Appendix A
Notice of Preparation

ESA

CITY OF SACRAMENTO

COMMUNITY DEVELOPMENT DEPARTMENT

CALIFORNIA

300 Richards Blvd.
3rd Floor
Sacramento, CA 95811

DATE: June 26, 2015

TO: Interested Persons

FROM: Tom Buford, Senior Planner
Community Development Department

RE: **NOTICE OF PREPARATION OF A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE RAILYARDS SPECIFIC PLAN UPDATE, KAISER PERMANENTE MEDICAL CENTER, AND MLS STADIUM**

COMMENT PERIOD

June 26, 2015 to July 30, 2015

SCOPING MEETING

Wednesday, July 22, 2015, Sacramento City Hall (see below)

INTRODUCTION

On December 11, 2007, the City of Sacramento (City) certified the Environmental Impact Report (EIR) and adopted a Mitigation Monitoring Program (MMP) for the Railyards Specific Plan (RSP).

Pursuant to section 21166 of the California Public Resources Code and section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the City is the Lead Agency for preparation of a Subsequent Environmental Impact Report (SEIR) for the proposed Railyards Specific Plan Update (RSPU) project. The SEIR will also address the environmental effects of a proposed Kaiser Permanente Medical Center (Medical Center) and a proposed Major League

Soccer (MLS) Stadium (Stadium), both of which will be constructed within the Railyards.

The SEIR will evaluate potential significant environmental effects of the RSPU as a whole, as well as the individual Medical Center and Stadium projects, and other actions and transactions associated with the RSPU and the projects. Written comments regarding the issues that should be covered in the SEIR, including potential alternatives to the RSPU, Medical Center, and Stadium projects and the scope of the analysis, are invited.

The SEIR for the RSPU, Medical Center, and Stadium projects is being prepared in compliance with the CEQA. The City, as Lead Agency, is issuing this Notice of Preparation (NOP) to inform trustee and responsible agencies, as well as the public, of its decision to prepare an SEIR, which will augment and supplement the 2007 RSP EIR. The purpose of the NOP is to provide information describing the projects and their potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the SEIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The SEIR will provide an evaluation of potential environmental impacts associated with implementation of the proposed RSPU, as well as development of the Medical Center and Stadium projects. The location of, and the environmental issue areas that may be affected by, development of the proposed projects are set forth below. The SEIR will update relevant parts of the 2007 RSP EIR, and will evaluate the potentially significant environmental impacts of the proposed projects, on both a direct and cumulative basis, identify mitigation measures that may be feasible to lessen or avoid such impacts, and identify alternatives to the proposed projects.

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the SEIR are invited from all interested parties. Written comments or questions concerning the SEIR for the proposed project should be directed to the environmental project manager at the following address by 5:00 p.m. on July 30, 2015. Please include the contact person's full name and address in order for staff to respond appropriately:

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Telephone: (916) 808-7931
E-mail: tbuford@cityofsacramento.org

SCOPING MEETING

A public scoping meeting will be held on Wednesday, July 22, 2015, from 6:00 p.m. to 8:00 p.m. at the following location:

City of Sacramento City Hall Foyer
915 I Street
Sacramento, CA 95814

Responsible agencies and members of the public are invited to attend and provide input on the scope of the SEIR. The scoping meeting will be conducted in an open house format. Written comments regarding relevant issues may be submitted at the meeting.

PROJECT LOCATION/SETTING

The RSP area is located in Sacramento County within the existing downtown area of the City of Sacramento, near the confluence of the American and Sacramento rivers, as depicted in Figure 1, Regional Location Map. The approximately 244-acre RSP area is immediately north of the Sacramento Central Business District, east of the Sacramento River and Interstate 5 (I-5), south of North B Street and the River District area, and west of the Alkali Flat Neighborhood, as depicted in Figure 2, Local Vicinity Map. The RSP area is generally bounded by the Sacramento River Water Treatment Plant and industrial and commercial uses along Richards Boulevard to the north; the Alkali Flat neighborhood to the southeast; the Central Business District to the south; Old Sacramento to the southwest; and I-5 and the Sacramento River to the west.

As depicted on Figure 2, the proposed Medical Center would be located on approximately 18 acres north of Railyards Boulevard and west of 5th Street. The Stadium is proposed on an approximately 12 to 14.5-acre site north of Railyards Boulevard, between 8th and 10th Streets.

PROJECT DESCRIPTION

The key project elements to be considered in the SEIR are described further below.

- The proposed RSPU would make refinements to: the density and intensity of land uses within the Office/Residential Mixed Use (ORMU), Residential/Commercial Mixed Use (RCMU) and Residential Mixed Use (RMU) zones; the configuration of the Central Shops Historic District; the configuration of roads within the RSP area; the arrangement of parks and open space within the RSP area; and the drainage system and potential outfall that would be built to serve the RSP area.
- The Medical Center would be a new, state-of-the-art, approximately 1.2 million square foot flagship medical center campus located on the western end of the RSP area, generally north of Railyards Boulevard and west of 5th Street. The Medical Center would provide health care services to residents of the City of Sacramento and surrounding communities. It would include a comprehensive range of inpatient and outpatient primary and specialty care services, including diagnostic and treatment services, surgical services and emergency care, urgent care, radiation/oncology services, diagnostic services including radiology and telemedicine, women's services, and supporting ancillary health care services such as optical, pharmacy, laboratory, education and training. The Medical Center would also include a helipad to provide for emergency patient transfers to nearby trauma centers, an Energy Center (central utility plant), surface and structured parking, as well as internal circulation and open space. The Medical Center would be designed LEED

Gold or equivalent and incorporate sustainable building standards and innovative green initiatives.

- The Stadium would be the home to a new Major League Soccer (MLS) team that would be an outgrowth of the United Soccer League (USL) Sacramento Republic FC. The Stadium could be designed to accommodate a range of attendees estimated at up to 25,000 for MLS soccer games, other sporting events, concerts, and other civic events. The Stadium would be constructed on approximately 12-14.5 acres of land, generally north of Railyards Boulevard, between 8th and 10th Streets.

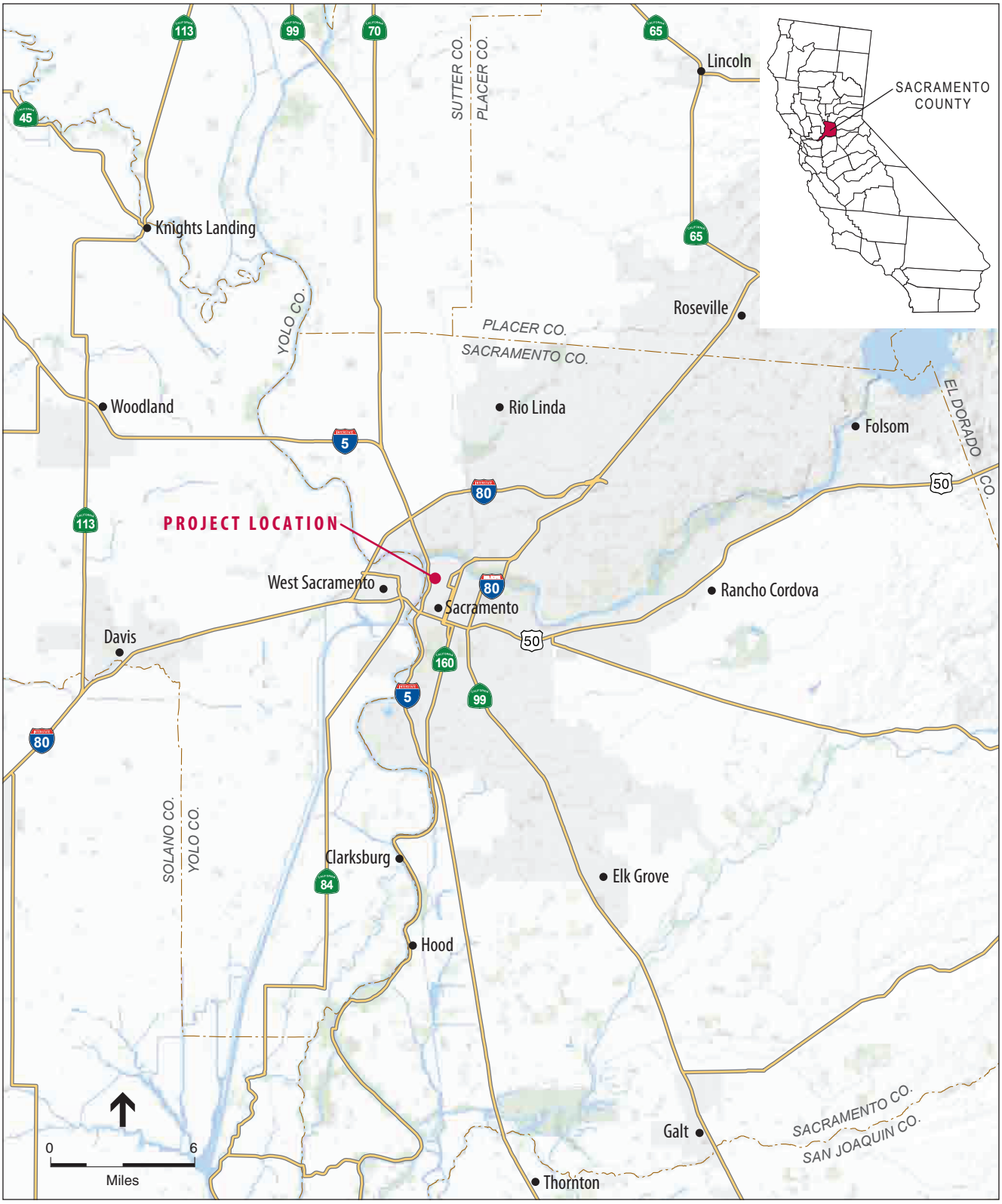
ENVIRONMENTAL EFFECTS AND SCOPE OF THE SEIR

The SEIR will analyze potentially significant impacts that result from implementation of the proposed RSPU, as well as development and operation of the proposed Medical Center and Stadium projects.

Pursuant to section 15063 (a), of the CEQA Guidelines, an Initial Study has not been prepared for the proposed project. However, the SEIR will update, augment, and evaluate, as appropriate, the environmental issues addressed in the 2007 RSP EIR, as well as additional environmental issues that may be relevant to the proposed RSPU, Medical Center and/or Stadium projects, including, but not limited to:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy and Energy Conservation
- Geology and Soils
- Greenhouse Gas Emissions And Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Light and Glare
- Noise
- Parking: On-street and parking structures
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic and Parking
- Utilities, including Stormwater, Wastewater, and Water Supply

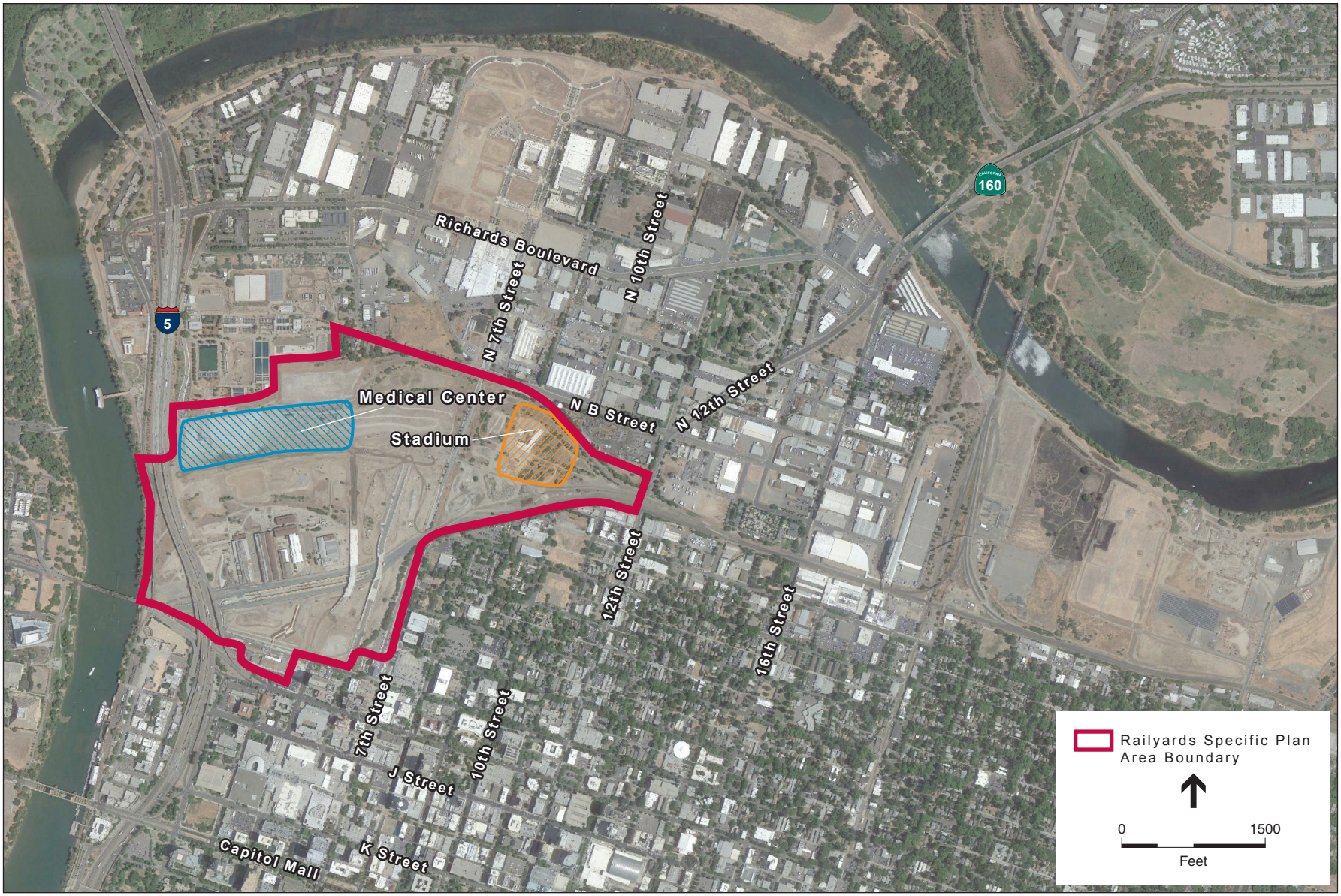
The SEIR will consider the alternatives addressed in the 2007 RSP EIR, and, as appropriate, will identify and evaluate a reasonable range of potentially feasible alternatives to the proposed projects.



SOURCE: CaSIL, 2013

Sacramento Railyards Specific Plan Update NOP . 150286

Figure 1
Regional Location Map



SOURCE: Google, 2014

Sacramento Railyards Specific Plan Update NOP . 150286

Figure 2
Local Vicinity Map

Appendix B
NOP Scoping Comment Letters

ESA

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

June 26, 2015

To: Reviewing Agencies

Re: Railyards Specific Plan Update, Kaiser Medical Center and MLS Stadium
SCH# 2006032058

Attached for your review and comment is the Notice of Preparation (NOP) for the Railyards Specific Plan Update, Kaiser Medical Center and MLS Stadium draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Tom Buford
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95816

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH#	2006032058
Project Title	Railyards Specific Plan Update, Kaiser Medical Center and MLS Stadium
Lead Agency	Sacramento, City of

Type	NOP Notice of Preparation
Description	The project would amend the development densities provided in the Railyards Specific Plan; approve a Medical Facility; and approve a stadium for a Major League Soccer franchise.

Lead Agency Contact

Name	Tom Buford		
Agency	City of Sacramento		
Phone	916 808 7931	*Fax*	
email			
Address	300 Richards Boulevard, 3rd Floor		
City	Sacramento	*State* CA	*Zip* 95816

Project Location

County	Sacramento		
City	Sacramento		
Region			
Cross Streets	East of the Sacramento River and I-5, south of North B Street		
Lat / Long			
Parcel No.	002-0010-056		
Township	*Range*	*Section*	*Base*

Proximity to:

Highways	I-5
Airports	
Railways	UPRR
Waterways	Sacramento River, American River
Schools	
Land Use	Vacant / Railyards Specific Planning District / Urban Center High and Urban Neighborhood High Density, Parks and Recreation

Project Issues	Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects
Reviewing Agencies	Resources Agency; Central Valley Flood Protection Board; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 2; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; California Highway Patrol; Caltrans, District 3 S; Air Resources Board; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 5 (Sacramento)

Date Received	06/26/2015	*Start of Review*	06/26/2015	*End of Review*	07/27/2015

Note: Blanks in data fields result from insufficient information provided by lead agency.

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2006032058

Project Title: Railyards Specific Plan Update, Kaiser Medical Center and MLS Stadium

Lead Agency: City of Sacramento | Contact Person: Tom Buford, Senior Planner
Mailing Address: 300 Richards Boulevard, Third Floor | Phone: 916-808-7931
City: Sacramento | Zip: 95816 | County: Sacramento

Project Location: County: Sacramento | City/Nearest Community: Sacramento
Cross Streets: East of the Sacramento River and Interstate 5 (I-5), south of North B Street | Zip Code: 95814
Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W Total Acres: 244
Assessor's Parcel No.: 002-0010-056 | Section: ____ Twp.: ____ Range: ____ Base: ____
Within 2 Miles: State Hwy #: Interstate 5 | Waterways: Sacramento River, American River
Airports: ____ | Railways: Union Pacific | Schools: ____

Document Type:

CEQA: ☒ NOP ☐ Draft EIR | NEPA: ☐ NOI | Other: ☐ Joint Document
☐ Early Cons ☒ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) 2006032058 ☐ Draft EIS ☐ Other: ____
☐ Mit Neg Dec Other: ____ ☐ FONSI

RECEIVED
JUN 26 2015
STATE CLEARING HOUSE

Local Action Type:

☐ General Plan Update ☒ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: SP Update

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☒ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☒ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☒ Other: Medical Center, Stadium

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☐ Vegetation
☐ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Vacant/Railyards Specific Planning District/Urban Center High and Urban Neighborhood High Density, Parks and Recreation

Project Description: *(please use a separate page if necessary)*

The project would amend the development densities provided in the Railyards Specific Plan; approve a Medical Facility; and approve a stadium for a Major League Soccer franchise

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NOP Distribution List

County: Sacramento **SCH#** 2006032058

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Denise Peterson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [ ] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Curt Babcock
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam
- [ ] **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **OES (Office of Emergency Services)**
  Marcia Scully
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Supervisor
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Patricia Maurice
- [ ] **Caltrans, District 5**
  Larry Newland
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [x] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial/Energy Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Karen Larsen – Asst Deputy
  Division of Drinking Water
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [x] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____
- [ ] _____
  Conservancy

Last Updated 6/23/2015

Department of Transportation
Michael J. Penrose, Director

Divisions
Administration
Maintenance & Operations
Engineering & Planning

County of Sacramento

July 6, 2015

Mr. Tom Buford
City of Sacramento Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

SUBJECT: COMMENTS ON THE NOTICE OF PREPARATION OF A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE RAILYARDS SPECIFIC PLAN UPDATE, KAISER PERMANENTE MEDICAL CENTER, AND MLS STADIUM

Mr. Buford:

The Sacramento County Department of Transportation has received the Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (EIR) for this Project, dated June 26, 2015. We appreciate the opportunity to the review this NOP and have no comments to offer at this time. We would ask that the City send us a copy of the EIR for review when it becomes available.

Should you have any questions, please feel free to contact me at (916) 874-6291.

Sincerely,

Matthew G. Darrow, PE, TE, PTOE.
Senior Transportation Engineer
Department of Transportation

MGD

Cc: Mike Penrose, DOT
Dan Shoeman, DOT
Dean Blank, DOT
Kamal Atwal, DOT
Juliette Robinson, DCD

REGIONALSAN
TAKING THE WASTE OUT OF WATER
Sacramento Regional County Sanitation District

Main Office
10060 Goethe Road
Sacramento, CA 95827-3553
Tel: 916.876.6000
Fax: 916.876.6160

Treatment Plant
8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tel: 916.875.9000
Fax: 916.875.9068

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Director of Policy & Planning

Karen Stoyanowski
Director of Internal Services

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Chief Financial Officer

Claudia Goss
Public Affairs Manager

www.srcsd.com

Printed on Recycled Paper

July 9, 2015

Mr. Tom Buford, Senior Planner
City of Sacramento, Community Development
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Subject: Notice of Preparation of a Subsequent Environmental Impact Report and Scoping Meeting for the Railyards Specific Plan Update, Kaiser Permanente Medical Center and Major League Soccer Stadium

Dear Mr. Buford:

Sacramento Regional County Sanitation District (Regional San) has the following comments regarding the Environmental Impact Report for the Railyards Specific Plan Update, Kaiser Permanente Medical Center and Major League Soccer Stadium project.

Regional San is not a land-use authority. Projects identified within Regional San planning documents are based on growth projections provided by land-use authorities. Sewer studies will need to be completed to assess the impacts of any project that has the potential to increase flow demands. Onsite and offsite impacts associated with constructing sanitary sewer facilities to provide service to the subject project should be included in this environmental impact report.

Customers receiving service from Regional San are responsible for rates and fees outlined within the latest Regional San ordinances. Fees for connecting to the sewer system are set up to recover the capital investment of sewer and treatment facilities that serves new customers. The Regional San ordinance is located on the Regional San website at http://www.srcsd.com/ordinances.php.

Local sanitary sewer service for the proposed project site will be provided by the City of Sacramento's local sewer collection system. Ultimate conveyance to the Sacramento Regional Wastewater Treatment Plant (SRWTP) for treatment and disposal will be provided via Sump 2/2A and the Regional San City Interceptor system. Cumulative impacts of the proposed project will need to be quantified by the project proponents via a sewer master plan to ensure wet and dry weather capacity limitations within Sump 2/2A and the City Interceptor system are not exceeded.

On March 13, 2013, Regional San approved the Wastewater Operating Agreement between Regional San and the City of Sacramento. The following flow limitations are outlined in this agreement:

Service Area	*Flow Rate (MGD)*
Combined Flows from Sump 2 and Sump 2A	*60*
Combined flows from Sumps 2, 2A, 21, 55, and 119	*98*
Total to City Interceptor of combined flows from Sumps 2, 2A, 21, 55, 119, and five trunk connections	*108.5*

The SRWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process. This allows most of the heavy organic solids to settle to the bottom of the tanks. These solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. These organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile "outfall" pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet weather flows while minimizing idle SRWTP facilities during dry weather. The SRWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.

A NPDES Discharge Permit was issued to Regional San by the Central Valley Regional Water Quality Control Board (Water Board) in December 2010. In adopting the new Discharge Permit, the Water Board required Regional San to meet significantly more restrictive treatment levels over its current levels. Regional San believed that many of these new conditions go beyond what is reasonable and necessary to protect the environment, and appealed the permit decision to the State Water Resources Control Board (State Board). In December 2012, the State Board issued an Order that effectively upheld the Permit. As a result, Regional San filed litigation in California Superior Court. Regional San and the Water Board agreed to a partial settlement in October 2013 to address several issues and a final settlement on the remaining issues were heard by the Water Board in August 2014. Regional San began the necessary activities, studies and projects to meet the permit conditions. The new treatment facilities to achieve the permit and settlement requirements must be completed by May 2021 for ammonia and nitrate and May 2023 for the pathogen requirements

Regional San currently owns and operates a 5-mgd Water Reclamation (WRF) that has been producing Title 22 tertiary recycled since 2003. The WRF is located within the SRWTP property in Elk Grove. A portion of the recycled water is used by Regional San at the SRWTP and the rest is wholesaled to the Sacramento County Water Agency (SCWA). SCWA retails the recycled water, primarily for landscape irrigation use, to select customers in the City of Elk Grove. It should be noted that Regional San currently does not have any planned facilities that could provide recycled water to the proposed project or its vicinity. Additionally, Regional San is not a water purveyor and any potential use of recycled water in the project area must be coordinated between the key stakeholders, e.g. land use jurisdictions, water purveyors, users, and the recycled water producers.

If you have any questions regarding these comments, please contact me at 916-876-6104.

Sincerely,

Robb Armstrong
Regional San Development Services & Plan Check

cc: SASD Development Services
Sarenna Moore – Policy & Planning-Long Range Planning

CITY OF WEST SACRAMENTO

CITY HALL
1110 West Capitol Avenue
West Sacramento, CA 95691

City Council
(916) 617-4500

City Manager's Office
City Clerk
Early Learning Services
Information Technology
(916) 617-4500
Economic Development
(916) 617-4535

Community Development
Planning/Development Engineering
(916) 617-4645
Housing/Community Investment
(916) 617-4555
Building
(916) 617-4683
Code Enforcement
(916) 617-4925

Public Works
Administration
Transportation
Engineering
Flood Protection
(916) 617-4850
Environmental Services
(916) 617-4590
Utility Billing
(916) 617-4589

Administrative Services
Finance
(916) 617-4575
Human Resources
(916) 617-4567

Parks & Recreation
Administration
(916) 617-4620
Recreation Center
2801 Jefferson Blvd.
West Sacramento, CA 95691
(916) 617-4770
Community Center
1075 West Capitol Ave.
West Sacramento, CA 95691
(916) 617-5320

FIRE
2040 Lake Washington Blvd.
West Sacramento, CA 95691
(916) 617-4600

POLICE
550 Jefferson Boulevard
West Sacramento, CA 95605
(916) 617-4900

PUBLIC WORKS
Operations
1951 South River Road
West Sacramento, CA 95691
(916) 617-4850

July 28, 2015

Tom Buford, Senior Planner
City of Sacramento, Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

Re: Railyards Specific Plan Update Subsequent EIR Notice of Preparation

Dear Mr. Buford:

The City of West Sacramento is encouraged to see interest in the Railyards. The project will certainly have benefits of regional significance. To assist the City of Sacramento in preparing the SEIR for the Railyards Specific Plan update, the City of West Sacramento has the following comments and recommendations:

1. The SEIR should evaluate the proposed Downtown/Riverfront Streetcar network and its future operation. The starter line (Route A) for this regional circulator will provide connections between West Sacramento's Civic Center, the Sacramento Intermodal Transportation Facility, the State Capitol, the convention center, and Midtown. Future streetcar lines include Route E that will connect across the new C Street/Railyards Bridge with West Sacramento's Washington District and Bridge District neighborhoods. The streetcar project could both mitigate traffic and air quality impacts and could extend the economic benefit of the Railyards far beyond its localized impact by providing riders an easier method to connect destinations.
2. The cumulative analysis should account for planned development as described in the Washington Specific Plan and the Bridge District Specific Plan.
3. The EIR should consider the plans for new bridges over the Sacramento River including the Broadway Bridge and the C Street/Railyards Bridge.
4. The following intersections should be studied employing West Sacramento level of service thresholds and include any air quality impacts that may result:
   a) 3rd & Tower Bridge Gateway
   b) 5th & Tower Bridge Gateway
   c) Garden St & Tower Bridge Gateway
   d) 3rd & C Streets
   e) 3rd & E Streets
   f) 3rd & F Streets
   g) 3rd & G Streets
   h) Bridge St & South River Rd
   i) Jefferson Blvd & US 50
   j) 5th & C Streets

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5. The proposed projects in the Railyards may have an impact on the following bridges, freeways and regional facilities. Potential impacts to these facilities should be examined in the traffic analysis and the risk of upset and air quality sections of the EIR:
   a) Tower Bridge Operations
   b) I Street Bridge Operations
   c) Interstate 5 Operations and Bus/Carpool Lanes Project.
   d) US 50 Operations
   e) RT & YCTD Transit Services
   f) Raley Field Operations

6. The recreation chapter of the EIR should address potential impacts to the West Sacramento Riverwalk Park resulting from additional demand from increased employment in the Railyards.

The City of West Sacramento believes there are a number of projects and programmatic solutions that could improve traffic, risk of upset air quality and other transportation impacts in the Railyards, the downtown core, and West Sacramento. We recommend that the EIR analyze the following potential solutions to impacts that may be created by the project:

1. Joint Comprehensive Parking Program-The two cities have started talks regarding shared services for parking in the downtown core. Implementation of this shared service would provide better coordination for parking which would lessen impacts arising from Railyards development on traffic and parking operations.
2. Regional Bike Share – the regional bike share project, of which both West Sacramento and Sacramento are members could reduce vehicle trips to and from the Railyards if bike share facilities are included as part of the projects.
3. I Street Bridge Replacement Project – Both cities have jointly obtained funding for the replacement of the I Street Bridge. This project could improve access between the project area and West Sacramento.
4. Bi-City Traffic Signal Synchronization/Connection- both cities employ automated traffic management systems. Coordination of these traffic signals could lessen traffic impacts created by Railyards development.
5. Emergency Evacuation Plan Coordination- emergency evacuation plans for both cities have traditionally not been coordinated. Given the location of large public facilities (Raley Field, the ESC, MLS stadium), emergency evacuation plans should be coordinated to prevent problems in the event of a disaster in the downtown core area including West Sacramento.

Thank you for sending the NOP to the City of West Sacramento. We appreciate the opportunity to provide early input on the project. If you have any questions, please contact me or David Tilley at (916) 617-4645 or via email at charlineh@cityofwestsacramento.org or davidt@cityofwestsacramento.org.

Sincerely,

Charline R. Hamilton
Community Development Director

Cc: Martin Tuttle, City Manager
Denix Anbiah, Public Works Director

SACRAMENTO AREA
BICYCLE ADVOCATES

909 12th St, Ste. 116
Sacramento, CA 95814

sacbike.org
saba@sacbike.org
916 444-6600

July 28, 2015

Tom Buford, Senior Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, CA 95811-0218
tbuford@cityofsacramento.org

Subject: Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (SEIR) for the Railyards Specific Plan (RSP) Update, Kaiser Permanente Medical Center, and MLS Stadium (P14-012)

Dear Mr. Buford:

Thank you for the opportunity to comment on the subject NOP. We are excited to see progress on developing the Railyards project area and look forward to it being a state of the art neighborhood for comfortable and friendly bicycle access for all ages and abilities. Both Kaiser Permanente and the Sacramento Republic Football Club, the intended occupant of the MLS Stadium, have already demonstrated their interest and commitment to fostering bicycling as a healthy and sustainable form of modern transportation.

The proposed project will cause a significant adverse effect on the environment if it will not adequately provide access by bicycle. Adequacy of bicycle access happens in three ways:

Adequate bicycle parking. The project must comply with Sacramento's requirements for short-term and long-term bicycle parking. The Medical Center is proposed to have 1.2 million square feet which will require 180 long-term bicycle parking spaces for employees or long-term patients and 60 short-term spaces for short-term visitors. We encourage the project to go beyond the basic requirements by providing bicycle parking that is noteworthy as an amenity of the project and therefore a selling point to potential employees and customers that is consistent with Kaiser's health care mission. For example, the Medical Center should include a state-of-the-art "bike station" to serve employees and customers with a secure, indoor, 24-hr accessible bike-parking facility; such a facility might also provide tools and supplies for minor bike repairs and servicing (e.g. flat repairs, tire inflation). The Sacramento Republic has provided valet parking for bicycles at its games since its first game in 2014. As many as 400 attendees have ridden bikes to games at its remote Cal Expo location. A much higher proportion of attendees at the proposed MLS Stadium will be expected to ride bicycles given its more accessible location to large residential areas. Therefore, the MLS Stadium should include a design for a bike parking operation that will hold at least 1,000 bikes, possible distributed among two or more locations.

Adequate bicycle access within the project. Because the proposed Medical Center and MLS Stadium each will occupy multiple city blocks, internal access by bicycle from the roadway network to bicycle parking locations will be critical. We request that bikeways be provided as part of the internal promenades through the sites. These bikeways should be delineated by pavement-surface treatments to show cyclists where they should ride to avoid conflicts with pedestrians. Signage can be used to guide cyclists to long-term bike parking and to exits from the project to the surrounding roadway network.

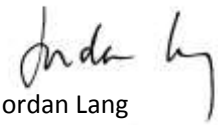
Adequate bicycle access to the project sites. The project sites will be located on roadways to be developed through the Railyards. It will be critical for the proposed project to ensure it provides access for all ages and abilities of cyclists to and along these roadways from key rider sources like the Sacramento River Parkway, midtown Sacramento, and East Sacramento. Because of the high number of cyclists expected to ride to MLS soccer games, either Class 1 (bike trails) or Class 4 (protected bike lanes) should be provided to the stadium site to prevent conflicts between high vehicle volumes and high bicycling volumes.

The subject EIR must address these 3 dimensions of adequate bicycle access.

SABA works to ensure that bicycling is safe, convenient, and desirable for everyday transportation. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient, and least congesting form of transportation.

Thank you for considering our comments.

Sincerely,



Jordan Lang
Project Analyst

CC: Paul Philley, SMAQMD (pphilley@airquality.org)
Ed Cox, City of Sacramento Alternative Modes Coordinator (ecox@cityofsacramento.org)

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

July 29, 2015

Via E-Mail Only

Tom Buford, TBuford@cityofsacramento.org

COMMENTS ON CITY OF SACRAMENTO'S JUNE 26, 2015 NOTICE OF PREPARATION FOR A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT FOR THE RAILYARDS SPECIFIC PLAN UPDATE

Dear Mr. Buford:

Department of Toxic Substances Control (DTSC) has received and reviewed the June 26, 2015 Notice of Preparation (NOP) for the Railyards Specific Plan Update (RSPU) Subsequent Environmental Impact Report (SEIR). The RSPU SEIR would update the December 11, 2007 Railyards Specific Plan (RSP) Environmental Impact Report (EIR). The RSPU SEIR will also address the environmental effects of a proposed Kaiser Permanente Medical Center and Major League Soccer Stadium which would be constructed within the Railyards.

DTSC appreciates the opportunity to review and comment on the NOP and is eager to participate and provide information to facilitate the implementation of the California Environmental Quality Act process. Close communication between all responsible agencies during preparation of the RSPU SEIR will be essential to assure the document is complete and up to date. Below are points that should be discussed in the RSPU SEIR.

Scope of RSPU SEIR

As you are probably aware, DTSC is providing lead regulatory oversight for the cleanup of contaminated soil, soil gas, and groundwater at the Railyards. DTSC's review on the scope of the RSPU SEIR focused on the aspects related to the historical and ongoing remedial measures at the Railyards. The sections in the RSPU SEIR titled "Hazards and Hazardous Materials" and "Hydrology and Water Quality" should consider and discuss Railyards remediation issues.

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The RSP EIR included a Mitigation Monitoring Program that became ordinance. The RSPU SEIR should continue this program for construction of new development and infrastructure. DTSC will focus on mitigations regarding hazardous materials.

Additionally, the RSP EIR and associated documents mention a Tri-Party Memorandum of Understanding (MOU) that was developed between DTSC, City of Sacramento, and S. Thomas Enterprises of Sacramento, LLC (STES). Since STES' loss of the Railyards by way of foreclosure resulted in the MOU being ineffective, discussion of the MOU needs to be updated in the RSPU SEIR.

Cleanup at the Railyards

The soil cleanup for the following Study Areas have been completed, with the exception of inaccessible areas: Sacramento Station, Northern Shops, Central Corridor, Car Shop Nine, and Lagoon. Inaccessible areas include soil beneath the former platforms in Sacramento Station and beneath Track 150 east of 7th Street in Car Shop Nine that will be remediated when they become accessible; soil near the Central Shops border in Northern Shops that will be remediated this year; and soil beneath a water line in Northern Shops that will remain inaccessible. Soil remediation will be certified complete when the required land use covenants (LUCs) are recorded.

The soil remedies for the Central Shops and Lagoon Northwest Corner Study Areas are ongoing. The soil remedy for the Manufactured Gas Plant Study Area has not yet been selected.

The final groundwater remedies for South Plume and Lagoon Groundwater Study Areas have not been completed, but interim remedial measures have been in place. The South Plume remedy is currently being designed and implemented, and the Lagoon Groundwater remedy is being evaluated.

The Railyards was not remediated to levels protective for unrestricted land use, so recordation of a LUC is required to limit land use and require exposure controls and mitigation measures to protect human health and the environment. DTSC is working with the current Railyards owner to record a LUC.

Examples of exposure controls include having a compliant layer/barrier and signage to prevent access to native soil. Also, a soil and groundwater management plan would be required prior to disturbance of either media to identify procedures for safe and appropriate handling. Lastly, vapor intrusion mitigation measures would be required as part of new construction of enclosed structures unless data is provided to show they aren't needed.

Medical Center and Stadium

The Medical Center is approximately 18 acres in an area bounded by Bercut Street, South Park Street, 5th Street, and Railyards Boulevard. This area is in the Northern Shops and Lagoon Study Areas, located above the Lagoon Groundwater Study Area. The soil there has been cleaned up, and groundwater remediation is ongoing.

The Stadium is approximately 12-14.5 acres in an area bounded by 8th Street, North B Street, 10th Street, and Railyards Boulevard. This area is in the Lagoon and Car Shop Nine Study Areas, and located above the Lagoon Groundwater and South Plume Study Areas. The soil there has been remediated, except for under Track 150, and groundwater remediation is ongoing.

DTSC looks forward to receiving the RSPU SEIR for a complete review of the specific points related to remediation of contamination at the site. As the RSPU SEIR project proceeds, and if you have any questions regarding site investigation and remediation, please contact me at (916) 255-3601 or Ruth.Cayabyab@dtsc.ca.gov.

Sincerely,

Ruth Cayabyab

Ruth Cayabyab
Brownfields and Environmental Restoration Program

CC: Brad Shelton, P.G., Brad.Shelton@waterboards.ca.gov
Fernando Amador, P.E., Fernando.Amador@dtsc.ca.gov
Karl Kurka, KKurka@cityofsacramento.org

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Eric Gill, Financial Secretary-Treasurer *Hernando Ramos Tan, President* *Godfrey Maeshiro, Senior Vice-President*

July 29, 2015

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

Re: Comments on Notice of Preparation of Subsequent Environmental Impact Report and Scoping Meeting for the Railyards Specific Plan Update

Please accept this response to the referenced Notice of Preparation of a Subsequent Environmental Impact Report (SEIR). Please **include the following contact as an interested party** to the distribution list to receive all updates and notifications for this Project:

Ivan Hou
Unite Here Local 5
1516 South King Street
Honolulu, HI 96826
Email: ihou@unitehere5.org

The City's SEIR should take a critical look at Kaiser Permanente's Medical Center proposal and ask if it will significantly advance Sacramento's healthcare industry. The Railyard site, based on the 2007 Railyards Specific Plan (RSP), may be better suited for other developments that diversify the city's economic activities. The 2007 RSP provided a cohesive plan for the site with commercial, retail and residential mixed uses. A medical and sports complex is an incongruent departure from the RSP. Alternative uses for the Railyard site should be a point of focus of the SEIR.

The Kaiser medical center is a zero-sum development. The medical center was reported to provide about the same number of jobs as the Morse Avenue facility it will replace[1]. Kaiser wants to build this new facility a mere six and a half miles away from the old facility. The new location moves the medical facility further away from densely populated neighborhoods to the west. Sacramento will have one Kaiser hospital whether or not this development is approved. In fact, the City would probably benefit from more choice and competition if a *different* healthcare company built at the Railyard. Granting Kaiser the Railyard site is a lateral move for the City. In contrast, the Major League Soccer facility is at least a unique addition to the city's development mix.

[1] http://www.sacbee.com/news/business/article25986196.html

The SEIR should evaluate whether the assignment of Railyard acreage to build a Kaiser facility and sports stadium is the best use of the site and whether it will impact the City's ability to enhance the downtown and waterfront neighborhoods with the mixed uses described in the 2007 RSP, i.e. will the proposed facilities limit the viability of commercial, retail and residential mixed-use developments in the remainder of the site?

Kaiser's financial reserves should be incorporated into the SEIR's evaluation of alternative uses and mitigation actions. Kaiser is a tax-exempt organization but is immensely profitable. Much of Kaiser's profitability comes from taxpayers since many of Kaiser's members are public sector employees. CalPERS alone provide Kaiser with 500,000 members. Kaiser:

- held $32.8 *billion* in unrestricted cash and investment reserves at the end of 2014;
- made $3.1 billion in net income in 2014;
- averaged nearly $2.5 billion in net income each year over the past five years;
- the CEO and Chairman earned $10 million in 2012 while the board of directors received an average salary of $220,000.

The money Kaiser spends each year for marketing, executive pay, capital projects and retained as net income is money not used for direct patient care. Indeed, Kaiser is in the midst of a ten year plan to spend $30 billion on capital expenditure projects. Kaiser has the financial resources to implement a range of development plans including refurbishment of existing facilities. Negative impacts to Kaiser from City policy decisions that do not meet its organizational goals are minimized by its financial flexibility. The City should not be too focused on making Kaiser happy. The City should only commit to a Railyard Kaiser facility if it is the best use for the site that benefits the region for the long term, regardless of what Kaiser wants. The SEIR should take Kaiser's financial resources into account when evaluating alternative uses for the site and mitigation actions for environmental impacts.

Regards,

Ivan Hou
Unite Here Local 5
1516 South King Street
Honolulu, HI 96826
Tel: 808-941-2141 ext. 267
Email: ihou@unitehere5.org

CC:

Tom Buford via email
Sacramento City Council

PRESERVATION
SACRAMENTO

(916) 202-4815 - PO Box 162140, Sacramento CA 95816 - info@preservationsacramento.org - PreservationSacramento.org

July 30, 2015

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd, Third Floor
Sacramento, CA 95811

RE: Railyards Specific Plan Notice of Preparation Response

The Board of Directors of Preservation Sacramento request that the City of Sacramento include the following items as areas within the scope of analysis of the SEIR proposed for the Railyards Specific Plan Update.

First, the Central Shops Historic District should be maintained and protected, with adjustments only as necessary to provide better circulation via relocation of Camille Avenue farther north, and inclusion of potential new construction in the former Transfer Table location west of the Paint Shop, in order to facilitate use of that large open space in the absence of the already removed eastern Transfer Table. We strongly encourage the city to require nomination of the Central Shops for listing in the National Register of Historic Places, as a potential mitigation method and to facilitate adaptive reuse of the historic Shops buildings.

Second, the proposed reduction of housing units in the Railyards from 12,000 to approximately 6,000 must be scrutinized for ways to minimize loss of proposed housing, including utilization of the ORMX zoned properties for new construction that combine office and employment center uses with residential floors. Sacramento's central city currently employs approximately 90,000 people, with a workforce population of only approximately 12,000. In order to avoid significant impacts to transportation networks via a loss of proposed housing, as much housing as possible should be retained in the revised plan. Significant reductions in proposed population density, coupled with increases in commercial space, could result in greatly increased traffic as people must commute to this new job center instead of living in close proximity to work. This means potential dramatic increases in vehicle miles traveled compared to the numbers provided in the original Railyards EIR.

Third, because this new neighborhood will require neighborhood-serving retail in order to avoid additional traffic impacts from residents leaving the neighborhood to perform regular shopping activities, commercial programming within the district should focus on neighborhood-serving retail, such as grocery stores, hardware, clothing, and other retail uses, rather than focusing on entertainment, dining and other commercial uses that do not satisfy basic needs for neighborhood residents. Another pressing neighborhood need is a site for educational facilities, as Sacramento's central city has only two elementary schools, no junior high or high schools or full-sized college campuses. Educational facilities provide employment while also filling a growing need for future downtown residents who wish to raise their families in the heart of the city. Failing to provide these facilities may also result in increased vehicle miles and resultant pollution impacts, as lack of these services means they must travel elsewhere to satisfy household needs and transport children to school.

William Burg, President, Preservation Sacramento Board of Directors

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, STE 150 – MS 19
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 263-1796
TTY 711

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July 30, 2015

032015-SAC-0097
03-SAC-5 / 24.02
SCH# 2006032058

Mr. Tom Buford
Community Development
City of Sacramento
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Railyards Specific Plan Update (RSPU), Kaiser Medical Center (KMC) and Major League Soccer Stadium (MLSS) Project – Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (SEIR)

Dear Mr. Buford:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. The proposed RSPU includes construction of a 1.2 million square foot KMC, and a MLSS to house a new professional soccer team and up to 25,000 attendees at soccer games and other events. The proposed RSPU will also include refinements to the density and intensity of land uses within the Office/Residential Mixed Use, Residential/Commercial Mixed Use, and Residential Mixed Use zones. The project is located immediately north of downtown Sacramento on both sides of Interstate 5 (I-5), with I-5 providing direct freeway access to the project site via the Richards Blvd., I Street, and J Street interchanges. Due to the project's location, scale of development and potentially significant impacts to mainline I-5 and its interchanges (IC), Caltrans views the project as being of regional and interregional significance. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this local development for impacts to the State Highway System in keeping with our mission, vision and goals for sustainability/livability/economy, and safety/health. We provide these comments consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl. The following comments are based on the NOP.

Transportation, Traffic, and Parking

The second paragraph on page 4 of the NOP states that the ensuing SEIR will evaluate potential environmental issues regarding Transportation, Traffic, and Parking. Caltrans requests that evaluation include an analysis of local and State facilities within the project area to determine

potential operational impacts that may occur as a result of the implementation of the proposed project. The analysis must also include proposed improvements or suggestions to mitigate those potential impacts to the facilities. The study is to include, I-5, the I-5/Richards Blvd. IC, 7th St., State Route (SR) 160, 12th St., 16th St., and 10th St. The study should also include an existing-plus-project scenario, and future-plus-project scenario analyses.

Caltrans' concerns about potential mitigation for significant impacts that may be identified in the SEIR, to the State Highway System, could be addressed by payment to the I-5 Subregional Corridor Mitigation Program (SCMP). The SCMP would be a voluntary impact fee for new developments within the I-5 corridor between Elk Grove, downtown Sacramento and West Sacramento that would be used to construct a set of transportation improvements including very relevant projects like the American River Bridge Crossing, the Green Line extension, the Sacramento Streetcar, and the Richards Blvd. IC projects.

The SCMP would not encompass when a development would create significant impacts to intersections where freeway ramps meet local roadway, including Intersection level of service impacts; determining if traffic added by a development would cause off-ramp traffic to back-up onto the freeway mainline; and determining if the development would cause existing or future conditions to deteriorate to the point where there is potential for increased collisions.

Transportation Management Plan (TMP)

If it is determined that traffic restrictions and detours are needed on or affecting State highways, a TMP or construction Traffic Impact Study may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with Caltrans' *Manual on Uniform Traffic Control Devices.* Further information is available for download at the following web address: http://www.dot.ca.gov/hq/traffops/engineering/mutcd/pdf/camutcd2014/Part6.pdf.

Encroachment Permit

Please be advised that any work or traffic control that would encroach onto the State Right of Way (ROW) requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State ROW must be submitted to the address below.

Charles Laughlin
California Department of Transportation
District 3 Office of Permits
703 B Street
Marysville, CA 95901

Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits/.

Please provide our office with copies of any further actions regarding this project. We would appreciate the opportunity to review and comment on any changes related to this development.

If you have any questions regarding these comments or require additional information, please contact Arthur Murray, Intergovernmental Review Coordinator at (916) 274-0616 or by email at: arthur.murray@dot.ca.gov.

Sincerely,

Eric Fredericks

ERIC FREDERICKS, Branch Chief
Regional Planning – South

c: Scott Morgan, State Clearinghouse

SMUD™

July 30, 2015

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

Subject: Notice of Preparation of a Subsequent Environmental Impact Report for the Railyards Specific Plan Update, Kaiser Permanente Medical Center, and MLS Stadium

Dear Mr. Buford,

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (SEIR) for the Railyards Specific Plan Update, Kaiser Permanente Medical Center, and MLS Stadium. SMUD is the primary energy provider for Sacramento County and the proposed project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the SEIR, the Railyards Specific Plan Update, Kaiser Permanente Medical Center, and MLS Stadium will acknowledge any project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/do-business-with-smud/documents/Guide-for-Transimssion-Encroachment.pdf. Some of these requirements include the following
  - https://www.smud.org/en/business/customer-service/support-and-services/documents/Underground-Structure-T007.pdf
- Utility line routing
- Electrical load needs/requirements
  1. Energy Center (central utility plant)
- Energy Efficiency
- Climate Change

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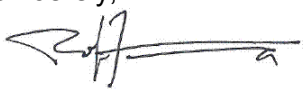
SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed project. Please ensure that the information included in this response is conveyed to the project planners and the appropriate project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this project. Again, we appreciate the opportunity to provide input on this NOP. If you have any questions regarding this letter, please contact Rob Ferrera, SMUD Environmental Specialist at rob.ferrera@smud.org.

Sincerely,



Rob Ferrera
Environmental Specialist
Environmental Management
Legislative & Regulatory Affairs
Sacramento Municipal Utility District

Cc: Rob Ferrera
Jose Bodipo-Memba
Pat Durham
Joseph Schofield
Mike Wirsch
Mike Deis

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SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

Larry Greene
AIR POLLUTION CONTROL OFFICER

July 30, 2015

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
tbuford@cityofsacramento.org

RE: Railyards Specific Plan Update (SAC200500788)

Mr. Buford,

The Sacramento Metropolitan Air Quality Management District (The District) thanks the City of Sacramento for the opportunity to comment on the proposed project to modify the Railyards Specific Plan to include a hospital campus and soccer facility. The District is required by law to "represent the citizens of the Sacramento district in influencing the decisions of other public and private agencies whose actions may have an adverse impact on air quality within the Sacramento district."[1] We offer our comments in that spirit.

Construction Emissions

Construction of the current specific plan is currently being done consistent with the Railyards Construction Mitigation Plan. Altering the land uses, tentative map, and zoning may result in more or less anticipated construction emissions. These emissions should be discussed, quantified, and disclosed in the manner described in Chapter 3 of the District's "CEQA Guide to Air Quality Assessment."[2] If the anticipated emissions would vary significantly from the prior environmental document, the construction mitigation plan should be amended to account for the change.

With respect to greenhouse gas emissions generated from the construction of the project, these emissions should be discussed, quantified, and disclosed in the manner described in Chapter 6 of the District's "CEQA Guide to Air Quality Assessment." Per the guidance, the District recommends that GHG emissions be minimized during the

[1] California Health and Safety Code §40961
[2] http://www.airquality.org/ceqa/ceqaguideupdate.shtml

construction phase utilizing the District's "Guidance for Construction GHG Emissions Reductions."[3]

Operational Criteria Emissions

The Railyards Specific Plan's Mitigation Monitoring and Reporting Plan (MMRP) required the adoption of an Air Quality Mitigation Plan (AQMP). The current AQMP incorporates 20 measures, and effectiveness of each measure was scaled based on the land uses and circulation plan anticipated in the original environmental documents. Changing the tentative map, zoning, land uses, and intensities may alter the effectiveness of the 20 measures incorporated in the current AQMP. The emissions from altering the project should be discussed, quantified, and disclosed in the manner described in Chapter 4 of the District's "CEQA Guide to Air Quality Assessment."[4] If the effectiveness of the AQMP is degraded with the proposed changes, the City and proponents should work with the District to amend the AQMP to maintain current levels of effectiveness.

Greenhouse Gas Emissions

Operation of the project may result in an increase in Greenhouse Gas emissions. These emissions should be discussed, quantified, and disclosed in the manner described in Chapter 6 of the District's "CEQA Guide to Air Quality Assessment." The proponents should also discuss the project's consistency with existing Greenhouse Gas reduction plans, such as the Metropolitan Transportation Plan/Sustainable Communities Strategy, the California Air Resources Board Scoping Plan and the City of Sacramento Climate Action Plan.

Permitted and Unpermitted sources of Toxic Air Contaminants

The City should make a concerted effort to disclose potential TAC-related health impacts from locating sources of TAC emissions in close proximity to existing or future planned receptors, and utilizes best practices when locating receptors in close proximity to an existing or future planned source of TAC emissions. For example, proponents should be mindful of planning outdoor space at the hospital campus near Interstate 5, utilizing best practices in its design.

Permitted sources can be identified using ARB's Community Health Air Pollution Information System (CHAPIS) and supplemented using the EPA's Toxics Release Inventory Explorer search tools. For more information, refer to Chapter 5 of our CEQA Guide.

Additionally, the proposed project may require permits from the SMAMQD (Authority to Construct and Permit to Operate) due to equipment needed for the uses (such as back-

[3] http://www.airquality.org/ceqa/cequguideupdate/Ch6ConstructionMitMeasures.pdf
[4] http://www.airquality.org/ceqa/ceqaguideupdate.shtml

up generators and boilers at the Hospital Campus). The Environmental Document should discuss the impacts of these sources, and the District recommends proponents contact a permitting engineer in the Stationary Sources Division at (916) 874-4800.

Sustainable Modes Service to Soccer Facility

Sports and entertainment venues deserve special attention to ensure sustainable modes can handle peak loads from patrons. Bicycle valet, bus layover facilities, and expanded waiting areas at the light rail station should be considered in the transportation management plan to minimize vehicle miles traveled.

General comments

To summarize, the District requests that the City consider construction and operational emissions, as well as toxic air contaminants. All projects are subject to SMAQMD rules in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling (916) 874-4800.

The SMAQMD thanks the City of Sacramento for the opportunity to comment on this project. If you have additional questions or require further assistance, please contact me at pphilley@airquality.org or (916) 874-4882.

Sincerely,

Paul Philley, AICP
Associate Air Quality Planner/Analyst
Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor
Sacramento, CA 95814

Attachment: Construction Mitigation (Basic and Enhanced)
Attachment: SMAQMD Rules & Regulations Statement

BASIC CONSTRUCTION EMISSION CONTROL PRACTICES

The following practices are considered feasible for controlling fugitive dust from a construction site. Control of fugitive dust is required by District Rule 403 and enforced by District staff.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel powered equipment. The California Air Resources Board enforces the idling limitations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

Although not required by local or state regulation, many construction companies have equipment inspection and maintenance programs to ensure work and fuel efficiencies.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Lead agencies may add these emission control practices as Conditions of Approval (COA) or include in a Mitigation Monitoring and Reporting Program (MMRP).

ENHANCED EXHAUST CONTROL PRACTICES

1. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.

    - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
    - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
    - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
    - The District's Equipment List Form can be used to submit this information.
    - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

2. The project representative shall provide a plan for approval by the lead agency and District demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.

    - This plan shall be submitted in conjunction with the equipment inventory.
    - Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
    - The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

3. The project representative shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.

    - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately.

Enhanced Exhaust Control Practices

- Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly.
- A visual survey of all in-operation equipment shall be made at least weekly.
- A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.

4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supercede other District, state or federal rules or regulations.

SMAQMD Rules & Regulations Statement (revised 3/12)

*The following statement is recommended as standard condition of approval or construction document language for **all** development projects within the Sacramento Metropolitan Air Quality Management District (SMAQMD):*

All projects are subject to SMAQMD rules in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916.874.4800. Specific rules that may relate to construction activities or building design may include, but are not limited to:

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD early to determine if a permit is required, and to begin the permit application process. Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc.) with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a California Air Resources Board portable equipment registration. Other general types of uses that require a permit include, but are not limited to dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.

Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities, storage or any other construction activity to prevent airborne dust from leaving the project site.

Rule 414: Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU PER Hour. The developer or contractor is required to install water heaters (including residence water heaters), boilers or process heaters that comply with the emission limits specified in the rule.

Rule 417: Wood Burning Appliances. This rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.

Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.

Rule 460: Adhesives and Sealants. The developer or contractor is required to use adhesives and sealants that comply with the volatile organic compound content limits specified in the rule.

Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

Naturally Occurring Asbestos: The developer or contractor is required to notify SMAQMD of earth moving projects, greater than 1 acre in size in areas "Moderately Likely to Contain Asbestos" within eastern Sacramento County. Asbestos Airborne Toxic Control Measures, Section 93105 & 93106 contain specific requirements for surveying, notification, and handling soil that contains naturally occurring asbestos.

THE RIVER DISTRICT

August 14, 2015

Via Electronic Mail
tbuford@cityofsacramento.org

Tom Buford, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

Re: Comment Letter, Railyards Specific Plan Update, Subsequent Environmental Impact Report

Dear Mr. Buford:

Thank you for the opportunity to provide comments on the California Environmental Quality Act (CEQA) scoping documents for the Subsequent Environmental Impact Report for the Railyards Specific Plan Update, Kaiser Permanente Medical Center and MLS Stadium ("SEIR").

The SEIR will consider the impacts of a Kaiser Permanente Medical Center and Major League Soccer ("MLS") Stadium, both of which are proposed to be constructed within the Railyards Specific Plan area ("RSP"). The River District Business Association ("Association") is a private, non-profit business association charged with managing and promoting programs to strengthen the economic and cultural well being of the River District Property and Business Improvement District area and the River District Special Planning District. The RSP area is located immediately south of the River District; therefore, the Association's members may be affected by impacts related to the proposed Medical Center and MLS Stadium.

The Association supports the Medical Center or the MLS Stadium. These facilities may, however, create greater and/or different impacts than were evaluated under the 2007 RSP EIR. The Association provides the following comments in the spirit of assuring that these impacts are considered in the SEIR.

1. <u>Transportation and Traffic</u>

The MLS Stadium is likely to create more traffic congestion, and have a greater impact on circulation, than the land uses that were anticipated in the 2007 EIR, especially during peak periods for Stadium events. The SEIR should address impacts related to:

a) Greater vehicle traffic on North 10th Street and North B Street;
b) Greater pedestrian and bicycle traffic on North 10th Street and North B Street;
c) Additional bicycle traffic and pedestrian traffic to/from transit stations and bus stops;
d) Large vehicles (trucks, vans, etc.) delivering equipment and supplies for special events taking place at the Stadium;

e) Larger numbers of vehicles on local streets at game times, and at times of special events at the Stadium.

The SEIR should also consider circulation options for most efficiently bringing the increased number of vehicles to and from the adjacent major freeways, in particular Interstate 5 and State Highway 160.

2. Public Services

The SEIR should consider the appropriate level of public services necessary to address large crowds of people arriving at, and leaving, the Stadium during events.

3. Parking / Urban Design

The SEIR should analyze the design and scale of any proposed parking facilities, including appropriate circulation for vehicles moving to and from the entry and exit points of the parking facilities.

4. Light and Glare

The SEIR should consider impacts related to stadium signage and lighting.

5. Noise

The Stadium may create situations when excessive noise emanates from the site, especially during games and other events that were not studied under the 2007 RSP EIR. There should be appropriate analysis to assure that noise does not negatively impact businesses and residents in the area.

6. Other Comments: The Secondary Levee

The Association believes that removal of the secondary levee that forms the northern boundary between the RSP area and the River District will create greater connectivity within the area, thus allowing for more efficient movement of pedestrians and vehicles. The Association supports removal of the secondary levee.

The Association appreciates the opportunity to submit these comments on the SEIR. I would be happy to meet with City staff to discuss any of these comments. Please do not hesitate to contact me with any questions or concerns.

Very truly yours,

Patty Kleinknecht

Patty Kleinknecht
Executive Director, The River District

Appendix C
Air Quality

ESA

Appendix C.1
Air Quality Calculations

ESA

APPENDIX C.1

Air Quality Calculations

Criteria Pollutant Emissions. CalEEMod (version 2013.2.2) was used to calculate construction and operational criteria pollutant emissions. In addition, the CALINE-4 model was used to estimate carbon monoxide concentrations at the most congested intersections. The following sub-sections are included in this Appendix below:

1. CalEEMod Model Construction and Operation Results – Summer, Annual– Land Uses/Energy, Transportation Adjusted Trip Rates and Lengths to Match Traffic Study
2. CALINE-4 Outputs
3. AEDT Output
4. Generator and Boiler Emissions Calculations

1. CalEEMod Output

KPMC - Construction & Operations

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Permanente, 2015. Kaiser Dublin Construction Assumptions

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment -

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment -

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Trips and VMT -

Grading -

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and VMT were provided by F&P

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	55.00	48.00
tblConstructionPhase	NumDays	55.00	50.00
tblConstructionPhase	NumDays	740.00	760.00
tblConstructionPhase	NumDays	740.00	759.00
tblConstructionPhase	NumDays	75.00	74.00
tblConstructionPhase	NumDays	55.00	50.00
tblConstructionPhase	NumDays	55.00	48.00
tblConstructionPhase	NumDays	30.00	3.00
tblConstructionPhase	NumDays	30.00	23.00

tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	7/18/2018	8/17/2018
tblConstructionPhase	PhaseEndDate	5/14/2032	5/15/2032
tblConstructionPhase	PhaseEndDate	1/5/2022	2/2/2032
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	8/18/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	4/5/2018	5/7/2018
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblConstructionPhase	PhaseStartDate	12/4/2021	1/1/2032
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24NG	58.20	43.65
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	WorkerTripNumber	20.00	15.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CNW_TL	6.50	5.20
tblVehicleTrips	CW_TL	10.00	8.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	73.00	100.00
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	WD_TR	16.50	24.69

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.5870	4.6474	5.9592	0.0103	0.7171	0.1987	0.9158	0.2486	0.1842	0.4329	0.0000	853.5642	853.5642	0.1084	0.0000	855.8403
2019	0.9315	5.7752	11.0369	0.0214	0.9799	0.2153	1.1953	0.2657	0.2015	0.4672	0.0000	1,680.8525	1,680.8525	0.1073	0.0000	1,683.1062
2020	0.8283	5.1603	10.3644	0.0215	0.9838	0.1890	1.1728	0.2668	0.1769	0.4436	0.0000	1,641.5673	1,641.5673	0.1050	0.0000	1,643.7729
2021	14.9988	2.8001	5.8422	0.0125	0.5599	0.1078	0.6677	0.1517	0.1007	0.2524	0.0000	956.3338	956.3338	0.0727	0.0000	957.8607
2032	0.7947	3.6657	10.6209	0.0295	2.8354	0.0949	2.9302	0.8459	0.0911	0.9371	0.0000	2,223.7871	2,223.7871	0.0555	0.0000	2,224.9523
2033	0.9239	4.3084	13.8443	0.0397	3.5701	0.0939	3.6640	0.9268	0.0880	1.0148	0.0000	2,887.9953	2,887.9953	0.0607	0.0000	2,889.2696
2034	0.9149	4.2911	13.7613	0.0397	3.5702	0.0940	3.6642	0.9268	0.0881	1.0149	0.0000	2,886.3715	2,886.3715	0.0602	0.0000	2,887.6363
2035	14.8343	1.3285	4.3821	0.0124	1.0526	0.0295	1.0821	0.2734	0.0278	0.3012	0.0000	905.3257	905.3257	0.0199	0.0000	905.7442
Total	**34.8134**	**31.9767**	**75.8113**	**0.1869**	**14.2690**	**1.0230**	**15.2920**	**3.9057**	**0.9584**	**4.8641**	**0.0000**	**14,035.7974**	**14,035.7974**	**0.5898**	**0.0000**	**14,048.1824**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.5870	3.9770	5.9592	0.0103	0.5233	0.1987	0.7220	0.1663	0.1842	0.3505	0.0000	853.5638	853.5638	0.1084	0.0000	855.8399
2019	0.9315	5.2472	11.0369	0.0214	0.9799	0.2153	1.1953	0.2657	0.2015	0.4672	0.0000	1,680.8521	1,680.8521	0.1073	0.0000	1,683.1058
2020	0.8283	4.6777	10.3644	0.0215	0.9838	0.1890	1.1728	0.2668	0.1769	0.4436	0.0000	1,641.5670	1,641.5670	0.1050	0.0000	1,643.7725
2021	14.9988	2.4931	5.8422	0.0125	0.5599	0.1078	0.6677	0.1517	0.1007	0.2524	0.0000	956.3336	956.3336	0.0727	0.0000	957.8604
2032	0.7947	3.3606	10.6209	0.0295	2.5446	0.0949	2.6395	0.7099	0.0911	0.8011	0.0000	2,223.7864	2,223.7864	0.0555	0.0000	2,224.9516
2033	0.9239	4.1110	13.8443	0.0397	3.5701	0.0939	3.6640	0.9268	0.0880	1.0148	0.0000	2,887.9949	2,887.9949	0.0607	0.0000	2,889.2692
2034	0.9149	4.0936	13.7613	0.0397	3.5702	0.0940	3.6642	0.9268	0.0881	1.0149	0.0000	2,886.3711	2,886.3711	0.0602	0.0000	2,887.6359
2035	14.8343	1.2512	4.3821	0.0124	1.0526	0.0295	1.0821	0.2734	0.0278	0.3012	0.0000	905.3255	905.3255	0.0199	0.0000	905.7440
Total	**34.8134**	**29.2113**	**75.8113**	**0.1869**	**13.7844**	**1.0230**	**14.8075**	**3.6873**	**0.9584**	**4.6457**	**0.0000**	**14,035.7943**	**14,035.7943**	**0.5898**	**0.0000**	**14,048.1793**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**8.65**	**0.00**	**0.00**	**3.40**	**0.00**	**3.17**	**5.59**	**0.00**	**4.49**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.6287	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886
Energy	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	10,224.3242	10,224.3242	0.3977	0.1324	10,273.7307
Mobile	9.8213	18.0386	99.9025	0.4009	28.0482	0.4384	28.4867	7.5153	0.4050	7.9203	0.0000	25,512.9503	25,512.9503	0.7072	0.0000	25,527.8023
Waste						0.0000	0.0000		0.0000	0.0000	2,692.1474	0.0000	2,692.1474	159.1014	0.0000	6,033.2757
Water						0.0000	0.0000		0.0000	0.0000	54.5173	233.0841	287.6014	0.1991	0.1209	329.2696
Total	**19.8027**	**21.2451**	**102.6386**	**0.4202**	**28.0482**	**0.6823**	**28.7305**	**7.5153**	**0.6488**	**8.1641**	**2,746.6647**	**35,970.4427**	**38,717.1073**	**160.4056**	**0.2534**	**42,164.1670**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.6287	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886
Energy	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	10,224.3242	10,224.3242	0.3977	0.1324	10,273.7307
Mobile	9.8213	18.0386	99.9025	0.4009	28.0482	0.4384	28.4867	7.5153	0.4050	7.9203	0.0000	25,512.9503	25,512.9503	0.7072	0.0000	25,527.8023
Waste						0.0000	0.0000		0.0000	0.0000	2,692.1474	0.0000	2,692.1474	159.1014	0.0000	6,033.2757
Water						0.0000	0.0000		0.0000	0.0000	54.5173	233.0841	287.6014	0.1998	0.1211	329.3305
Total	**19.8027**	**21.2451**	**102.6386**	**0.4202**	**28.0482**	**0.6823**	**28.7305**	**7.5153**	**0.6488**	**8.1641**	**2,746.6647**	**35,970.4427**	**38,717.1073**	**160.4063**	**0.2535**	**42,164.2279**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.06**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep - Phase 1	Site Preparation	4/2/2018	4/4/2018	5	3	
2	Grading - Phase 1	Grading	5/7/2018	8/17/2018	5	75	
3	Building Construciton - Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
4	Paving - Phase 1	Paving	7/19/2021	9/24/2021	5	50	
5	ArcCoating - Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
6	Site Prep - Phase 2	Site Preparation	1/1/2032	2/2/2032	5	23	
7	Grading - Phase 2	Grading	2/3/2032	5/15/2032	5	74	
8	Building Construction - Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
9	Paving - Phase 2	Paving	4/13/2035	6/19/2035	5	48	
10	ArcCoating - Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,138,000; Non-Residential Outdoor: 1,046,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep - Phase 1	Rubber Tired Dozers	3	8.00	255	0.40
Site Prep - Phase 1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase 1	Excavators	2	8.00	162	0.38
Grading - Phase 1	Graders	1	8.00	174	0.41
Grading - Phase 1	Rubber Tired Dozers	1	8.00	255	0.40
Grading - Phase 1	Scrapers	2	8.00	361	0.48
Grading - Phase 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Building Construciton - Phase 1	Cranes	1	7.00	226	0.29
Building Construciton - Phase 1	Forklifts	3	8.00	89	0.20
Building Construciton - Phase 1	Generator Sets	1	8.00	84	0.74
Building Construciton - Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construciton - Phase 1	Welders	1	8.00	46	0.45
Paving - Phase 1	Pavers	2	8.00	125	0.42
Paving - Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - Phase 1	Rollers	2	8.00	80	0.38
ArcCoating - Phase 1	Air Compressors	1	6.00	78	0.48
Site Prep - Phase 2	Rubber Tired Dozers	3	8.00	255	0.40
Site Prep - Phase 2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase 2	Excavators	2	8.00	162	0.38
Grading - Phase 2	Graders	1	8.00	174	0.41
Grading - Phase 2	Pavers	2	8.00	125	0.42
Grading - Phase 2	Paving Equipment	2	8.00	130	0.36
Grading - Phase 2	Rollers	2	8.00	80	0.38
Grading - Phase 2	Rubber Tired Dozers	1	8.00	255	0.40
Grading - Phase 2	Scrapers	2	8.00	361	0.48
Grading - Phase 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase 2	Cranes	1	7.00	226	0.29
Building Construction - Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase 2	Welders	1	8.00	46	0.45
Paving - Phase 2	Pavers	2	8.00	125	0.42
Paving - Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - Phase 2	Rollers	2	8.00	80	0.38
ArcCoating - Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep - Phase 1	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 1	8	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construciton - Phase 1	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
ArcCoating - Phase 1	1	151.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep - Phase 2	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep - Phase 2	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 2	14	35.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 2	14	35.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase 2	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase 2	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
ArcCoating - Phase 2	1	151.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Site Prep - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0271	0.0000	0.0271	0.0149	0.0000	0.0149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4400e-003	0.0684	0.0544	6.0000e-005		3.5500e-003	3.5500e-003		3.2600e-003	3.2600e-003	0.0000	5.3612	5.3612	1.6700e-003	0.0000	5.3962
Total	**6.4400e-003**	**0.0684**	**0.0544**	**6.0000e-005**	**0.0271**	**3.5500e-003**	**0.0307**	**0.0149**	**3.2600e-003**	**0.0182**	**0.0000**	**5.3612**	**5.3612**	**1.6700e-003**	**0.0000**	**5.3962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	9.0000e-005	9.1000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1636	0.1636	1.0000e-005	0.0000	0.1637
Total	**7.0000e-005**	**9.0000e-005**	**9.1000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1636**	**0.1636**	**1.0000e-005**	**0.0000**	**0.1637**

3.2 Site Prep - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0122	0.0000	0.0122	6.7000e-003	0.0000	6.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4400e-003	0.0551	0.0544	6.0000e-005		3.5500e-003	3.5500e-003		3.2600e-003	3.2600e-003	0.0000	5.3612	5.3612	1.6700e-003	0.0000	5.3962
Total	**6.4400e-003**	**0.0551**	**0.0544**	**6.0000e-005**	**0.0122**	**3.5500e-003**	**0.0157**	**6.7000e-003**	**3.2600e-003**	**9.9600e-003**	**0.0000**	**5.3612**	**5.3612**	**1.6700e-003**	**0.0000**	**5.3962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	9.0000e-005	9.1000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1636	0.1636	1.0000e-005	0.0000	0.1637
Total	**7.0000e-005**	**9.0000e-005**	**9.1000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1636**	**0.1636**	**1.0000e-005**	**0.0000**	**0.1637**

3.3 Grading - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1984	2.2325	1.5865	2.3100e-003		0.1046	0.1046		0.0962	0.0962	0.0000	211.3560	211.3560	0.0658	0.0000	212.7378
Total	**0.1984**	**2.2325**	**1.5865**	**2.3100e-003**	**0.3253**	**0.1046**	**0.4298**	**0.1349**	**0.0962**	**0.2311**	**0.0000**	**211.3560**	**211.3560**	**0.0658**	**0.0000**	**212.7378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4900e-003	1.8100e-003	0.0189	5.0000e-005	4.1300e-003	3.0000e-005	4.1600e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.4072	3.4072	1.7000e-004	0.0000	3.4107
Total	**1.4900e-003**	**1.8100e-003**	**0.0189**	**5.0000e-005**	**4.1300e-003**	**3.0000e-005**	**4.1600e-003**	**1.1000e-003**	**3.0000e-005**	**1.1300e-003**	**0.0000**	**3.4072**	**3.4072**	**1.7000e-004**	**0.0000**	**3.4107**

3.3 Grading - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1464	0.0000	0.1464	0.0607	0.0000	0.0607	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1984	1.7908	1.5865	2.3100e-003		0.1046	0.1046		0.0962	0.0962	0.0000	211.3558	211.3558	0.0658	0.0000	212.7376
Total	**0.1984**	**1.7908**	**1.5865**	**2.3100e-003**	**0.1464**	**0.1046**	**0.2509**	**0.0607**	**0.0962**	**0.1569**	**0.0000**	**211.3558**	**211.3558**	**0.0658**	**0.0000**	**212.7376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4900e-003	1.8100e-003	0.0189	5.0000e-005	4.1300e-003	3.0000e-005	4.1600e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.4072	3.4072	1.7000e-004	0.0000	3.4107
Total	**1.4900e-003**	**1.8100e-003**	**0.0189**	**5.0000e-005**	**4.1300e-003**	**3.0000e-005**	**4.1600e-003**	**1.1000e-003**	**3.0000e-005**	**1.1300e-003**	**0.0000**	**3.4072**	**3.4072**	**1.7000e-004**	**0.0000**	**3.4107**

3.4 Building Construciton - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	1.1165	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6495	113.6495	0.0278	0.0000	114.2335
Total	**0.1281**	**1.1165**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6495**	**113.6495**	**0.0278**	**0.0000**	**114.2335**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1563	1.1114	2.2375	3.4200e-003	0.0939	0.0169	0.1108	0.0268	0.0155	0.0424	0.0000	299.8201	299.8201	2.2600e-003	0.0000	299.8676
Worker	0.0963	0.1166	1.2195	3.1900e-003	0.2665	1.9200e-003	0.2684	0.0709	1.7800e-003	0.0727	0.0000	219.8067	219.8067	0.0107	0.0000	220.0308
Total	**0.2526**	**1.2281**	**3.4570**	**6.6100e-003**	**0.3604**	**0.0188**	**0.3792**	**0.0977**	**0.0173**	**0.1150**	**0.0000**	**519.6268**	**519.6268**	**0.0129**	**0.0000**	**519.8984**

3.4 Building Construciton - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	0.9012	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6493	113.6493	0.0278	0.0000	114.2334
Total	**0.1281**	**0.9012**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6493**	**113.6493**	**0.0278**	**0.0000**	**114.2334**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1563	1.1114	2.2375	3.4200e-003	0.0939	0.0169	0.1108	0.0268	0.0155	0.0424	0.0000	299.8201	299.8201	2.2600e-003	0.0000	299.8676
Worker	0.0963	0.1166	1.2195	3.1900e-003	0.2665	1.9200e-003	0.2684	0.0709	1.7800e-003	0.0727	0.0000	219.8067	219.8067	0.0107	0.0000	220.0308
Total	**0.2526**	**1.2281**	**3.4570**	**6.6100e-003**	**0.3604**	**0.0188**	**0.3792**	**0.0977**	**0.0173**	**0.1150**	**0.0000**	**519.6268**	**519.6268**	**0.0129**	**0.0000**	**519.8984**

3.4 Building Construciton - Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3845	2.7493	5.7494	9.2800e-003	0.2554	0.0425	0.2978	0.0730	0.0391	0.1121	0.0000	801.9282	801.9282	5.9900e-003	0.0000	802.0540
Worker	0.2402	0.2899	3.0533	8.6100e-003	0.7246	5.1600e-003	0.7297	0.1927	4.7800e-003	0.1975	0.0000	573.3941	573.3941	0.0270	0.0000	573.9609
Total	**0.6247**	**3.0393**	**8.8027**	**0.0179**	**0.9799**	**0.0476**	**1.0276**	**0.2657**	**0.0438**	**0.3096**	**0.0000**	**1,375.3223**	**1,375.3223**	**0.0330**	**0.0000**	**1,376.0149**

3.4 Building Construciton - Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.2080	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.2080**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3845	2.7493	5.7494	9.2800e-003	0.2554	0.0425	0.2978	0.0730	0.0391	0.1121	0.0000	801.9282	801.9282	5.9900e-003	0.0000	802.0540
Worker	0.2402	0.2899	3.0533	8.6100e-003	0.7246	5.1600e-003	0.7297	0.1927	4.7800e-003	0.1975	0.0000	573.3941	573.3941	0.0270	0.0000	573.9609
Total	**0.6247**	**3.0393**	**8.8027**	**0.0179**	**0.9799**	**0.0476**	**1.0276**	**0.2657**	**0.0438**	**0.3096**	**0.0000**	**1,375.3223**	**1,375.3223**	**0.0330**	**0.0000**	**1,376.0149**

3.4 Building Construciton - Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3265	2.3908	5.3140	9.3000e-003	0.2564	0.0380	0.2944	0.0733	0.0350	0.1083	0.0000	786.6115	786.6115	5.8000e-003	0.0000	786.7333
Worker	0.2252	0.2695	2.8485	8.6500e-003	0.7274	5.1800e-003	0.7325	0.1935	4.8000e-003	0.1983	0.0000	552.8045	552.8045	0.0256	0.0000	553.3423
Total	**0.5518**	**2.6603**	**8.1625**	**0.0180**	**0.9838**	**0.0432**	**1.0270**	**0.2668**	**0.0398**	**0.3066**	**0.0000**	**1,339.4160**	**1,339.4160**	**0.0314**	**0.0000**	**1,340.0756**

3.4 Building Construciton - Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0174	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0174**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3265	2.3908	5.3140	9.3000e-003	0.2564	0.0380	0.2944	0.0733	0.0350	0.1083	0.0000	786.6115	786.6115	5.8000e-003	0.0000	786.7333
Worker	0.2252	0.2695	2.8485	8.6500e-003	0.7274	5.1800e-003	0.7325	0.1935	4.8000e-003	0.1983	0.0000	552.8045	552.8045	0.0256	0.0000	553.3423
Total	**0.5518**	**2.6603**	**8.1625**	**0.0180**	**0.9838**	**0.0432**	**1.0270**	**0.2668**	**0.0398**	**0.3066**	**0.0000**	**1,339.4160**	**1,339.4160**	**0.0314**	**0.0000**	**1,340.0756**

3.4 Building Construciton - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	1.2225	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6275	162.6275	0.0392	0.0000	163.4503
Total	**0.1335**	**1.2225**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6275**	**162.6275**	**0.0392**	**0.0000**	**163.4503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1611	1.0769	2.7229	5.0000e-003	0.1380	0.0184	0.1565	0.0395	0.0170	0.0564	0.0000	423.0922	423.0922	3.1000e-003	0.0000	423.1573
Worker	0.1144	0.1355	1.4372	4.6500e-003	0.3914	2.8000e-003	0.3942	0.1041	2.6000e-003	0.1067	0.0000	292.4648	292.4648	0.0131	0.0000	292.7403
Total	**0.2755**	**1.2124**	**4.1601**	**9.6500e-003**	**0.5295**	**0.0212**	**0.5507**	**0.1436**	**0.0196**	**0.1631**	**0.0000**	**715.5570**	**715.5570**	**0.0162**	**0.0000**	**715.8977**

3.4 Building Construciton - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	0.9864	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6273	162.6273	0.0392	0.0000	163.4501
Total	**0.1335**	**0.9864**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6273**	**162.6273**	**0.0392**	**0.0000**	**163.4501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1611	1.0769	2.7229	5.0000e-003	0.1380	0.0184	0.1565	0.0395	0.0170	0.0564	0.0000	423.0922	423.0922	3.1000e-003	0.0000	423.1573
Worker	0.1144	0.1355	1.4372	4.6500e-003	0.3914	2.8000e-003	0.3942	0.1041	2.6000e-003	0.1067	0.0000	292.4648	292.4648	0.0131	0.0000	292.7403
Total	**0.2755**	**1.2124**	**4.1601**	**9.6500e-003**	**0.5295**	**0.0212**	**0.5507**	**0.1436**	**0.0196**	**0.1631**	**0.0000**	**715.5570**	**715.5570**	**0.0162**	**0.0000**	**715.8977**

3.5 Paving - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.3165	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3265
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.3165**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	9.5000e-004	0.0101	3.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.0578	2.0578	9.0000e-005	0.0000	2.0597
Total	**8.0000e-004**	**9.5000e-004**	**0.0101**	**3.0000e-005**	**2.7500e-003**	**2.0000e-005**	**2.7700e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.0578**	**2.0578**	**9.0000e-005**	**0.0000**	**2.0597**

3.5 Paving - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.2532	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3264
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.2532**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3264**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	9.5000e-004	0.0101	3.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.0578	2.0578	9.0000e-005	0.0000	2.0597
Total	**8.0000e-004**	**9.5000e-004**	**0.0101**	**3.0000e-005**	**2.7500e-003**	**2.0000e-005**	**2.7700e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.0578**	**2.0578**	**9.0000e-005**	**0.0000**	**2.0597**

3.6 ArcCoating - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0382	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**14.5501**	**0.0382**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-003	9.5900e-003	0.1018	3.3000e-004	0.0277	2.0000e-004	0.0279	7.3700e-003	1.8000e-004	7.5600e-003	0.0000	20.7148	20.7148	9.3000e-004	0.0000	20.7343
Total	**8.1000e-003**	**9.5900e-003**	**0.1018**	**3.3000e-004**	**0.0277**	**2.0000e-004**	**0.0279**	**7.3700e-003**	**1.8000e-004**	**7.5600e-003**	**0.0000**	**20.7148**	**20.7148**	**9.3000e-004**	**0.0000**	**20.7343**

3.6 ArcCoating - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0305	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**14.5501**	**0.0305**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-003	9.5900e-003	0.1018	3.3000e-004	0.0277	2.0000e-004	0.0279	7.3700e-003	1.8000e-004	7.5600e-003	0.0000	20.7148	20.7148	9.3000e-004	0.0000	20.7343
Total	**8.1000e-003**	**9.5900e-003**	**0.1018**	**3.3000e-004**	**0.0277**	**2.0000e-004**	**0.0279**	**7.3700e-003**	**1.8000e-004**	**7.5600e-003**	**0.0000**	**20.7148**	**20.7148**	**9.3000e-004**	**0.0000**	**20.7343**

3.7 Site Prep - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.1502	0.1948	4.9000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	47.0092	47.0092	2.2700e-003	0.0000	47.0568
Total	**0.0279**	**0.1502**	**0.1948**	**4.9000e-004**	**0.2078**	**4.8500e-003**	**0.2126**	**0.1142**	**4.8500e-003**	**0.1191**	**0.0000**	**47.0092**	**47.0092**	**2.2700e-003**	**0.0000**	**47.0568**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	6.8000e-004	7.4200e-003	4.0000e-005	5.6700e-003	2.0000e-005	5.6900e-003	1.4500e-003	2.0000e-005	1.4800e-003	0.0000	2.0608	2.0608	8.0000e-005	0.0000	2.0624
Total	**5.7000e-004**	**6.8000e-004**	**7.4200e-003**	**4.0000e-005**	**5.6700e-003**	**2.0000e-005**	**5.6900e-003**	**1.4500e-003**	**2.0000e-005**	**1.4800e-003**	**0.0000**	**2.0608**	**2.0608**	**8.0000e-005**	**0.0000**	**2.0624**

3.7 Site Prep - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0935	0.0000	0.0935	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.1213	0.1948	4.9000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	47.0091	47.0091	2.2700e-003	0.0000	47.0567
Total	**0.0279**	**0.1213**	**0.1948**	**4.9000e-004**	**0.0935**	**4.8500e-003**	**0.0983**	**0.0514**	**4.8500e-003**	**0.0562**	**0.0000**	**47.0091**	**47.0091**	**2.2700e-003**	**0.0000**	**47.0567**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	6.8000e-004	7.4200e-003	4.0000e-005	5.6700e-003	2.0000e-005	5.6900e-003	1.4500e-003	2.0000e-005	1.4800e-003	0.0000	2.0608	2.0608	8.0000e-005	0.0000	2.0624
Total	**5.7000e-004**	**6.8000e-004**	**7.4200e-003**	**4.0000e-005**	**5.6700e-003**	**2.0000e-005**	**5.6900e-003**	**1.4500e-003**	**2.0000e-005**	**1.4800e-003**	**0.0000**	**2.0608**	**2.0608**	**8.0000e-005**	**0.0000**	**2.0624**

3.8 Grading - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3209	0.0000	0.3209	0.1331	0.0000	0.1331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1710	0.7639	1.5337	3.5200e-003		0.0303	0.0303		0.0303	0.0303	0.0000	327.7531	327.7531	0.0139	0.0000	328.0440
Total	**0.1710**	**0.7639**	**1.5337**	**3.5200e-003**	**0.3209**	**0.0303**	**0.3512**	**0.1331**	**0.0303**	**0.1634**	**0.0000**	**327.7531**	**327.7531**	**0.0139**	**0.0000**	**328.0440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	4.2400e-003	0.0464	2.3000e-004	0.0355	1.5000e-004	0.0356	9.0900e-003	1.4000e-004	9.2300e-003	0.0000	12.8924	12.8924	4.8000e-004	0.0000	12.9024
Total	**3.5900e-003**	**4.2400e-003**	**0.0464**	**2.3000e-004**	**0.0355**	**1.5000e-004**	**0.0356**	**9.0900e-003**	**1.4000e-004**	**9.2300e-003**	**0.0000**	**12.8924**	**12.8924**	**4.8000e-004**	**0.0000**	**12.9024**

3.8 Grading - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1444	0.0000	0.1444	0.0599	0.0000	0.0599	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1710	0.6129	1.5337	3.5200e-003		0.0303	0.0303		0.0303	0.0303	0.0000	327.7527	327.7527	0.0139	0.0000	328.0436
Total	**0.1710**	**0.6129**	**1.5337**	**3.5200e-003**	**0.1444**	**0.0303**	**0.1747**	**0.0599**	**0.0303**	**0.0902**	**0.0000**	**327.7527**	**327.7527**	**0.0139**	**0.0000**	**328.0436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	4.2400e-003	0.0464	2.3000e-004	0.0355	1.5000e-004	0.0356	9.0900e-003	1.4000e-004	9.2300e-003	0.0000	12.8924	12.8924	4.8000e-004	0.0000	12.9024
Total	**3.5900e-003**	**4.2400e-003**	**0.0464**	**2.3000e-004**	**0.0355**	**1.5000e-004**	**0.0356**	**9.0900e-003**	**1.4000e-004**	**9.2300e-003**	**0.0000**	**12.8924**	**12.8924**	**4.8000e-004**	**0.0000**	**12.9024**

3.9 Building Construction - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.6532	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9086	215.9086	8.6700e-003	0.0000	216.0906
Total	**0.1076**	**0.6532**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9086**	**215.9086**	**8.6700e-003**	**0.0000**	**216.0906**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3112	1.8895	5.2734	0.0118	0.5576	0.0403	0.5979	0.1501	0.0371	0.1872	0.0000	997.2387	997.2387	7.1300e-003	0.0000	997.3884
Worker	0.1728	0.2040	2.2343	0.0109	1.7080	7.0500e-003	1.7150	0.4380	6.5500e-003	0.4446	0.0000	620.9245	620.9245	0.0230	0.0000	621.4078
Total	**0.4840**	**2.0935**	**7.5077**	**0.0226**	**2.2656**	**0.0474**	**2.3129**	**0.5881**	**0.0437**	**0.6318**	**0.0000**	**1,618.1632**	**1,618.1632**	**0.0302**	**0.0000**	**1,618.7962**

3.9 Building Construction - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.5279	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9083	215.9083	8.6700e-003	0.0000	216.0903
Total	**0.1076**	**0.5279**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9083**	**215.9083**	**8.6700e-003**	**0.0000**	**216.0903**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3112	1.8895	5.2734	0.0118	0.5576	0.0403	0.5979	0.1501	0.0371	0.1872	0.0000	997.2387	997.2387	7.1300e-003	0.0000	997.3884
Worker	0.1728	0.2040	2.2343	0.0109	1.7080	7.0500e-003	1.7150	0.4380	6.5500e-003	0.4446	0.0000	620.9245	620.9245	0.0230	0.0000	621.4078
Total	**0.4840**	**2.0935**	**7.5077**	**0.0226**	**2.2656**	**0.0474**	**2.3129**	**0.5881**	**0.0437**	**0.6318**	**0.0000**	**1,618.1632**	**1,618.1632**	**0.0302**	**0.0000**	**1,618.7962**

3.9 Building Construction - Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4896	2.9646	8.2890	0.0185	0.8787	0.0636	0.9423	0.2365	0.0585	0.2951	0.0000	1,572.3280	1,572.3280	0.0112	0.0000	1,572.5642
Worker	0.2648	0.3145	3.4582	0.0172	2.6914	0.0111	2.7025	0.6902	0.0103	0.7006	0.0000	975.4477	975.4477	0.0358	0.0000	976.1991
Total	**0.7543**	**3.2791**	**11.7472**	**0.0357**	**3.5701**	**0.0747**	**3.6448**	**0.9268**	**0.0689**	**0.9956**	**0.0000**	**2,547.7757**	**2,547.7757**	**0.0470**	**0.0000**	**2,548.7632**

3.9 Building Construction - Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8319	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8319**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4896	2.9646	8.2890	0.0185	0.8787	0.0636	0.9423	0.2365	0.0585	0.2951	0.0000	1,572.3280	1,572.3280	0.0112	0.0000	1,572.5642
Worker	0.2648	0.3145	3.4582	0.0172	2.6914	0.0111	2.7025	0.6902	0.0103	0.7006	0.0000	975.4477	975.4477	0.0358	0.0000	976.1991
Total	**0.7543**	**3.2791**	**11.7472**	**0.0357**	**3.5701**	**0.0747**	**3.6448**	**0.9268**	**0.0689**	**0.9956**	**0.0000**	**2,547.7757**	**2,547.7757**	**0.0470**	**0.0000**	**2,548.7632**

3.9 Building Construction - Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4888	2.9532	8.2664	0.0185	0.8788	0.0637	0.9425	0.2366	0.0586	0.2951	0.0000	1,573.2261	1,573.2261	0.0113	0.0000	1,573.4624
Worker	0.2565	0.3085	3.3978	0.0172	2.6914	0.0111	2.7025	0.6902	0.0103	0.7006	0.0000	972.9258	972.9258	0.0353	0.0000	973.6675
Total	**0.7453**	**3.2618**	**11.6642**	**0.0357**	**3.5702**	**0.0748**	**3.6450**	**0.9268**	**0.0689**	**0.9957**	**0.0000**	**2,546.1519**	**2,546.1519**	**0.0466**	**0.0000**	**2,547.1299**

3.9 Building Construction - Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8319	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8319**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4888	2.9532	8.2664	0.0185	0.8788	0.0637	0.9425	0.2366	0.0586	0.2951	0.0000	1,573.2261	1,573.2261	0.0113	0.0000	1,573.4624
Worker	0.2565	0.3085	3.3978	0.0172	2.6914	0.0111	2.7025	0.6902	0.0103	0.7006	0.0000	972.9258	972.9258	0.0353	0.0000	973.6675
Total	**0.7453**	**3.2618**	**11.6642**	**0.0357**	**3.5702**	**0.0748**	**3.6450**	**0.9268**	**0.0689**	**0.9957**	**0.0000**	**2,546.1519**	**2,546.1519**	**0.0466**	**0.0000**	**2,547.1299**

3.9 Building Construction - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2646	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8317	96.8317	3.6100e-003	0.0000	96.9075
Total	**0.0449**	**0.2646**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8317**	**96.8317**	**3.6100e-003**	**0.0000**	**96.9075**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1388	0.8376	2.3456	5.2800e-003	0.2502	0.0181	0.2683	0.0674	0.0167	0.0840	0.0000	447.9862	447.9862	3.2100e-003	0.0000	448.0535
Worker	0.0710	0.0865	0.9523	4.8800e-003	0.7660	3.1700e-003	0.7692	0.1965	2.9400e-003	0.1994	0.0000	276.3163	276.3163	9.9400e-003	0.0000	276.5250
Total	**0.2097**	**0.9241**	**3.2979**	**0.0102**	**1.0162**	**0.0213**	**1.0375**	**0.2638**	**0.0196**	**0.2834**	**0.0000**	**724.3024**	**724.3024**	**0.0132**	**0.0000**	**724.5785**

3.9 Building Construction - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2139	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8316	96.8316	3.6100e-003	0.0000	96.9074
Total	**0.0449**	**0.2139**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8316**	**96.8316**	**3.6100e-003**	**0.0000**	**96.9074**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1388	0.8376	2.3456	5.2800e-003	0.2502	0.0181	0.2683	0.0674	0.0167	0.0840	0.0000	447.9862	447.9862	3.2100e-003	0.0000	448.0535
Worker	0.0710	0.0865	0.9523	4.8800e-003	0.7660	3.1700e-003	0.7692	0.1965	2.9400e-003	0.1994	0.0000	276.3163	276.3163	9.9400e-003	0.0000	276.5250
Total	**0.2097**	**0.9241**	**3.2979**	**0.0102**	**1.0162**	**0.0213**	**1.0375**	**0.2638**	**0.0196**	**0.2834**	**0.0000**	**724.3024**	**724.3024**	**0.0132**	**0.0000**	**724.5785**

3.10 Paving - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.1149	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6538
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.1149**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.10 Paving - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.0920	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6537
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.0920**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.11 ArcCoating - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0182	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**14.5475**	**0.0182**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-003	5.6000e-003	0.0617	3.2000e-004	0.0266	2.1000e-004	0.0268	7.0800e-003	1.9000e-004	7.2700e-003	0.0000	17.8995	17.8995	6.4000e-004	0.0000	17.9130
Total	**4.6000e-003**	**5.6000e-003**	**0.0617**	**3.2000e-004**	**0.0266**	**2.1000e-004**	**0.0268**	**7.0800e-003**	**1.9000e-004**	**7.2700e-003**	**0.0000**	**17.8995**	**17.8995**	**6.4000e-004**	**0.0000**	**17.9130**

3.11 ArcCoating - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0146	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**14.5475**	**0.0146**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-003	5.6000e-003	0.0617	3.2000e-004	0.0266	2.1000e-004	0.0268	7.0800e-003	1.9000e-004	7.2700e-003	0.0000	17.8995	17.8995	6.4000e-004	0.0000	17.9130
Total	**4.6000e-003**	**5.6000e-003**	**0.0617**	**3.2000e-004**	**0.0266**	**2.1000e-004**	**0.0268**	**7.0800e-003**	**1.9000e-004**	**7.2700e-003**	**0.0000**	**17.8995**	**17.8995**	**6.4000e-004**	**0.0000**	**17.9130**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.8213	18.0386	99.9025	0.4009	28.0482	0.4384	28.4867	7.5153	0.4050	7.9203	0.0000	25,512.9503	25,512.9503	0.7072	0.0000	25,527.8023
Unmitigated	9.8213	18.0386	99.9025	0.4009	28.0482	0.4384	28.4867	7.5153	0.4050	7.9203	0.0000	25,512.9503	25,512.9503	0.7072	0.0000	25,527.8023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	30,319.32	30,319.32	30319.32	75,311,250	75,311,250
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	30,319.32	30,319.32	30,319.32	75,311,250	75,311,250

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hospital	8.00	4.00	5.20	64.90	16.10	19.00	100	0	0
Unenclosed Parking Structure	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,734.1561	6,734.1561	0.3308	0.0685	6,762.3220
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,734.1561	6,734.1561	0.3308	0.0685	6,762.3220
NaturalGas Mitigated	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
NaturalGas Unmitigated	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3527**	**3.2060**	**2.6931**	**0.0192**		**0.2437**	**0.2437**		**0.2437**	**0.2437**	**0.0000**	**3,490.1681**	**3,490.1681**	**0.0669**	**0.0640**	**3,511.4087**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3527**	**3.2060**	**2.6931**	**0.0192**		**0.2437**	**0.2437**		**0.2437**	**0.2437**	**0.0000**	**3,490.1681**	**3,490.1681**	**0.0669**	**0.0640**	**3,511.4087**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**6,734.1561**	**0.3308**	**0.0684**	**6,762.3220**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**6,734.1561**	**0.3308**	**0.0684**	**6,762.3220**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.6287	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886
Unmitigated	9.6287	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.1703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9300e-003	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886
Total	**9.6287**	**3.9000e-004**	**0.0430**	**0.0000**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0841**	**0.0841**	**2.2000e-004**	**0.0000**	**0.0886**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.1703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9300e-003	3.9000e-004	0.0430	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0841	0.0841	2.2000e-004	0.0000	0.0886
Total	**9.6287**	**3.9000e-004**	**0.0430**	**0.0000**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0841**	**0.0841**	**2.2000e-004**	**0.0000**	**0.0886**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	287.6014	0.1998	0.1211	329.3305
Unmitigated	287.6014	0.1991	0.1209	329.2696

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	154.09 / 29.3505	287.6014	0.1991	0.1209	329.2696
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**287.6014**	**0.1991**	**0.1209**	**329.2696**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	154.09 / 29.3505	287.6014	0.1998	0.1211	329.3305
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**287.6014**	**0.1998**	**0.1211**	**329.3305**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2,692.1474	159.1014	0.0000	6,033.2757
Unmitigated	2,692.1474	159.1014	0.0000	6,033.2757

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**2,692.1474**	**159.1014**	**0.0000**	**6,033.2757**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**2,692.1474**	**159.1014**	**0.0000**	**6,033.2757**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

KPMC - Construction & Operations

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Permanente, 2015. Kaiser Dublin Construction Assumptions

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment -

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment -

Off-road Equipment - Used CalEEMod construction equipment defaults

Off-road Equipment - Used CalEEMod construction equipment defaults

Trips and VMT -

Grading -

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and VMT were provided by F&P

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	55.00	48.00
tblConstructionPhase	NumDays	55.00	50.00
tblConstructionPhase	NumDays	740.00	760.00
tblConstructionPhase	NumDays	740.00	759.00
tblConstructionPhase	NumDays	75.00	74.00
tblConstructionPhase	NumDays	55.00	50.00
tblConstructionPhase	NumDays	55.00	48.00
tblConstructionPhase	NumDays	30.00	3.00
tblConstructionPhase	NumDays	30.00	23.00

tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	7/18/2018	8/17/2018
tblConstructionPhase	PhaseEndDate	5/14/2032	5/15/2032
tblConstructionPhase	PhaseEndDate	1/5/2022	2/2/2032
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	8/18/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	4/5/2018	5/7/2018
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblConstructionPhase	PhaseStartDate	12/4/2021	1/1/2032
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24NG	58.20	43.65
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	WorkerTripNumber	20.00	15.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CNW_TL	6.50	5.20
tblVehicleTrips	CW_TL	10.00	8.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	73.00	100.00
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	WD_TR	16.50	24.69

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	8.0622	59.5773	84.7620	0.1716	18.2032	2.7888	20.5695	9.9670	2.5657	12.1441	0.0000	15,107.0162	15,107.0162	1.9390	0.0000	15,147.7350
2019	7.2763	42.9965	79.5208	0.1712	7.7662	1.6481	9.4143	2.0993	1.5424	3.6417	0.0000	14,739.6655	14,739.6655	0.9058	0.0000	14,758.6866
2020	6.4867	38.3045	73.5574	0.1710	7.7666	1.4411	9.2077	2.0995	1.3487	3.4481	0.0000	14,334.1626	14,334.1626	0.8830	0.0000	14,352.7054
2021	582.3963	33.6169	69.8834	0.1709	7.7672	1.2547	9.0218	2.0997	1.1739	3.2736	0.0000	14,243.9004	14,243.9004	0.8655	0.0000	14,262.0750
2032	7.3834	32.0385	98.1192	0.3198	28.4895	0.8227	29.2095	10.0617	0.8224	10.4850	0.0000	25,448.5131	25,448.5131	0.5170	0.0000	25,459.3699
2033	7.3031	31.8986	97.4207	0.3199	28.4905	0.7206	29.2110	7.3813	0.6754	8.0568	0.0000	25,428.7434	25,428.7434	0.5130	0.0000	25,439.5153
2034	7.2178	31.7758	96.7282	0.3200	28.4914	0.7209	29.2123	7.3817	0.6757	8.0574	0.0000	25,413.0242	25,413.0242	0.5091	0.0000	25,423.7152
2035	606.3708	30.9033	96.0579	0.3200	28.4922	0.6634	29.1556	7.3820	0.6182	8.0002	0.0000	25,400.2805	25,400.2805	0.4975	0.0000	25,410.7279
Total	**1,232.4966**	**301.1114**	**696.0496**	**1.9644**	**155.4667**	**10.0602**	**165.0018**	**48.4722**	**9.4224**	**57.1068**	**0.0000**	**160,115.3061**	**160,115.3061**	**6.6297**	**0.0000**	**160,254.5305**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	8.0622	47.7968	84.7620	0.1716	8.2667	2.7888	10.6331	4.5051	2.5657	6.6822	0.0000	15,107.0162	15,107.0162	1.9390	0.0000	15,147.7350
2019	7.2763	38.9508	79.5208	0.1712	7.7662	1.6481	9.4143	2.0993	1.5424	3.6417	0.0000	14,739.6655	14,739.6655	0.9058	0.0000	14,758.6866
2020	6.4867	34.6203	73.5574	0.1710	7.7666	1.4411	9.2077	2.0995	1.3487	3.4481	0.0000	14,334.1626	14,334.1626	0.8830	0.0000	14,352.7054
2021	582.3963	30.2683	69.8834	0.1709	7.7672	1.2547	9.0218	2.0997	1.1739	3.2736	0.0000	14,243.9004	14,243.9004	0.8655	0.0000	14,262.0750
2032	7.3834	30.5196	98.1192	0.3198	28.4895	0.8227	29.2095	7.3810	0.8224	8.0559	0.0000	25,448.5131	25,448.5131	0.5170	0.0000	25,459.3699
2033	7.3031	30.3798	97.4207	0.3199	28.4905	0.7206	29.2110	7.3813	0.6754	8.0568	0.0000	25,428.7434	25,428.7434	0.5130	0.0000	25,439.5153
2034	7.2178	30.2570	96.7282	0.3200	28.4914	0.7209	29.2123	7.3817	0.6757	8.0574	0.0000	25,413.0242	25,413.0242	0.5091	0.0000	25,423.7152
2035	606.3708	29.5338	96.0579	0.3200	28.4922	0.6634	29.1556	7.3820	0.6182	8.0002	0.0000	25,400.2805	25,400.2805	0.4975	0.0000	25,410.7279
Total	**1,232.4966**	**272.3264**	**696.0496**	**1.9644**	**145.5303**	**10.0602**	**155.0654**	**40.3295**	**9.4224**	**49.2158**	**0.0000**	**160,115.3060**	**160,115.3060**	**6.6297**	**0.0000**	**160,254.5304**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**9.56**	**0.00**	**0.00**	**6.39**	**0.00**	**6.02**	**16.80**	**0.00**	**13.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	52.7699	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816
Energy	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Mobile	61.2876	92.4103	581.1557	2.3899	159.5444	2.4081	161.9525	42.6267	2.2245	44.8511		166,498.7604	166,498.7604	4.2856		166,588.7585
Total	**115.9899**	**109.9808**	**596.2562**	**2.4953**	**159.5444**	**3.7444**	**163.2889**	**42.6267**	**3.5608**	**46.1875**		**187,580.3335**	**187,580.3335**	**4.6916**	**0.3865**	**187,798.6661**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	52.7699	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816
Energy	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Mobile	61.2876	92.4103	581.1557	2.3899	159.5444	2.4081	161.9525	42.6267	2.2245	44.8511		166,498.7604	166,498.7604	4.2856		166,588.7585
Total	**115.9899**	**109.9808**	**596.2562**	**2.4953**	**159.5444**	**3.7444**	**163.2889**	**42.6267**	**3.5608**	**46.1875**		**187,580.3335**	**187,580.3335**	**4.6916**	**0.3865**	**187,798.6661**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep - Phase 1	Site Preparation	4/2/2018	4/4/2018	5	3	
2	Grading - Phase 1	Grading	5/7/2018	8/17/2018	5	75	
3	Building Construciton - Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
4	Paving - Phase 1	Paving	7/19/2021	9/24/2021	5	50	
5	ArcCoating - Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
6	Site Prep - Phase 2	Site Preparation	1/1/2032	2/2/2032	5	23	
7	Grading - Phase 2	Grading	2/3/2032	5/15/2032	5	74	
8	Building Construction - Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
9	Paving - Phase 2	Paving	4/13/2035	6/19/2035	5	48	
10	ArcCoating - Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,138,000; Non-Residential Outdoor: 1,046,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep - Phase 1	Rubber Tired Dozers	3	8.00	255	0.40
Site Prep - Phase 1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase 1	Excavators	2	8.00	162	0.38
Grading - Phase 1	Graders	1	8.00	174	0.41
Grading - Phase 1	Rubber Tired Dozers	1	8.00	255	0.40
Grading - Phase 1	Scrapers	2	8.00	361	0.48
Grading - Phase 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construciton - Phase 1	Cranes	1	7.00	226	0.29
Building Construciton - Phase 1	Forklifts	3	8.00	89	0.20
Building Construciton - Phase 1	Generator Sets	1	8.00	84	0.74
Building Construciton - Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construciton - Phase 1	Welders	1	8.00	46	0.45
Paving - Phase 1	Pavers	2	8.00	125	0.42
Paving - Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - Phase 1	Rollers	2	8.00	80	0.38
ArcCoating - Phase 1	Air Compressors	1	6.00	78	0.48
Site Prep - Phase 2	Rubber Tired Dozers	3	8.00	255	0.40
Site Prep - Phase 2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase 2	Excavators	2	8.00	162	0.38
Grading - Phase 2	Graders	1	8.00	174	0.41
Grading - Phase 2	Pavers	2	8.00	125	0.42
Grading - Phase 2	Paving Equipment	2	8.00	130	0.36
Grading - Phase 2	Rollers	2	8.00	80	0.38
Grading - Phase 2	Rubber Tired Dozers	1	8.00	255	0.40
Grading - Phase 2	Scrapers	2	8.00	361	0.48
Grading - Phase 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase 2	Cranes	1	7.00	226	0.29

Building Construction - Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase 2	Welders	1	8.00	46	0.45
Paving - Phase 2	Pavers	2	8.00	125	0.42
Paving - Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - Phase 2	Rollers	2	8.00	80	0.38
ArcCoating - Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep - Phase 1	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 1	8	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construciton - Phase 1	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
ArcCoating - Phase 1	1	151.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep - Phase 2	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep - Phase 2	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 2	14	35.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase 2	14	35.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase 2	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase 2	9	756.00	343.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
ArcCoating - Phase 2	1	151.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Site Prep - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.2921	45.6088	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762		3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**45.6088**	**36.2346**	**0.0391**	**18.0663**	**2.3654**	**20.4317**	**9.9307**	**2.1762**	**12.1069**		**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0577	0.0523	0.7014	1.7500e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		133.0065	133.0065	5.8400e-003		133.1290
Total	**0.0577**	**0.0523**	**0.7014**	**1.7500e-003**	**0.1369**	**9.5000e-004**	**0.1379**	**0.0363**	**8.8000e-004**	**0.0372**		**133.0065**	**133.0065**	**5.8400e-003**		**133.1290**

3.2 Site Prep - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.2921	36.7395	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762	0.0000	3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**36.7395**	**36.2346**	**0.0391**	**8.1298**	**2.3654**	**10.4952**	**4.4688**	**2.1762**	**6.6450**	**0.0000**	**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0577	0.0523	0.7014	1.7500e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		133.0065	133.0065	5.8400e-003		133.1290
Total	**0.0577**	**0.0523**	**0.7014**	**1.7500e-003**	**0.1369**	**9.5000e-004**	**0.1379**	**0.0363**	**8.8000e-004**	**0.0372**		**133.0065**	**133.0065**	**5.8400e-003**		**133.1290**

3.3 Grading - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.2895	59.5338	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650		6,212.8042	6,212.8042	1.9341		6,253.4209
Total	**5.2895**	**59.5338**	**42.3068**	**0.0617**	**8.6733**	**2.7880**	**11.4614**	**3.5965**	**2.5650**	**6.1615**		**6,212.8042**	**6,212.8042**	**1.9341**		**6,253.4209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0436	0.5845	1.4600e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		110.8387	110.8387	4.8600e-003		110.9409
Total	**0.0481**	**0.0436**	**0.5845**	**1.4600e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**110.8387**	**110.8387**	**4.8600e-003**		**110.9409**

3.3 Grading - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	5.2895	47.7533	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650	0.0000	6,212.8041	6,212.8041	1.9341		6,253.4209
Total	**5.2895**	**47.7533**	**42.3068**	**0.0617**	**3.9030**	**2.7880**	**6.6910**	**1.6184**	**2.5650**	**4.1834**	**0.0000**	**6,212.8041**	**6,212.8041**	**1.9341**		**6,253.4209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0436	0.5845	1.4600e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		110.8387	110.8387	4.8600e-003		110.9409
Total	**0.0481**	**0.0436**	**0.5845**	**1.4600e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**110.8387**	**110.8387**	**4.8600e-003**		**110.9409**

3.4 Building Construciton - Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9702	21.9924	37.7711	0.0713	2.0148	0.3497	2.3645	0.5736	0.3214	0.8950		6,910.8053	6,910.8053	0.0512		6,911.8804
Worker	2.4234	2.1950	29.4583	0.0735	5.7509	0.0400	5.7909	1.5255	0.0370	1.5625		5,586.2719	5,586.2719	0.2451		5,591.4189
Total	**5.3935**	**24.1874**	**67.2294**	**0.1448**	**7.7657**	**0.3897**	**8.1554**	**2.0991**	**0.3585**	**2.4576**		**12,497.0772**	**12,497.0772**	**0.2963**		**12,503.2993**

3.4 Building Construciton - Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.7744	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.7744**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9702	21.9924	37.7711	0.0713	2.0148	0.3497	2.3645	0.5736	0.3214	0.8950		6,910.8053	6,910.8053	0.0512		6,911.8804
Worker	2.4234	2.1950	29.4583	0.0735	5.7509	0.0400	5.7909	1.5255	0.0370	1.5625		5,586.2719	5,586.2719	0.2451		5,591.4189
Total	**5.3935**	**24.1874**	**67.2294**	**0.1448**	**7.7657**	**0.3897**	**8.1554**	**2.0991**	**0.3585**	**2.4576**		**12,497.0772**	**12,497.0772**	**0.2963**		**12,503.2993**

3.4 Building Construciton - Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6965	20.0230	35.1803	0.0712	2.0153	0.3235	2.3389	0.5738	0.2975	0.8713		6,798.8654	6,798.8654	0.0499		6,799.9122
Worker	2.2283	2.0085	27.2201	0.0731	5.7509	0.0395	5.7904	1.5255	0.0366	1.5621		5,360.0384	5,360.0384	0.2280		5,364.8265
Total	**4.9247**	**22.0315**	**62.4005**	**0.1444**	**7.7662**	**0.3631**	**8.1293**	**2.0993**	**0.3341**	**2.4334**		**12,158.9038**	**12,158.9038**	**0.2779**		**12,164.7388**

3.4 Building Construciton - Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.9193	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.9193**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6965	20.0230	35.1803	0.0712	2.0153	0.3235	2.3389	0.5738	0.2975	0.8713		6,798.8654	6,798.8654	0.0499		6,799.9122
Worker	2.2283	2.0085	27.2201	0.0731	5.7509	0.0395	5.7904	1.5255	0.0366	1.5621		5,360.0384	5,360.0384	0.2280		5,364.8265
Total	**4.9247**	**22.0315**	**62.4005**	**0.1444**	**7.7662**	**0.3631**	**8.1293**	**2.0993**	**0.3341**	**2.4334**		**12,158.9038**	**12,158.9038**	**0.2779**		**12,164.7388**

3.4 Building Construciton - Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2939	17.3592	31.3823	0.0711	2.0157	0.2887	2.3044	0.5740	0.2655	0.8395		6,643.6316	6,643.6316	0.0481		6,644.6407
Worker	2.0816	1.8613	25.3667	0.0731	5.7509	0.0396	5.7904	1.5255	0.0367	1.5622		5,148.0511	5,148.0511	0.2155		5,152.5766
Total	**4.3755**	**19.2205**	**56.7490**	**0.1442**	**7.7666**	**0.3282**	**8.0948**	**2.0995**	**0.3022**	**2.4017**		**11,791.6827**	**11,791.6827**	**0.2636**		**11,797.2174**

3.4 Building Construciton - Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.3998	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.3998**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2939	17.3592	31.3823	0.0711	2.0157	0.2887	2.3044	0.5740	0.2655	0.8395		6,643.6316	6,643.6316	0.0481		6,644.6407
Worker	2.0816	1.8613	25.3667	0.0731	5.7509	0.0396	5.7904	1.5255	0.0367	1.5622		5,148.0511	5,148.0511	0.2155		5,152.5766
Total	**4.3755**	**19.2205**	**56.7490**	**0.1442**	**7.7666**	**0.3282**	**8.0948**	**2.0995**	**0.3022**	**2.4017**		**11,791.6827**	**11,791.6827**	**0.2636**		**11,797.2174**

3.4 Building Construciton - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1132	14.5372	29.5047	0.0710	2.0163	0.2600	2.2763	0.5742	0.2392	0.8134		6,639.9421	6,639.9421	0.0477		6,640.9437
Worker	1.9634	1.7394	23.8411	0.0731	5.7509	0.0398	5.7906	1.5255	0.0369	1.5623		5,061.1766	5,061.1766	0.2052		5,065.4851
Total	**4.0766**	**16.2767**	**53.3458**	**0.1441**	**7.7672**	**0.2998**	**8.0669**	**2.0997**	**0.2761**	**2.3758**		**11,701.1187**	**11,701.1187**	**0.2529**		**11,706.4288**

3.4 Building Construciton - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.9916	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.9916**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1132	14.5372	29.5047	0.0710	2.0163	0.2600	2.2763	0.5742	0.2392	0.8134		6,639.9421	6,639.9421	0.0477		6,640.9437
Worker	1.9634	1.7394	23.8411	0.0731	5.7509	0.0398	5.7906	1.5255	0.0369	1.5623		5,061.1766	5,061.1766	0.2052		5,065.4851
Total	**4.0766**	**16.2767**	**53.3458**	**0.1441**	**7.7672**	**0.2998**	**8.0669**	**2.0997**	**0.2761**	**2.3758**		**11,701.1187**	**11,701.1187**	**0.2529**		**11,706.4288**

3.5 Paving - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0390	0.0345	0.4730	1.4500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		100.4202	100.4202	4.0700e-003		100.5057
Total	**0.0390**	**0.0345**	**0.4730**	**1.4500e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**100.4202**	**100.4202**	**4.0700e-003**		**100.5057**

3.5 Paving - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	10.1285	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**10.1285**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0390	0.0345	0.4730	1.4500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		100.4202	100.4202	4.0700e-003		100.5057
Total	**0.0390**	**0.0345**	**0.4730**	**1.4500e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**100.4202**	**100.4202**	**4.0700e-003**		**100.5057**

3.6 ArcCoating - Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	581.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**582.0041**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3922	0.3474	4.7619	0.0146	1.1487	7.9400e-003	1.1566	0.3047	7.3600e-003	0.3121		1,010.8964	1,010.8964	0.0410		1,011.7570
Total	**0.3922**	**0.3474**	**4.7619**	**0.0146**	**1.1487**	**7.9400e-003**	**1.1566**	**0.3047**	**7.3600e-003**	**0.3121**		**1,010.8964**	**1,010.8964**	**0.0410**		**1,011.7570**

3.6 ArcCoating - Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	581.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.2215	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**582.0041**	**1.2215**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3922	0.3474	4.7619	0.0146	1.1487	7.9400e-003	1.1566	0.3047	7.3600e-003	0.3121		1,010.8964	1,010.8964	0.0410		1,011.7570
Total	**0.3922**	**0.3474**	**4.7619**	**0.0146**	**1.1487**	**7.9400e-003**	**1.1566**	**0.3047**	**7.3600e-003**	**0.3121**		**1,010.8964**	**1,010.8964**	**0.0410**		**1,011.7570**

3.7 Site Prep - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.4265	13.0600	16.9420	0.0422		0.4214	0.4214		0.4214	0.4214		4,505.9752	4,505.9752	0.2173		4,510.5381
Total	**2.4265**	**13.0600**	**16.9420**	**0.0422**	**18.0663**	**0.4214**	**18.4876**	**9.9307**	**0.4214**	**10.3520**		**4,505.9752**	**4,505.9752**	**0.2173**		**4,510.5381**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0594	0.0536	0.7700	3.4800e-003	0.5118	2.0400e-003	0.5139	0.1311	1.8900e-003	0.1329		218.8048	218.8048	7.3200e-003		218.9586
Total	**0.0594**	**0.0536**	**0.7700**	**3.4800e-003**	**0.5118**	**2.0400e-003**	**0.5139**	**0.1311**	**1.8900e-003**	**0.1329**		**218.8048**	**218.8048**	**7.3200e-003**		**218.9586**

3.7 Site Prep - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	2.4265	10.5467	16.9420	0.0422		0.4214	0.4214		0.4214	0.4214	0.0000	4,505.9752	4,505.9752	0.2173		4,510.5381
Total	**2.4265**	**10.5467**	**16.9420**	**0.0422**	**8.1298**	**0.4214**	**8.5512**	**4.4688**	**0.4214**	**4.8902**	**0.0000**	**4,505.9752**	**4,505.9752**	**0.2173**		**4,510.5381**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0594	0.0536	0.7700	3.4800e-003	0.5118	2.0400e-003	0.5139	0.1311	1.8900e-003	0.1329		218.8048	218.8048	7.3200e-003		218.9586
Total	**0.0594**	**0.0536**	**0.7700**	**3.4800e-003**	**0.5118**	**2.0400e-003**	**0.5139**	**0.1311**	**1.8900e-003**	**0.1329**		**218.8048**	**218.8048**	**7.3200e-003**		**218.9586**

3.8 Grading - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.6223	20.6448	41.4523	0.0952		0.8187	0.8187		0.8187	0.8187		9,764.4845	9,764.4845	0.4127		9,773.1510
Total	**4.6223**	**20.6448**	**41.4523**	**0.0952**	**8.6733**	**0.8187**	**9.4921**	**3.5965**	**0.8187**	**4.4152**		**9,764.4845**	**9,764.4845**	**0.4127**		**9,773.1510**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.1042	1.4973	6.7700e-003	0.9952	3.9600e-003	0.9992	0.2548	3.6700e-003	0.2585		425.4538	425.4538	0.0142		425.7528
Total	**0.1155**	**0.1042**	**1.4973**	**6.7700e-003**	**0.9952**	**3.9600e-003**	**0.9992**	**0.2548**	**3.6700e-003**	**0.2585**		**425.4538**	**425.4538**	**0.0142**		**425.7528**

3.8 Grading - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.6223	16.5652	41.4523	0.0952		0.8187	0.8187		0.8187	0.8187	0.0000	9,764.4845	9,764.4845	0.4127		9,773.1510
Total	**4.6223**	**16.5652**	**41.4523**	**0.0952**	**3.9030**	**0.8187**	**4.7217**	**1.6184**	**0.8187**	**2.4372**	**0.0000**	**9,764.4845**	**9,764.4845**	**0.4127**		**9,773.1510**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.1042	1.4973	6.7700e-003	0.9952	3.9600e-003	0.9992	0.2548	3.6700e-003	0.2585		425.4538	425.4538	0.0142		425.7528
Total	**0.1155**	**0.1042**	**1.4973**	**6.7700e-003**	**0.9952**	**3.9600e-003**	**0.9992**	**0.2548**	**3.6700e-003**	**0.2585**		**425.4538**	**425.4538**	**0.0142**		**425.7528**

3.9 Building Construction - Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5851	21.8691	49.6461	0.1428	6.9926	0.4869	7.4795	1.8766	0.4480	2.3246		13,373.8817	13,373.8817	0.0937		13,375.8484
Worker	2.4942	2.2515	32.3419	0.1462	21.4969	0.0855	21.5825	5.5043	0.0793	5.5837		9,189.8015	9,189.8015	0.3075		9,196.2598
Total	**6.0793**	**24.1206**	**81.9879**	**0.2890**	**28.4895**	**0.5724**	**29.0619**	**7.3810**	**0.5273**	**7.9083**		**22,563.6831**	**22,563.6831**	**0.4012**		**22,572.1082**

3.9 Building Construction - Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3991	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3991**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5851	21.8691	49.6461	0.1428	6.9926	0.4869	7.4795	1.8766	0.4480	2.3246		13,373.8817	13,373.8817	0.0937		13,375.8484
Worker	2.4942	2.2515	32.3419	0.1462	21.4969	0.0855	21.5825	5.5043	0.0793	5.5837		9,189.8015	9,189.8015	0.3075		9,196.2598
Total	**6.0793**	**24.1206**	**81.9879**	**0.2890**	**28.4895**	**0.5724**	**29.0619**	**7.3810**	**0.5273**	**7.9083**		**22,563.6831**	**22,563.6831**	**0.4012**		**22,572.1082**

3.9 Building Construction - Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5798	21.7773	49.4832	0.1429	6.9935	0.4873	7.4809	1.8770	0.4483	2.3254		13,381.6993	13,381.6993	0.0938		13,383.6681
Worker	2.4192	2.2034	31.8062	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,162.2142	9,162.2142	0.3034		9,168.5856
Total	**5.9990**	**23.9807**	**81.2893**	**0.2891**	**28.4905**	**0.5730**	**29.0634**	**7.3813**	**0.5278**	**7.9092**		**22,543.9135**	**22,543.9135**	**0.3972**		**22,552.2536**

3.9 Building Construction - Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3991	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3991**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5798	21.7773	49.4832	0.1429	6.9935	0.4873	7.4809	1.8770	0.4483	2.3254		13,381.6993	13,381.6993	0.0938		13,383.6681
Worker	2.4192	2.2034	31.8062	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,162.2142	9,162.2142	0.3034		9,168.5856
Total	**5.9990**	**23.9807**	**81.2893**	**0.2891**	**28.4905**	**0.5730**	**29.0634**	**7.3813**	**0.5278**	**7.9092**		**22,543.9135**	**22,543.9135**	**0.3972**		**22,552.2536**

3.9 Building Construction - Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5744	21.6959	49.3118	0.1429	6.9945	0.4876	7.4821	1.8774	0.4486	2.3260		13,389.3168	13,389.3168	0.0938		13,391.2875
Worker	2.3393	2.1620	31.2850	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,138.8774	9,138.8774	0.2995		9,145.1661
Total	**5.9137**	**23.8579**	**80.5968**	**0.2892**	**28.4914**	**0.5733**	**29.0647**	**7.3817**	**0.5281**	**7.9098**		**22,528.1943**	**22,528.1943**	**0.3933**		**22,536.4535**

3.9 Building Construction - Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3991	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3991**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5744	21.6959	49.3118	0.1429	6.9945	0.4876	7.4821	1.8774	0.4486	2.3260		13,389.3168	13,389.3168	0.0938		13,391.2875
Worker	2.3393	2.1620	31.2850	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,138.8774	9,138.8774	0.2995		9,145.1661
Total	**5.9137**	**23.8579**	**80.5968**	**0.2892**	**28.4914**	**0.5733**	**29.0647**	**7.3817**	**0.5281**	**7.9098**		**22,528.1943**	**22,528.1943**	**0.3933**		**22,536.4535**

3.9 Building Construction - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**7.1510**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**		**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5652	21.6228	49.1290	0.1430	6.9952	0.4877	7.4829	1.8777	0.4487	2.3264		13,395.9285	13,395.9285	0.0939		13,397.9005
Worker	2.2699	2.1296	30.8368	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,119.5221	9,119.5221	0.2961		9,125.7395
Total	**5.8351**	**23.7523**	**79.9657**	**0.2892**	**28.4922**	**0.5734**	**29.0655**	**7.3820**	**0.5282**	**7.9102**		**22,515.4505**	**22,515.4505**	**0.3900**		**22,523.6401**

3.9 Building Construction - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	5.7814	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**5.7814**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5652	21.6228	49.1290	0.1430	6.9952	0.4877	7.4829	1.8777	0.4487	2.3264		13,395.9285	13,395.9285	0.0939		13,397.9005
Worker	2.2699	2.1296	30.8368	0.1462	21.4969	0.0857	21.5826	5.5043	0.0795	5.5838		9,119.5221	9,119.5221	0.2961		9,125.7395
Total	**5.8351**	**23.7523**	**79.9657**	**0.2892**	**28.4922**	**0.5734**	**29.0655**	**7.3820**	**0.5282**	**7.9102**		**22,515.4505**	**22,515.4505**	**0.3900**		**22,523.6401**

3.10 Paving - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**4.7892**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**		**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.10 Paving - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	3.8313	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**3.8313**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.11 ArcCoating - Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	606.0263					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**606.1441**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2127	3.0796	0.0146	1.1487	8.5600e-003	1.1572	0.3047	7.9400e-003	0.3126		910.7459	910.7459	0.0296		911.3668
Total	**0.2267**	**0.2127**	**3.0796**	**0.0146**	**1.1487**	**8.5600e-003**	**1.1572**	**0.3047**	**7.9400e-003**	**0.3126**		**910.7459**	**910.7459**	**0.0296**		**911.3668**

3.11 ArcCoating - Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	606.0263					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.6062	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**606.1441**	**0.6062**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2127	3.0796	0.0146	1.1487	8.5600e-003	1.1572	0.3047	7.9400e-003	0.3126		910.7459	910.7459	0.0296		911.3668
Total	**0.2267**	**0.2127**	**3.0796**	**0.0146**	**1.1487**	**8.5600e-003**	**1.1572**	**0.3047**	**7.9400e-003**	**0.3126**		**910.7459**	**910.7459**	**0.0296**		**911.3668**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	61.2876	92.4103	581.1557	2.3899	159.5444	2.4081	161.9525	42.6267	2.2245	44.8511		166,498.7604	166,498.7604	4.2856		166,588.7585
Unmitigated	61.2876	92.4103	581.1557	2.3899	159.5444	2.4081	161.9525	42.6267	2.2245	44.8511		166,498.7604	166,498.7604	4.2856		166,588.7585

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	30,319.32	30,319.32	30319.32	75,311,250	75,311,250
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	30,319.32	30,319.32	30,319.32	75,311,250	75,311,250

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hospital	8.00	4.00	5.20	64.90	16.10	19.00	100	0	0
Unenclosed Parking Structure	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
NaturalGas Unmitigated	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hospital	179187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.9324**	**17.5674**	**14.7566**	**0.1054**		**1.3351**	**1.3351**		**1.3351**	**1.3351**		**21,080.8316**	**21,080.8316**	**0.4041**	**0.3865**	**21,209.1260**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hospital	179.187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Total		**1.9324**	**17.5674**	**14.7566**	**0.1054**		**1.3351**	**1.3351**		**1.3351**	**1.3351**		**21,080.8316**	**21,080.8316**	**0.4041**	**0.3865**	**21,209.1260**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	52.7699	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816
Unmitigated	52.7699	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9697					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	44.7688					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816
Total	**52.7699**	**3.0900e-003**	**0.3439**	**3.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**		**0.7415**	**0.7415**	**1.9100e-003**		**0.7816**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9697					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	44.7688					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.0900e-003	0.3439	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		0.7415	0.7415	1.9100e-003		0.7816
Total	**52.7699**	**3.0900e-003**	**0.3439**	**3.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**		**0.7415**	**0.7415**	**1.9100e-003**		**0.7816**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MLS Stadium - Construction & Operations - MLS Match - Adjusted

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	28.10	1000sqft	0.65	28,100.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2020
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule.

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for buiding construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT -

Grading - Assume 18 acres disturbed

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and trip lengths were adjusted to reflect the VMT provided by F&P.

Road Dust -

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	3,100.00	250.00
tblConstructionPhase	NumDays	310.00	10.00
tblConstructionPhase	NumDays	220.00	54.00
tblConstructionPhase	PhaseEndDate	9/29/2017	10/1/2017
tblConstructionPhase	PhaseEndDate	10/14/2016	10/15/2016
tblConstructionPhase	PhaseEndDate	12/14/2017	1/15/2018
tblConstructionPhase	PhaseStartDate	10/2/2017	11/1/2017
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24NG	24.61	18.46
tblGrading	AcresOfGrading	25.00	18.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	CC_TL	5.00	1.35
tblVehicleTrips	CNW_TL	6.50	1.76
tblVehicleTrips	CW_TL	10.00	2.70
tblVehicleTrips	DV_TP	0.28	0.00

tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	ST_TR	10.71	49.14
tblVehicleTrips	SU_TR	10.71	49.14
tblVehicleTrips	WD_TR	10.71	49.14

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1682	1.3386	1.2767	1.8800e-003	0.0872	0.0748	0.1620	0.0304	0.0699	0.1003	0.0000	164.2382	164.2382	0.0273	0.0000	164.8121
2017	0.4740	3.5782	3.7590	6.0500e-003	0.1682	0.2066	0.3748	0.0455	0.1934	0.2389	0.0000	514.0851	514.0851	0.0777	0.0000	515.7167
2018	9.2600e-003	0.0947	0.0825	1.3000e-004	6.1000e-004	5.1700e-003	5.7700e-003	1.6000e-004	4.7500e-003	4.9100e-003	0.0000	11.7025	11.7025	3.5100e-003	0.0000	11.7763
Total	**0.6515**	**5.0115**	**5.1183**	**8.0600e-003**	**0.2560**	**0.2866**	**0.5426**	**0.0761**	**0.2680**	**0.3441**	**0.0000**	**690.0258**	**690.0258**	**0.1085**	**0.0000**	**692.3051**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1682	1.1070	1.2767	1.8800e-003	0.0654	0.0748	0.1402	0.0208	0.0699	0.0907	0.0000	164.2381	164.2381	0.0273	0.0000	164.8120
2017	0.4740	2.9760	3.7590	6.0500e-003	0.1682	0.2066	0.3748	0.0455	0.1934	0.2389	0.0000	514.0847	514.0847	0.0777	0.0000	515.7163
2018	9.2600e-003	0.0758	0.0825	1.3000e-004	6.1000e-004	5.1700e-003	5.7700e-003	1.6000e-004	4.7500e-003	4.9100e-003	0.0000	11.7025	11.7025	3.5100e-003	0.0000	11.7763
Total	**0.6515**	**4.1588**	**5.1183**	**8.0600e-003**	**0.2342**	**0.2866**	**0.5208**	**0.0664**	**0.2680**	**0.3345**	**0.0000**	**690.0254**	**690.0254**	**0.1085**	**0.0000**	**692.3046**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**17.01**	**0.00**	**0.00**	**8.52**	**0.00**	**4.02**	**12.71**	**0.00**	**2.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9314	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Energy	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	2,303.0706	2,303.0706	0.0936	0.0287	2,313.9444
Mobile	7.3626	7.3646	45.6467	0.0608	3.7600	0.0878	3.8477	1.0073	0.0810	1.0884	0.0000	4,195.5642	4,195.5642	0.2004	0.0000	4,199.7727
Waste						0.0000	0.0000		0.0000	0.0000	2.2106	0.0000	2.2106	0.1306	0.0000	4.9540
Water						0.0000	0.0000		0.0000	0.0000	60.3075	237.6085	297.9160	0.2192	0.1336	343.9251
Total	**9.3599**	**7.9636**	**46.1553**	**0.0644**	**3.7600**	**0.1333**	**3.8933**	**1.0073**	**0.1266**	**1.1339**	**62.5181**	**6,736.2538**	**6,798.7719**	**0.6439**	**0.1623**	**6,862.6073**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9314	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Energy	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	2,303.0706	2,303.0706	0.0936	0.0287	2,313.9444
Mobile	7.3626	7.3646	45.6467	0.0608	3.7600	0.0878	3.8477	1.0073	0.0810	1.0884	0.0000	4,195.5642	4,195.5642	0.2004	0.0000	4,199.7727
Waste						0.0000	0.0000		0.0000	0.0000	2.2106	0.0000	2.2106	0.1306	0.0000	4.9540
Water						0.0000	0.0000		0.0000	0.0000	60.3075	237.6085	297.9160	0.2200	0.1337	343.9924
Total	**9.3599**	**7.9636**	**46.1553**	**0.0644**	**3.7600**	**0.1333**	**3.8933**	**1.0073**	**0.1266**	**1.1339**	**62.5181**	**6,736.2538**	**6,798.7719**	**0.6447**	**0.1625**	**6,862.6747**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.12**	**-0.10**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	10/1/2016	10/15/2016	5	10	
2	Building Construction	Building Construction	10/16/2016	10/1/2017	5	250	
3	Paving	Paving	11/1/2017	1/15/2018	5	54	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 18

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	178.00	69.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0397	0.0000	0.0397	0.0176	0.0000	0.0176	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.3741	0.2457	3.1000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	29.0979	29.0979	8.7800e-003	0.0000	29.2822
Total	**0.0324**	**0.3741**	**0.2457**	**3.1000e-004**	**0.0397**	**0.0179**	**0.0576**	**0.0176**	**0.0165**	**0.0341**	**0.0000**	**29.0979**	**29.0979**	**8.7800e-003**	**0.0000**	**29.2822**

3.2 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	4.0000e-004	4.1900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.4000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.6555	0.6555	4.0000e-005	0.0000	0.6562
Total	**3.4000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6555**	**0.6555**	**4.0000e-005**	**0.0000**	**0.6562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0178	0.0000	0.0178	7.9100e-003	0.0000	7.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.2993	0.2457	3.1000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	29.0978	29.0978	8.7800e-003	0.0000	29.2821
Total	**0.0324**	**0.2993**	**0.2457**	**3.1000e-004**	**0.0178**	**0.0179**	**0.0358**	**7.9100e-003**	**0.0165**	**0.0244**	**0.0000**	**29.0978**	**29.0978**	**8.7800e-003**	**0.0000**	**29.2821**

3.2 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	4.0000e-004	4.1900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.4000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.6555	0.6555	4.0000e-005	0.0000	0.6562
Total	**3.4000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6555**	**0.6555**	**4.0000e-005**	**0.0000**	**0.6562**

3.3 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.7839	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9391
Total	**0.0937**	**0.7839**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9391**

3.3 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0254	0.1607	0.3127	4.0000e-004	0.0108	2.5100e-003	0.0133	3.0900e-003	2.3100e-003	5.4000e-003	0.0000	35.8081	35.8081	2.9000e-004	0.0000	35.8141
Worker	0.0164	0.0196	0.2053	4.3000e-004	0.0360	2.7000e-004	0.0362	9.5600e-003	2.5000e-004	9.8100e-003	0.0000	32.0846	32.0846	1.7100e-003	0.0000	32.1206
Total	**0.0418**	**0.1803**	**0.5179**	**8.3000e-004**	**0.0468**	**2.7800e-003**	**0.0496**	**0.0127**	**2.5600e-003**	**0.0152**	**0.0000**	**67.8927**	**67.8927**	**2.0000e-003**	**0.0000**	**67.9347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.6271	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9390
Total	**0.0937**	**0.6271**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9390**

3.3 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0254	0.1607	0.3127	4.0000e-004	0.0108	2.5100e-003	0.0133	3.0900e-003	2.3100e-003	5.4000e-003	0.0000	35.8081	35.8081	2.9000e-004	0.0000	35.8141
Worker	0.0164	0.0196	0.2053	4.3000e-004	0.0360	2.7000e-004	0.0362	9.5600e-003	2.5000e-004	9.8100e-003	0.0000	32.0846	32.0846	1.7100e-003	0.0000	32.1206
Total	**0.0418**	**0.1803**	**0.5179**	**8.3000e-004**	**0.0468**	**2.7800e-003**	**0.0496**	**0.0127**	**2.5600e-003**	**0.0152**	**0.0000**	**67.8927**	**67.8927**	**2.0000e-003**	**0.0000**	**67.9347**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3025	2.5746	1.7676	2.6100e-003		0.1737	0.1737		0.1631	0.1631	0.0000	233.4921	233.4921	0.0575	0.0000	234.6989
Total	**0.3025**	**2.5746**	**1.7676**	**2.6100e-003**		**0.1737**	**0.1737**		**0.1631**	**0.1631**	**0.0000**	**233.4921**	**233.4921**	**0.0575**	**0.0000**	**234.6989**

3.3 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0773	0.5041	1.0136	1.4000e-003	0.0384	7.5100e-003	0.0459	0.0110	6.9000e-003	0.0179	0.0000	124.8177	124.8177	9.5000e-004	0.0000	124.8376
Worker	0.0516	0.0620	0.6491	1.5200e-003	0.1275	9.4000e-004	0.1284	0.0339	8.6000e-004	0.0348	0.0000	109.2542	109.2542	5.5500e-003	0.0000	109.3707
Total	**0.1289**	**0.5661**	**1.6628**	**2.9200e-003**	**0.1658**	**8.4500e-003**	**0.1743**	**0.0449**	**7.7600e-003**	**0.0526**	**0.0000**	**234.0719**	**234.0719**	**6.5000e-003**	**0.0000**	**234.2083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3025	2.0596	1.7676	2.6100e-003		0.1737	0.1737		0.1631	0.1631	0.0000	233.4919	233.4919	0.0575	0.0000	234.6987
Total	**0.3025**	**2.0596**	**1.7676**	**2.6100e-003**		**0.1737**	**0.1737**		**0.1631**	**0.1631**	**0.0000**	**233.4919**	**233.4919**	**0.0575**	**0.0000**	**234.6987**

3.3 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0773	0.5041	1.0136	1.4000e-003	0.0384	7.5100e-003	0.0459	0.0110	6.9000e-003	0.0179	0.0000	124.8177	124.8177	9.5000e-004	0.0000	124.8376
Worker	0.0516	0.0620	0.6491	1.5200e-003	0.1275	9.4000e-004	0.1284	0.0339	8.6000e-004	0.0348	0.0000	109.2542	109.2542	5.5500e-003	0.0000	109.3707
Total	**0.1289**	**0.5661**	**1.6628**	**2.9200e-003**	**0.1658**	**8.4500e-003**	**0.1743**	**0.0449**	**7.7600e-003**	**0.0526**	**0.0000**	**234.0719**	**234.0719**	**6.5000e-003**	**0.0000**	**234.2083**

3.4 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.4364	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4909	44.4909	0.0136	0.0000	44.7771
Paving	6.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0417**	**0.4364**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4909**	**44.4909**	**0.0136**	**0.0000**	**44.7771**

3.4 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	1.1500e-003	0.0121	3.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.0302	2.0302	1.0000e-004	0.0000	2.0324
Total	**9.6000e-004**	**1.1500e-003**	**0.0121**	**3.0000e-005**	**2.3700e-003**	**2.0000e-005**	**2.3900e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0302**	**2.0302**	**1.0000e-004**	**0.0000**	**2.0324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.3491	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4908	44.4908	0.0136	0.0000	44.7771
Paving	6.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0417**	**0.3491**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4908**	**44.4908**	**0.0136**	**0.0000**	**44.7771**

3.4 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	1.1500e-003	0.0121	3.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.0302	2.0302	1.0000e-004	0.0000	2.0324
Total	**9.6000e-004**	**1.1500e-003**	**0.0121**	**3.0000e-005**	**2.3700e-003**	**2.0000e-005**	**2.3900e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0302**	**2.0302**	**1.0000e-004**	**0.0000**	**2.0324**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0944	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2761
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0300e-003**	**0.0944**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2761**

3.4 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	2.7000e-004	2.7700e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.4997	0.4997	2.0000e-005	0.0000	0.5002
Total	**2.2000e-004**	**2.7000e-004**	**2.7700e-003**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4997**	**0.4997**	**2.0000e-005**	**0.0000**	**0.5002**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0755	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2760
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0300e-003**	**0.0755**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2760**

3.4 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	2.7000e-004	2.7700e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.4997	0.4997	2.0000e-005	0.0000	0.5002
Total	**2.2000e-004**	**2.7000e-004**	**2.7700e-003**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4997**	**0.4997**	**2.0000e-005**	**0.0000**	**0.5002**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.3626	7.3646	45.6467	0.0608	3.7600	0.0878	3.8477	1.0073	0.0810	1.0884	0.0000	4,195.5642	4,195.5642	0.2004	0.0000	4,199.7727
Unmitigated	7.3626	7.3646	45.6467	0.0608	3.7600	0.0878	3.8477	1.0073	0.0810	1.0884	0.0000	4,195.5642	4,195.5642	0.2004	0.0000	4,199.7727

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	19,444.70	19,444.70	19444.70	10,099,767	10,099,767
Parking Lot	0.00	0.00	0.00		
Total	19,444.70	19,444.70	19,444.70	10,099,767	10,099,767

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	2.70	1.35	1.76	0.00	81.00	19.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.503605	0.067800	0.178973	0.146934	0.044621	0.006359	0.021238	0.016884	0.002315	0.002275	0.006260	0.000554	0.002182

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,651.0067	1,651.0067	0.0811	0.0168	1,657.9121
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,651.0067	1,651.0067	0.0811	0.0168	1,657.9121
NaturalGas Mitigated	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
NaturalGas Unmitigated	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Total		**0.0659**	**0.5990**	**0.5031**	**3.5900e-003**		**0.0455**	**0.0455**		**0.0455**	**0.0455**	**0.0000**	**652.0639**	**652.0639**	**0.0125**	**0.0120**	**656.0323**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0659**	**0.5990**	**0.5031**	**3.5900e-003**		**0.0455**	**0.0455**		**0.0455**	**0.0455**	**0.0000**	**652.0639**	**652.0639**	**0.0125**	**0.0120**	**656.0323**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
Parking Lot	24728	6.6212	3.3000e-004	7.0000e-005	6.6489
Total		**1,651.0067**	**0.0811**	**0.0168**	**1,657.9121**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
Parking Lot	24728	6.6212	3.3000e-004	7.0000e-005	6.6489
Total		**1,651.0067**	**0.0811**	**0.0168**	**1,657.9121**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9314	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Unmitigated	1.9314	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Total	**1.9314**	**5.0000e-005**	**5.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0105**	**0.0105**	**3.0000e-005**	**0.0000**	**0.0111**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Total	**1.9314**	**5.0000e-005**	**5.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0105**	**0.0105**	**3.0000e-005**	**0.0000**	**0.0111**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	297.9160	0.2200	0.1337	343.9924
Unmitigated	297.9160	0.2192	0.1336	343.9251

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	170.456 / 10.8802	297.9160	0.2192	0.1336	343.9251
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**297.9160**	**0.2192**	**0.1336**	**343.9251**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	170.456 / 10.8802	297.9160	0.2200	0.1337	343.9924
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**297.9160**	**0.2200**	**0.1337**	**343.9924**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.2106	0.1306	0.0000	4.9540
Unmitigated	2.2106	0.1306	0.0000	4.9540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	10.89	2.2106	0.1306	0.0000	4.9540
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.2106**	**0.1306**	**0.0000**	**4.9540**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	10.89	2.2106	0.1306	0.0000	4.9540
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.2106**	**0.1306**	**0.0000**	**4.9540**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MLS Stadium - Construction & Operations - MLS Match - Adjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	28.10	1000sqft	0.65	28,100.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2020
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule.

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for buiding construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT -

Grading - Assume 18 acres disturbed

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and trip lengths were adjusted to reflect the VMT provided by F&P.

Road Dust -

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	3,100.00	250.00
tblConstructionPhase	NumDays	310.00	10.00
tblConstructionPhase	NumDays	220.00	54.00
tblConstructionPhase	PhaseEndDate	9/29/2017	10/1/2017
tblConstructionPhase	PhaseEndDate	10/14/2016	10/15/2016
tblConstructionPhase	PhaseEndDate	12/14/2017	1/15/2018
tblConstructionPhase	PhaseStartDate	10/2/2017	11/1/2017
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24NG	24.61	18.46
tblGrading	AcresOfGrading	25.00	18.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	CC_TL	5.00	1.35
tblVehicleTrips	CNW_TL	6.50	1.76
tblVehicleTrips	CW_TL	10.00	2.70
tblVehicleTrips	DV_TP	0.28	0.00

tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	ST_TR	10.71	49.14
tblVehicleTrips	SU_TR	10.71	49.14
tblVehicleTrips	WD_TR	10.71	49.14

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	6.5596	74.8858	50.1026	0.0637	8.0831	3.5854	11.6685	3.5567	3.2985	6.8552	0.0000	6,574.8668	6,574.8668	1.9427	0.0000	6,615.6637
2017	4.4573	31.8873	34.5262	0.0585	1.7595	1.8674	3.6268	0.4746	1.7522	2.2268	0.0000	5,423.0277	5,423.0277	0.7230	0.0000	5,438.2102
2018	1.6910	17.2063	15.0789	0.0238	0.1141	0.9394	1.0535	0.0303	0.8643	0.8946	0.0000	2,356.1082	2,356.1082	0.7039	0.0000	2,370.8890
Total	**12.7079**	**123.9795**	**99.7077**	**0.1460**	**9.9567**	**6.3922**	**16.3489**	**4.0616**	**5.9150**	**9.9765**	**0.0000**	**14,354.0027**	**14,354.0027**	**3.3695**	**0.0000**	**14,424.7629**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	6.5596	59.9231	50.1026	0.0637	3.7211	3.5854	7.3064	1.6227	3.2985	4.9212	0.0000	6,574.8668	6,574.8668	1.9427	0.0000	6,615.6637
2017	4.4573	26.6062	34.5262	0.0585	1.7595	1.8674	3.6268	0.4746	1.7522	2.2268	0.0000	5,423.0277	5,423.0277	0.7230	0.0000	5,438.2102
2018	1.6910	13.7738	15.0789	0.0238	0.1141	0.9394	1.0535	0.0303	0.8643	0.8946	0.0000	2,356.1082	2,356.1082	0.7039	0.0000	2,370.8890
Total	**12.7079**	**100.3031**	**99.7077**	**0.1460**	**5.5946**	**6.3922**	**11.9868**	**2.1276**	**5.9150**	**8.0426**	**0.0000**	**14,354.0027**	**14,354.0027**	**3.3695**	**0.0000**	**14,424.7629**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**19.10**	**0.00**	**0.00**	**43.81**	**0.00**	**26.68**	**47.62**	**0.00**	**19.39**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.5841	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980
Energy	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Mobile	46.9368	38.2191	219.2651	0.3591	21.3879	0.4788	21.8667	5.7137	0.4421	6.1558		27,262.8668	27,262.8668	1.2136		27,288.3522
Total	**57.8820**	**41.5016**	**222.0656**	**0.3788**	**21.3879**	**0.7284**	**22.1163**	**5.7137**	**0.6917**	**6.4054**		**31,201.4659**	**31,201.4659**	**1.2893**	**0.0722**	**31,250.9257**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.5841	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980
Energy	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Mobile	46.9368	38.2191	219.2651	0.3591	21.3879	0.4788	21.8667	5.7137	0.4421	6.1558		27,262.8668	27,262.8668	1.2136		27,288.3522
Total	**57.8820**	**41.5016**	**222.0656**	**0.3788**	**21.3879**	**0.7284**	**22.1163**	**5.7137**	**0.6917**	**6.4054**		**31,201.4659**	**31,201.4659**	**1.2893**	**0.0722**	**31,250.9257**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	10/1/2016	10/15/2016	5	10	
2	Building Construction	Building Construction	10/16/2016	10/1/2017	5	250	
3	Paving	Paving	11/1/2017	1/15/2018	5	54	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 18

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	178.00	69.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9310	0.0000	7.9310	3.5163	0.0000	3.5163			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**7.9310**	**3.5842**	**11.5152**	**3.5163**	**3.2975**	**6.8138**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**0.0802**	**0.0721**	**0.9651**	**1.9500e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**		**159.8861**	**159.8861**	**7.7200e-003**		**160.0483**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5689	0.0000	3.5689	1.5824	0.0000	1.5824			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**3.5689**	**3.5842**	**7.1532**	**1.5824**	**3.2975**	**4.8799**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**0.0802**	**0.0721**	**0.9651**	**1.9500e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**		**159.8861**	**159.8861**	**7.7200e-003**		**160.0483**

3.3 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8337	5.5419	9.7235	0.0144	0.4053	0.0908	0.4961	0.1154	0.0834	0.1988		1,440.6054	1,440.6054	0.0113		1,440.8434
Worker	0.7134	0.6417	8.5898	0.0173	1.3540	9.9500e-003	1.3640	0.3592	9.1400e-003	0.3683		1,422.9859	1,422.9859	0.0687		1,424.4295
Total	**1.5470**	**6.1835**	**18.3132**	**0.0318**	**1.7593**	**0.1008**	**1.8601**	**0.4746**	**0.0926**	**0.5671**		**2,863.5913**	**2,863.5913**	**0.0801**		**2,865.2729**

3.3 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	22.8051	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**22.8051**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8337	5.5419	9.7235	0.0144	0.4053	0.0908	0.4961	0.1154	0.0834	0.1988		1,440.6054	1,440.6054	0.0113		1,440.8434
Worker	0.7134	0.6417	8.5898	0.0173	1.3540	9.9500e-003	1.3640	0.3592	9.1400e-003	0.3683		1,422.9859	1,422.9859	0.0687		1,424.4295
Total	**1.5470**	**6.1835**	**18.3132**	**0.0318**	**1.7593**	**0.1008**	**1.8601**	**0.4746**	**0.0926**	**0.5671**		**2,863.5913**	**2,863.5913**	**0.0801**		**2,865.2729**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7189	4.9081	8.7073	0.0144	0.4054	0.0766	0.4820	0.1154	0.0703	0.1858		1,416.3620	1,416.3620	0.0106		1,416.5838
Worker	0.6360	0.5736	7.6898	0.0173	1.3540	9.6100e-003	1.3637	0.3592	8.8700e-003	0.3680		1,366.8604	1,366.8604	0.0627		1,368.1774
Total	**1.3549**	**5.4817**	**16.3971**	**0.0317**	**1.7594**	**0.0862**	**1.8456**	**0.4746**	**0.0792**	**0.5538**		**2,783.2224**	**2,783.2224**	**0.0733**		**2,784.7612**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7189	4.9081	8.7073	0.0144	0.4054	0.0766	0.4820	0.1154	0.0703	0.1858		1,416.3620	1,416.3620	0.0106		1,416.5838
Worker	0.6360	0.5736	7.6898	0.0173	1.3540	9.6100e-003	1.3637	0.3592	8.8700e-003	0.3680		1,366.8604	1,366.8604	0.0627		1,368.1774
Total	**1.3549**	**5.4817**	**16.3971**	**0.0317**	**1.7594**	**0.0862**	**1.8456**	**0.4746**	**0.0792**	**0.5538**		**2,783.2224**	**2,783.2224**	**0.0733**		**2,784.7612**

3.4 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9389**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0483	0.6480	1.4600e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		115.1849	115.1849	5.2800e-003		115.2959
Total	**0.0536**	**0.0483**	**0.6480**	**1.4600e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**115.1849**	**115.1849**	**5.2800e-003**		**115.2959**

3.4 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	16.2371	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9389**	**16.2371**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0483	0.6480	1.4600e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		115.1849	115.1849	5.2800e-003		115.2959
Total	**0.0536**	**0.0483**	**0.6480**	**1.4600e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**115.1849**	**115.1849**	**5.2800e-003**		**115.2959**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6430**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0436	0.5845	1.4600e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		110.8387	110.8387	4.8600e-003		110.9409
Total	**0.0481**	**0.0436**	**0.5845**	**1.4600e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**110.8387**	**110.8387**	**4.8600e-003**		**110.9409**

3.4 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	13.7302	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6430**	**13.7302**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0436	0.5845	1.4600e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		110.8387	110.8387	4.8600e-003		110.9409
Total	**0.0481**	**0.0436**	**0.5845**	**1.4600e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**110.8387**	**110.8387**	**4.8600e-003**		**110.9409**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	46.9368	38.2191	219.2651	0.3591	21.3879	0.4788	21.8667	5.7137	0.4421	6.1558		27,262.8668	27,262.8668	1.2136		27,288.3522
Unmitigated	46.9368	38.2191	219.2651	0.3591	21.3879	0.4788	21.8667	5.7137	0.4421	6.1558		27,262.8668	27,262.8668	1.2136		27,288.3522

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	19,444.70	19,444.70	19444.70	10,099,767	10,099,767
Parking Lot	0.00	0.00	0.00		
Total	19,444.70	19,444.70	19,444.70	10,099,767	10,099,767

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	2.70	1.35	1.76	0.00	81.00	19.00	100	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.503605	0.067800	0.178973	0.146934	0.044621	0.006359	0.021238	0.016884	0.002315	0.002275	0.006260	0.000554	0.002182

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
NaturalGas Unmitigated	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33477.3	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3610**	**3.2821**	**2.7570**	**0.0197**		**0.2494**	**0.2494**		**0.2494**	**0.2494**		**3,938.5064**	**3,938.5064**	**0.0755**	**0.0722**	**3,962.4755**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33.4773	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3610**	**3.2821**	**2.7570**	**0.0197**		**0.2494**	**0.2494**		**0.2494**	**0.2494**		**3,938.5064**	**3,938.5064**	**0.0755**	**0.0722**	**3,962.4755**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.5841	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980
Unmitigated	10.5841	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-003	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980
Total	**10.5841**	**4.0000e-004**	**0.0436**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0928**	**0.0928**	**2.5000e-004**		**0.0980**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-003	4.0000e-004	0.0436	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0928	0.0928	2.5000e-004		0.0980
Total	**10.5841**	**4.0000e-004**	**0.0436**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0928**	**0.0928**	**2.5000e-004**		**0.0980**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Outfall - Construction Only

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.40	1000sqft	0.12	5,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for buiding construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT -

Grading -

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P

Road Dust -

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	5.00	2.00
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016
tblConstructionPhase	PhaseEndDate	1/1/2016	1/2/2016
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0155	0.1504	0.0947	1.3000e-004	7.5000e-004	0.0103	0.0110	3.1000e-004	9.4800e-003	9.7800e-003	0.0000	12.3143	12.3143	3.5100e-003	0.0000	12.3880
Total	**0.0155**	**0.1504**	**0.0947**	**1.3000e-004**	**7.5000e-004**	**0.0103**	**0.0110**	**3.1000e-004**	**9.4800e-003**	**9.7800e-003**	**0.0000**	**12.3143**	**12.3143**	**3.5100e-003**	**0.0000**	**12.3880**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0155	0.1205	0.0947	1.3000e-004	5.4000e-004	0.0103	0.0108	1.9000e-004	9.4800e-003	9.6700e-003	0.0000	12.3143	12.3143	3.5100e-003	0.0000	12.3880
Total	**0.0155**	**0.1205**	**0.0947**	**1.3000e-004**	**5.4000e-004**	**0.0103**	**0.0108**	**1.9000e-004**	**9.4800e-003**	**9.6700e-003**	**0.0000**	**12.3143**	**12.3143**	**3.5100e-003**	**0.0000**	**12.3880**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**19.87**	**0.00**	**0.00**	**28.00**	**0.00**	**1.90**	**38.71**	**0.00**	**1.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0249	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	34.6149	34.6149	1.3800e-003	4.4000e-004	34.7800
Mobile	0.0197	0.0463	0.2137	4.2000e-004	0.0293	6.2000e-004	0.0299	7.8400e-003	5.7000e-004	8.4100e-003	0.0000	32.8296	32.8296	1.4500e-003	0.0000	32.8602
Waste						0.0000	0.0000		0.0000	0.0000	1.3600	0.0000	1.3600	0.0804	0.0000	3.0479
Water						0.0000	0.0000		0.0000	0.0000	0.4418	1.6660	2.1078	1.6000e-003	9.8000e-004	2.4446
Total	**0.0457**	**0.0561**	**0.2220**	**4.8000e-004**	**0.0293**	**1.3600e-003**	**0.0306**	**7.8400e-003**	**1.3100e-003**	**9.1500e-003**	**1.8019**	**69.1107**	**70.9125**	**0.0848**	**1.4200e-003**	**73.1328**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0249	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	34.6149	34.6149	1.3800e-003	4.4000e-004	34.7800
Mobile	0.0197	0.0463	0.2137	4.2000e-004	0.0293	6.2000e-004	0.0299	7.8400e-003	5.7000e-004	8.4100e-003	0.0000	32.8296	32.8296	1.4500e-003	0.0000	32.8602
Waste						0.0000	0.0000		0.0000	0.0000	1.3600	0.0000	1.3600	0.0804	0.0000	3.0479
Water						0.0000	0.0000		0.0000	0.0000	0.4418	1.6660	2.1078	1.6100e-003	9.8000e-004	2.4451
Total	**0.0457**	**0.0561**	**0.2220**	**4.8000e-004**	**0.0293**	**1.3600e-003**	**0.0306**	**7.8400e-003**	**1.3100e-003**	**9.1500e-003**	**1.8019**	**69.1107**	**70.9125**	**0.0848**	**1.4200e-003**	**73.1333**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	1/2/2016	5	1	
2	Building Construction	Building Construction	1/3/2016	1/31/2016	5	20	
3	Paving	Paving	2/1/2016	2/2/2016	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Rollers	1	7.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6000e-004	5.6200e-003	4.3500e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.8000e-004	3.8000e-004	0.0000	0.5414	0.5414	1.1000e-004	0.0000	0.5437
Total	**6.6000e-004**	**5.6200e-003**	**4.3500e-003**	**1.0000e-005**	**3.8000e-004**	**4.0000e-004**	**7.8000e-004**	**2.1000e-004**	**3.8000e-004**	**5.9000e-004**	**0.0000**	**0.5414**	**0.5414**	**1.1000e-004**	**0.0000**	**0.5437**

3.2 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0328	0.0328	0.0000	0.0000	0.0328
Total	**2.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0328**	**0.0328**	**0.0000**	**0.0000**	**0.0328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6000e-004	4.5000e-003	4.3500e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.8000e-004	3.8000e-004	0.0000	0.5414	0.5414	1.1000e-004	0.0000	0.5437
Total	**6.6000e-004**	**4.5000e-003**	**4.3500e-003**	**1.0000e-005**	**1.7000e-004**	**4.0000e-004**	**5.7000e-004**	**9.0000e-005**	**3.8000e-004**	**4.7000e-004**	**0.0000**	**0.5414**	**0.5414**	**1.1000e-004**	**0.0000**	**0.5437**

3.2 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0328	0.0328	0.0000	0.0000	0.0328
Total	**2.0000e-005**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0328**	**0.0328**	**0.0000**	**0.0000**	**0.0328**

3.3 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1371	0.0821	1.1000e-004		9.4000e-003	9.4000e-003		8.6500e-003	8.6500e-003	0.0000	10.6917	10.6917	3.2200e-003	0.0000	10.7594
Total	**0.0138**	**0.1371**	**0.0821**	**1.1000e-004**		**9.4000e-003**	**9.4000e-003**		**8.6500e-003**	**8.6500e-003**	**0.0000**	**10.6917**	**10.6917**	**3.2200e-003**	**0.0000**	**10.7594**

3.3 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	8.5000e-004	1.6500e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1887	0.1887	0.0000	0.0000	0.1887
Worker	7.0000e-005	8.0000e-005	8.4000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	**2.0000e-004**	**9.3000e-004**	**2.4900e-003**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**0.3198**	**0.3198**	**1.0000e-005**	**0.0000**	**0.3200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1097	0.0821	1.1000e-004		9.4000e-003	9.4000e-003		8.6500e-003	8.6500e-003	0.0000	10.6917	10.6917	3.2200e-003	0.0000	10.7594
Total	**0.0138**	**0.1097**	**0.0821**	**1.1000e-004**		**9.4000e-003**	**9.4000e-003**		**8.6500e-003**	**8.6500e-003**	**0.0000**	**10.6917**	**10.6917**	**3.2200e-003**	**0.0000**	**10.7594**

3.3 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	8.5000e-004	1.6500e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1887	0.1887	0.0000	0.0000	0.1887
Worker	7.0000e-005	8.0000e-005	8.4000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	**2.0000e-004**	**9.3000e-004**	**2.4900e-003**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**0.3198**	**0.3198**	**1.0000e-005**	**0.0000**	**0.3200**

3.4 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	6.6800e-003	4.8000e-003	1.0000e-005		4.6000e-004	4.6000e-004		4.3000e-004	4.3000e-004	0.0000	0.6107	0.6107	1.6000e-004	0.0000	0.6140
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.7000e-004**	**6.6800e-003**	**4.8000e-003**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6107**	**0.6107**	**1.6000e-004**	**0.0000**	**0.6140**

3.4 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	7.0000e-005	7.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1180	0.1180	1.0000e-005	0.0000	0.1181
Total	**6.0000e-005**	**7.0000e-005**	**7.5000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1180**	**0.1180**	**1.0000e-005**	**0.0000**	**0.1181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	5.3400e-003	4.8000e-003	1.0000e-005		4.6000e-004	4.6000e-004		4.3000e-004	4.3000e-004	0.0000	0.6107	0.6107	1.6000e-004	0.0000	0.6140
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.7000e-004**	**5.3400e-003**	**4.8000e-003**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6107**	**0.6107**	**1.6000e-004**	**0.0000**	**0.6140**

3.4 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	7.0000e-005	7.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1180	0.1180	1.0000e-005	0.0000	0.1181
Total	**6.0000e-005**	**7.0000e-005**	**7.5000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1180**	**0.1180**	**1.0000e-005**	**0.0000**	**0.1181**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0197	0.0463	0.2137	4.2000e-004	0.0293	6.2000e-004	0.0299	7.8400e-003	5.7000e-004	8.4100e-003	0.0000	32.8296	32.8296	1.4500e-003	0.0000	32.8602
Unmitigated	0.0197	0.0463	0.2137	4.2000e-004	0.0293	6.2000e-004	0.0299	7.8400e-003	5.7000e-004	8.4100e-003	0.0000	32.8296	32.8296	1.4500e-003	0.0000	32.8602

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	37.64	7.13	3.67	78,622	78,622
Total	37.64	7.13	3.67	78,622	78,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504516	0.068219	0.178179	0.147873	0.044976	0.006346	0.020386	0.015946	0.002304	0.002308	0.006193	0.000574	0.002181

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.9442	23.9442	1.1800e-003	2.4000e-004	24.0443
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.9442	23.9442	1.1800e-003	2.4000e-004	24.0443
NaturalGas Mitigated	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6707	10.6707	2.0000e-004	2.0000e-004	10.7357
NaturalGas Unmitigated	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6707	10.6707	2.0000e-004	2.0000e-004	10.7357

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	199962	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6707	10.6707	2.0000e-004	2.0000e-004	10.7357
Total		**1.0800e-003**	**9.8000e-003**	**8.2300e-003**	**6.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**10.6707**	**10.6707**	**2.0000e-004**	**2.0000e-004**	**10.7357**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	199962	1.0800e-003	9.8000e-003	8.2300e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6707	10.6707	2.0000e-004	2.0000e-004	10.7357
Total		**1.0800e-003**	**9.8000e-003**	**8.2300e-003**	**6.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**10.6707**	**10.6707**	**2.0000e-004**	**2.0000e-004**	**10.7357**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	89424	23.9442	1.1800e-003	2.4000e-004	24.0443
Total		**23.9442**	**1.1800e-003**	**2.4000e-004**	**24.0443**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	89424	23.9442	1.1800e-003	2.4000e-004	24.0443
Total		**23.9442**	**1.1800e-003**	**2.4000e-004**	**24.0443**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0249	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Unmitigated	0.0249	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0249**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0249**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1078	1.6100e-003	9.8000e-004	2.4451
Unmitigated	2.1078	1.6000e-003	9.8000e-004	2.4446

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.24875 / 0	2.1078	1.6000e-003	9.8000e-004	2.4446
Total		**2.1078**	**1.6000e-003**	**9.8000e-004**	**2.4446**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.24875 / 0	2.1078	1.6100e-003	9.8000e-004	2.4451
Total		**2.1078**	**1.6100e-003**	**9.8000e-004**	**2.4451**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.3600	0.0804	0.0000	3.0479
Unmitigated	1.3600	0.0804	0.0000	3.0479

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	6.7	1.3600	0.0804	0.0000	3.0479
Total		**1.3600**	**0.0804**	**0.0000**	**3.0479**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	6.7	1.3600	0.0804	0.0000	3.0479
Total		**1.3600**	**0.0804**	**0.0000**	**3.0479**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Outfall - Construction Only

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.40	1000sqft	0.12	5,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for buiding construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT -

Grading -

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P

Road Dust -

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	5.00	2.00
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016
tblConstructionPhase	PhaseEndDate	1/1/2016	1/2/2016
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.4017	13.7934	9.1873	0.0130	0.8288	0.9412	1.6333	0.4340	0.8659	1.2018	0.0000	1,273.5536	1,273.5536	0.3564	0.0000	1,281.0387
Total	**1.4017**	**13.7934**	**9.1873**	**0.0130**	**0.8288**	**0.9412**	**1.6333**	**0.4340**	**0.8659**	**1.2018**	**0.0000**	**1,273.5536**	**1,273.5536**	**0.3564**	**0.0000**	**1,281.0387**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.4017	11.0522	9.1873	0.0130	0.4148	0.9412	1.2193	0.2064	0.8659	0.9742	0.0000	1,273.5536	1,273.5536	0.3564	0.0000	1,281.0387
Total	**1.4017**	**11.0522**	**9.1873**	**0.0130**	**0.4148**	**0.9412**	**1.2193**	**0.2064**	**0.8659**	**0.9742**	**0.0000**	**1,273.5536**	**1,273.5536**	**0.3564**	**0.0000**	**1,281.0387**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**19.87**	**0.00**	**0.00**	**49.95**	**0.00**	**25.35**	**52.44**	**0.00**	**18.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1362	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003
Energy	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441
Mobile	0.1615	0.3118	1.6672	3.3000e-003	0.2204	4.4900e-003	0.2249	0.0589	4.1200e-003	0.0630		284.9250	284.9250	0.0117		285.1702
Total	**0.3036**	**0.3655**	**1.7129**	**3.6200e-003**	**0.2204**	**8.5700e-003**	**0.2290**	**0.0589**	**8.2000e-003**	**0.0671**		**349.3781**	**349.3781**	**0.0129**	**1.1800e-003**	**350.0156**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1362	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003
Energy	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441
Mobile	0.1615	0.3118	1.6672	3.3000e-003	0.2204	4.4900e-003	0.2249	0.0589	4.1200e-003	0.0630		284.9250	284.9250	0.0117		285.1702
Total	**0.3036**	**0.3655**	**1.7129**	**3.6200e-003**	**0.2204**	**8.5700e-003**	**0.2290**	**0.0589**	**8.2000e-003**	**0.0671**		**349.3781**	**349.3781**	**0.0129**	**1.1800e-003**	**350.0156**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	1/2/2016	5	1	
2	Building Construction	Building Construction	1/3/2016	1/31/2016	5	20	
3	Paving	Paving	2/1/2016	2/2/2016	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Rollers	1	7.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0361	0.4826	9.7000e-004	0.0761	5.6000e-004	0.0766	0.0202	5.1000e-004	0.0207		79.9430	79.9430	3.8600e-003		80.0241
Total	**0.0401**	**0.0361**	**0.4826**	**9.7000e-004**	**0.0761**	**5.6000e-004**	**0.0766**	**0.0202**	**5.1000e-004**	**0.0207**		**79.9430**	**79.9430**	**3.8600e-003**		**80.0241**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	1.3122	8.9908	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**8.9908**	**8.7048**	**0.0120**	**0.3387**	**0.8039**	**1.1426**	**0.1862**	**0.7674**	**0.9536**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0361	0.4826	9.7000e-004	0.0761	5.6000e-004	0.0766	0.0202	5.1000e-004	0.0207		79.9430	79.9430	3.8600e-003		80.0241
Total	**0.0401**	**0.0361**	**0.4826**	**9.7000e-004**	**0.0761**	**5.6000e-004**	**0.0766**	**0.0202**	**5.1000e-004**	**0.0207**		**79.9430**	**79.9430**	**3.8600e-003**		**80.0241**

3.3 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.0803	0.1409	2.1000e-004	5.8700e-003	1.3200e-003	7.1900e-003	1.6700e-003	1.2100e-003	2.8800e-003		20.8783	20.8783	1.6000e-004		20.8818
Worker	8.0200e-003	7.2100e-003	0.0965	1.9000e-004	0.0152	1.1000e-004	0.0153	4.0400e-003	1.0000e-004	4.1400e-003		15.9886	15.9886	7.7000e-004		16.0048
Total	**0.0201**	**0.0875**	**0.2374**	**4.0000e-004**	**0.0211**	**1.4300e-003**	**0.0225**	**5.7100e-003**	**1.3100e-003**	**7.0200e-003**		**36.8670**	**36.8670**	**9.3000e-004**		**36.8866**

3.3 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	10.9647	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**10.9647**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.0803	0.1409	2.1000e-004	5.8700e-003	1.3200e-003	7.1900e-003	1.6700e-003	1.2100e-003	2.8800e-003		20.8783	20.8783	1.6000e-004		20.8818
Worker	8.0200e-003	7.2100e-003	0.0965	1.9000e-004	0.0152	1.1000e-004	0.0153	4.0400e-003	1.0000e-004	4.1400e-003		15.9886	15.9886	7.7000e-004		16.0048
Total	**0.0201**	**0.0875**	**0.2374**	**4.0000e-004**	**0.0211**	**1.4300e-003**	**0.0225**	**5.7100e-003**	**1.3100e-003**	**7.0200e-003**		**36.8670**	**36.8670**	**9.3000e-004**		**36.8866**

3.4 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7693	6.6793	4.7979	7.1500e-003		0.4644	0.4644		0.4308	0.4308		673.1850	673.1850	0.1731		676.8197
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7693**	**6.6793**	**4.7979**	**7.1500e-003**		**0.4644**	**0.4644**		**0.4308**	**0.4308**		**673.1850**	**673.1850**	**0.1731**		**676.8197**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0649	0.8686	1.7500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.2000e-004	0.0373		143.8975	143.8975	6.9500e-003		144.0434
Total	**0.0721**	**0.0649**	**0.8686**	**1.7500e-003**	**0.1369**	**1.0100e-003**	**0.1379**	**0.0363**	**9.2000e-004**	**0.0373**		**143.8975**	**143.8975**	**6.9500e-003**		**144.0434**

3.4 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7693	5.3435	4.7979	7.1500e-003		0.4644	0.4644		0.4308	0.4308	0.0000	673.1850	673.1850	0.1731		676.8197
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7693**	**5.3435**	**4.7979**	**7.1500e-003**		**0.4644**	**0.4644**		**0.4308**	**0.4308**	**0.0000**	**673.1850**	**673.1850**	**0.1731**		**676.8197**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0649	0.8686	1.7500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.2000e-004	0.0373		143.8975	143.8975	6.9500e-003		144.0434
Total	**0.0721**	**0.0649**	**0.8686**	**1.7500e-003**	**0.1369**	**1.0100e-003**	**0.1379**	**0.0363**	**9.2000e-004**	**0.0373**		**143.8975**	**143.8975**	**6.9500e-003**		**144.0434**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1615	0.3118	1.6672	3.3000e-003	0.2204	4.4900e-003	0.2249	0.0589	4.1200e-003	0.0630		284.9250	284.9250	0.0117		285.1702
Unmitigated	0.1615	0.3118	1.6672	3.3000e-003	0.2204	4.4900e-003	0.2249	0.0589	4.1200e-003	0.0630		284.9250	284.9250	0.0117		285.1702

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	37.64	7.13	3.67	78,622	78,622
Total	37.64	7.13	3.67	78,622	78,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504516	0.068219	0.178179	0.147873	0.044976	0.006346	0.020386	0.015946	0.002304	0.002308	0.006193	0.000574	0.002181

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441
NaturalGas Unmitigated	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	547.841	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441
Total		**5.9100e-003**	**0.0537**	**0.0451**	**3.2000e-004**		**4.0800e-003**	**4.0800e-003**		**4.0800e-003**	**4.0800e-003**		**64.4519**	**64.4519**	**1.2400e-003**	**1.1800e-003**	**64.8441**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.547841	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003		64.4519	64.4519	1.2400e-003	1.1800e-003	64.8441
Total		**5.9100e-003**	**0.0537**	**0.0451**	**3.2000e-004**		**4.0800e-003**	**4.0800e-003**		**4.0800e-003**	**4.0800e-003**		**64.4519**	**64.4519**	**1.2400e-003**	**1.1800e-003**	**64.8441**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1362	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003
Unmitigated	0.1362	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0206					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003
Total	**0.1362**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.1800e-003**	**1.1800e-003**	**0.0000**		**1.2500e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0206					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.1800e-003	1.1800e-003	0.0000		1.2500e-003
Total	**0.1362**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.1800e-003**	**1.1800e-003**	**0.0000**		**1.2500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - MLS Event - Adjusted

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and trip lengths were adjusted to reflect the VMT provided by F&P.

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	NumDays	9,300.00	272.00
tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65

tblEnergyUse	T24NG	34.77	26.08
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40

tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.16
tblVehicleTrips	HS_TL	5.00	3.20
tblVehicleTrips	HW_TL	10.00	6.40
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	73.00	100.00

tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	10.71	49.14
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	10.71	49.14
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	10.71	49.14
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69
tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.8324	27.9621	44.4212	0.0723	3.7405	0.7787	4.5191	1.2019	0.7171	1.9190	0.0000	6,265.5625	6,265.5625	0.3555	0.0000	6,273.0284
2017	15.6543	57.7002	167.7121	0.3048	18.0743	1.2132	19.2875	4.8735	1.1239	5.9974	0.0000	24,087.4906	24,087.4906	0.8784	0.0000	24,105.9372
2018	9.1336	38.5262	112.4833	0.2259	13.3938	0.7995	14.1933	3.6119	0.7410	4.3529	0.0000	17,382.9422	17,382.9422	0.6036	0.0000	17,395.6172
2019	11.3520	51.0536	153.2798	0.3278	19.4842	1.0545	20.5387	5.2548	0.9773	6.2321	0.0000	24,592.0982	24,592.0982	0.8242	0.0000	24,609.4070
2020	10.1374	45.0173	142.5231	0.3287	19.5596	0.9478	20.5074	5.2753	0.8786	6.1539	0.0000	23,916.6256	23,916.6256	0.7899	0.0000	23,933.2127
2021	12.3421	30.0808	105.0550	0.2564	15.3203	0.6756	15.9959	4.1307	0.6263	4.7570	0.0000	18,472.7854	18,472.7854	0.6103	0.0000	18,485.6023
2022	4.4651	17.2706	64.1824	0.1630	9.7064	0.3998	10.1062	2.6180	0.3705	2.9884	0.0000	11,673.9835	11,673.9835	0.3663	0.0000	11,681.6766
2023	4.2095	15.7333	61.1215	0.1630	9.7071	0.3714	10.0785	2.6182	0.3441	2.9623	0.0000	11,592.3170	11,592.3170	0.3541	0.0000	11,599.7535
2024	4.0963	15.4786	59.6252	0.1643	9.7824	0.3645	10.1470	2.6386	0.3375	2.9761	0.0000	11,616.2850	11,616.2850	0.3484	0.0000	11,623.6010
2025	3.9490	15.0692	57.6853	0.1637	9.7456	0.3532	10.0988	2.6287	0.3268	2.9556	0.0000	11,514.7500	11,514.7500	0.3400	0.0000	11,521.8896
2026	3.8511	14.8559	56.2896	0.1637	9.7461	0.3539	10.1000	2.6289	0.3275	2.9564	0.0000	11,466.7639	11,466.7639	0.3344	0.0000	11,473.7861
2027	3.7688	14.6802	55.1294	0.1638	9.7466	0.3549	10.1015	2.6291	0.3284	2.9575	0.0000	11,425.5615	11,425.5615	0.3294	0.0000	11,432.4792
2028	3.6681	14.4654	53.7682	0.1632	9.7097	0.3541	10.0638	2.6192	0.3277	2.9469	0.0000	11,346.1895	11,346.1895	0.3237	0.0000	11,352.9870
2029	3.6063	14.3809	53.0062	0.1638	9.7474	0.3560	10.1034	2.6295	0.3294	2.9588	0.0000	11,359.4405	11,359.4405	0.3206	0.0000	11,366.1733
2030	3.5338	13.6674	52.3305	0.1644	9.7478	0.3071	10.0549	2.6296	0.2846	2.9142	0.0000	11,374.4862	11,374.4862	0.2596	0.0000	11,379.9385

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2031	3.4759	13.5579	51.7136	0.1644	9.7483	0.3076	10.0558	2.6298	0.2850	2.9148	0.0000	11,354.5182	11,354.5182	0.2561	0.0000	11,359.8955
2032	4.6532	18.3722	69.4473	0.2223	13.1260	0.4265	13.5525	3.5409	0.3961	3.9369	0.0000	15,343.3552	15,343.3552	0.3446	0.0000	15,350.5908
2033	12.8843	14.1740	52.9435	0.1700	9.9881	0.3453	10.3334	2.6931	0.3226	3.0157	0.0000	11,720.9117	11,720.9117	0.2681	0.0000	11,726.5421
2034	67.3893	13.7027	54.1131	0.1830	11.2905	0.3220	11.6125	3.0400	0.2986	3.3386	0.0000	12,368.1329	12,368.1329	0.2868	0.0000	12,374.1552
2035	4.5545	3.9218	15.2725	0.0509	3.0656	0.0922	3.1578	0.8258	0.0856	0.9115	0.0000	3,467.7684	3,467.7684	0.0789	0.0000	3,469.4261
Total	**190.5567**	**449.6703**	**1,482.1028**	**3.7793**	**224.4303**	**10.1777**	**234.6080**	**60.7175**	**9.4284**	**70.1458**	**0.0000**	**272,341.9681**	**272,341.9681**	**8.2729**	**0.0000**	**272,515.6992**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.8323	25.8527	44.4212	0.0723	3.1944	0.7787	3.9731	0.9501	0.7171	1.6672	0.0000	6,265.5615	6,265.5615	0.3555	0.0000	6,273.0274
2017	15.6543	56.3440	167.7121	0.3048	18.0743	1.2132	19.2875	4.8735	1.1239	5.9974	0.0000	24,087.4899	24,087.4899	0.8784	0.0000	24,105.9365
2018	9.1336	37.6747	112.4833	0.2259	13.3938	0.7995	14.1933	3.6119	0.7410	4.3529	0.0000	17,382.9417	17,382.9417	0.6036	0.0000	17,395.6167
2019	11.3520	49.9592	153.2798	0.3278	19.4842	1.0545	20.5387	5.2548	0.9773	6.2321	0.0000	24,592.0975	24,592.0975	0.8242	0.0000	24,609.4063
2020	10.1374	44.0173	142.5231	0.3287	19.5596	0.9478	20.5074	5.2753	0.8786	6.1539	0.0000	23,916.6249	23,916.6249	0.7899	0.0000	23,933.2119
2021	12.3421	29.3128	105.0550	0.2564	15.3203	0.6756	15.9959	4.1307	0.6263	4.7570	0.0000	18,472.7847	18,472.7847	0.6103	0.0000	18,485.6016
2022	4.4651	16.8667	64.1824	0.1630	9.7064	0.3998	10.1062	2.6180	0.3705	2.9884	0.0000	11,673.9832	11,673.9832	0.3663	0.0000	11,681.6763

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	4.2095	15.3612	61.1215	0.1630	9.7071	0.3714	10.0785	2.6182	0.3441	2.9623	0.0000	11,592.3166	11,592.3166	0.3541	0.0000	11,599.7531
2024	4.0963	15.1282	59.6252	0.1643	9.7824	0.3645	10.1470	2.6386	0.3375	2.9761	0.0000	11,616.2847	11,616.2847	0.3484	0.0000	11,623.6006
2025	3.9490	14.7453	57.6853	0.1637	9.7456	0.3532	10.0988	2.6287	0.3268	2.9556	0.0000	11,514.7496	11,514.7496	0.3400	0.0000	11,521.8893
2026	3.8511	14.5320	56.2896	0.1637	9.7461	0.3539	10.1000	2.6289	0.3275	2.9564	0.0000	11,466.7636	11,466.7636	0.3344	0.0000	11,473.7857
2027	3.7688	14.3563	55.1294	0.1638	9.7466	0.3549	10.1015	2.6291	0.3284	2.9575	0.0000	11,425.5612	11,425.5612	0.3294	0.0000	11,432.4789
2028	3.6681	14.1428	53.7682	0.1632	9.7097	0.3541	10.0638	2.6192	0.3277	2.9469	0.0000	11,346.1891	11,346.1891	0.3237	0.0000	11,352.9866
2029	3.6063	14.0570	53.0062	0.1638	9.7474	0.3560	10.1034	2.6295	0.3294	2.9588	0.0000	11,359.4402	11,359.4402	0.3206	0.0000	11,366.1730
2030	3.5338	13.4607	52.3305	0.1644	9.7478	0.3071	10.0549	2.6296	0.2846	2.9142	0.0000	11,374.4858	11,374.4858	0.2596	0.0000	11,379.9381
2031	3.4759	13.3512	51.7136	0.1644	9.7483	0.3076	10.0558	2.6298	0.2850	2.9148	0.0000	11,354.5178	11,354.5178	0.2561	0.0000	11,359.8951
2032	4.6532	18.0412	69.4473	0.2223	13.1260	0.4265	13.5525	3.5409	0.3961	3.9369	0.0000	15,343.3546	15,343.3546	0.3446	0.0000	15,350.5901
2033	12.8843	13.8099	52.9435	0.1700	9.9881	0.3453	10.3334	2.6931	0.3226	3.0157	0.0000	11,720.9109	11,720.9109	0.2681	0.0000	11,726.5414
2034	67.3893	13.4745	54.1131	0.1830	11.2905	0.3220	11.6125	3.0400	0.2986	3.3386	0.0000	12,368.1324	12,368.1324	0.2868	0.0000	12,374.1548
2035	4.5545	3.8423	15.2725	0.0509	3.0656	0.0922	3.1578	0.8258	0.0856	0.9115	0.0000	3,467.7682	3,467.7682	0.0789	0.0000	3,469.4259
Total	**190.5567**	**438.3300**	**1,482.1027**	**3.7793**	**223.8842**	**10.1777**	**234.0620**	**60.4657**	**9.4284**	**69.8941**	**0.0000**	**272,341.9581**	**272,341.9581**	**8.2729**	**0.0000**	**272,515.6892**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.52**	**0.00**	**0.00**	**0.24**	**0.00**	**0.23**	**0.41**	**0.00**	**0.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Energy	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	51,616.9573	51,616.9573	2.1712	0.6241	51,856.0093
Mobile	55.0202	81.9009	472.8398	1.6433	112.8160	1.8996	114.7156	30.2283	1.7552	31.9835	0.0000	104,567.9520	104,567.9520	2.9694	0.0000	104,630.3101
Waste						0.0000	0.0000		0.0000	0.0000	4,833.0951	0.0000	4,833.0951	285.6277	0.0000	10,831.2775
Water						0.0000	0.0000		0.0000	0.0000	577.1164	2,991.2551	3,568.3714	2.1333	1.2854	4,011.6586
Total	**135.9919**	**93.6524**	**542.9982**	**1.7137**	**112.8160**	**3.0928**	**115.9088**	**30.2283**	**2.9484**	**33.1767**	**5,410.2114**	**159,277.4993**	**164,687.7107**	**292.9986**	**1.9095**	**171,432.6251**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Energy	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	51,616.9573	51,616.9573	2.1712	0.6241	51,856.0093
Mobile	55.0202	81.9009	472.8398	1.6433	112.8160	1.8996	114.7156	30.2283	1.7552	31.9835	0.0000	104,567.9520	104,567.9520	2.9694	0.0000	104,630.3101
Waste						0.0000	0.0000		0.0000	0.0000	4,833.0951	0.0000	4,833.0951	285.6277	0.0000	10,831.2775
Water						0.0000	0.0000		0.0000	0.0000	577.1164	2,991.2551	3,568.3714	2.1409	1.2870	4,012.3031
Total	**135.9919**	**93.6524**	**542.9982**	**1.7137**	**112.8160**	**3.0928**	**115.9088**	**30.2283**	**2.9484**	**33.1767**	**5,410.2114**	**159,277.4993**	**164,687.7107**	**293.0061**	**1.9111**	**171,433.2695**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40

Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45
Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74

Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9928	0.0000	0.9928	0.4577	0.0000	0.4577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	9.7632	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4542	759.4542	0.2291	0.0000	764.2649
Total	**0.8456**	**9.7632**	**6.4124**	**8.0500e-003**	**0.9928**	**0.4677**	**1.4606**	**0.4577**	**0.4303**	**0.8880**	**0.0000**	**759.4542**	**759.4542**	**0.2291**	**0.0000**	**764.2649**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4468	0.0000	0.4468	0.2060	0.0000	0.2060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	7.8105	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4533	759.4533	0.2291	0.0000	764.2640
Total	**0.8456**	**7.8105**	**6.4124**	**8.0500e-003**	**0.4468**	**0.4677**	**0.9145**	**0.2060**	**0.4303**	**0.6363**	**0.0000**	**759.4533**	**759.4533**	**0.2291**	**0.0000**	**764.2640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.7839	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9391
Total	**0.0937**	**0.7839**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8993	5.6999	11.0923	0.0141	0.3839	0.0892	0.4731	0.1098	0.0819	0.1917	0.0000	1,270.4093	1,270.4093	0.0102	0.0000	1,270.6226
Worker	0.7620	0.9092	9.5289	0.0200	1.6689	0.0127	1.6816	0.4439	0.0117	0.4555	0.0000	1,489.4080	1,489.4080	0.0796	0.0000	1,491.0799
Total	**1.6613**	**6.6091**	**20.6212**	**0.0340**	**2.0528**	**0.1019**	**2.1547**	**0.5536**	**0.0936**	**0.6472**	**0.0000**	**2,759.8173**	**2,759.8173**	**0.0898**	**0.0000**	**2,761.7025**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.6271	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9390
Total	**0.0937**	**0.6271**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9390**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8993	5.6999	11.0923	0.0141	0.3839	0.0892	0.4731	0.1098	0.0819	0.1917	0.0000	1,270.4093	1,270.4093	0.0102	0.0000	1,270.6226
Worker	0.7620	0.9092	9.5289	0.0200	1.6689	0.0127	1.6816	0.4439	0.0117	0.4555	0.0000	1,489.4080	1,489.4080	0.0796	0.0000	1,491.0799
Total	**1.6613**	**6.6091**	**20.6212**	**0.0340**	**2.0528**	**0.1019**	**2.1547**	**0.5536**	**0.0936**	**0.6472**	**0.0000**	**2,759.8173**	**2,759.8173**	**0.0898**	**0.0000**	**2,761.7025**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3366	2.8650	1.9670	2.9100e-003		0.1933	0.1933		0.1815	0.1815	0.0000	259.8348	259.8348	0.0640	0.0000	261.1778
Total	**0.3366**	**2.8650**	**1.9670**	**2.9100e-003**		**0.1933**	**0.1933**		**0.1815**	**0.1815**	**0.0000**	**259.8348**	**259.8348**	**0.0640**	**0.0000**	**261.1778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0512	19.9031	40.0187	0.0553	1.5152	0.2965	1.8117	0.4332	0.2724	0.7056	0.0000	4,927.9197	4,927.9197	0.0374	0.0000	4,928.7049
Worker	2.6663	3.2026	33.5330	0.0787	6.5845	0.0484	6.6329	1.7513	0.0447	1.7959	0.0000	5,643.9208	5,643.9208	0.2866	0.0000	5,649.9383
Total	**5.7175**	**23.1057**	**73.5517**	**0.1341**	**8.0997**	**0.3449**	**8.4447**	**2.1845**	**0.3170**	**2.5015**	**0.0000**	**10,571.8405**	**10,571.8405**	**0.3239**	**0.0000**	**10,578.6432**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3366	2.2920	1.9670	2.9100e-003		0.1933	0.1933		0.1815	0.1815	0.0000	259.8345	259.8345	0.0640	0.0000	261.1775
Total	**0.3366**	**2.2920**	**1.9670**	**2.9100e-003**		**0.1933**	**0.1933**		**0.1815**	**0.1815**	**0.0000**	**259.8345**	**259.8345**	**0.0640**	**0.0000**	**261.1775**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0512	19.9031	40.0187	0.0553	1.5152	0.2965	1.8117	0.4332	0.2724	0.7056	0.0000	4,927.9197	4,927.9197	0.0374	0.0000	4,928.7049
Worker	2.6663	3.2026	33.5330	0.0787	6.5845	0.0484	6.6329	1.7513	0.0447	1.7959	0.0000	5,643.9208	5,643.9208	0.2866	0.0000	5,649.9383
Total	**5.7175**	**23.1057**	**73.5517**	**0.1341**	**8.0997**	**0.3449**	**8.4447**	**2.1845**	**0.3170**	**2.5015**	**0.0000**	**10,571.8405**	**10,571.8405**	**0.3239**	**0.0000**	**10,578.6432**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
Total	**0.4033**	**3.4327**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3228**	**311.3228**	**0.0766**	**0.0000**	**312.9319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6558	23.8470	47.9487	0.0663	1.8155	0.3553	2.1707	0.5190	0.3263	0.8454	0.0000	5,904.4199	5,904.4199	0.0448	0.0000	5,905.3607
Worker	3.1947	3.8372	40.1778	0.0943	7.8893	0.0580	7.9473	2.0983	0.0535	2.1518	0.0000	6,762.3015	6,762.3015	0.3433	0.0000	6,769.5114
Total	**6.8505**	**27.6842**	**88.1264**	**0.1606**	**9.7047**	**0.4133**	**10.1180**	**2.6173**	**0.3798**	**2.9972**	**0.0000**	**12,666.7214**	**12,666.7214**	**0.3881**	**0.0000**	**12,674.8720**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	2.7462	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
Total	**0.4033**	**2.7462**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3225**	**311.3225**	**0.0766**	**0.0000**	**312.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6558	23.8470	47.9487	0.0663	1.8155	0.3553	2.1707	0.5190	0.3263	0.8454	0.0000	5,904.4199	5,904.4199	0.0448	0.0000	5,905.3607
Worker	3.1947	3.8372	40.1778	0.0943	7.8893	0.0580	7.9473	2.0983	0.0535	2.1518	0.0000	6,762.3015	6,762.3015	0.3433	0.0000	6,769.5114
Total	**6.8505**	**27.6842**	**88.1264**	**0.1606**	**9.7047**	**0.4133**	**10.1180**	**2.6173**	**0.3798**	**2.9972**	**0.0000**	**12,666.7214**	**12,666.7214**	**0.3881**	**0.0000**	**12,674.8720**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0321	21.5660	43.4150	0.0663	1.8220	0.3277	2.1497	0.5209	0.3012	0.8221	0.0000	5,817.6462	5,817.6462	0.0439	0.0000	5,818.5674
Worker	2.8618	3.4659	36.2395	0.0946	7.9196	0.0571	7.9767	2.1064	0.0528	2.1592	0.0000	6,531.6982	6,531.6982	0.3171	0.0000	6,538.3583
Total	**5.8939**	**25.0319**	**79.6545**	**0.1609**	**9.7416**	**0.3848**	**10.1264**	**2.6272**	**0.3540**	**2.9813**	**0.0000**	**12,349.3444**	**12,349.3444**	**0.3610**	**0.0000**	**12,356.9257**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	2.4284	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**2.4284**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0321	21.5660	43.4150	0.0663	1.8220	0.3277	2.1497	0.5209	0.3012	0.8221	0.0000	5,817.6462	5,817.6462	0.0439	0.0000	5,818.5674
Worker	2.8618	3.4659	36.2395	0.0946	7.9196	0.0571	7.9767	2.1064	0.0528	2.1592	0.0000	6,531.6982	6,531.6982	0.3171	0.0000	6,538.3583
Total	**5.8939**	**25.0319**	**79.6545**	**0.1609**	**9.7416**	**0.3848**	**10.1264**	**2.6272**	**0.3540**	**2.9813**	**0.0000**	**12,349.3444**	**12,349.3444**	**0.3610**	**0.0000**	**12,356.9257**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.1888	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.1888**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	2.2629	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0339	301.0339	0.0725	0.0000	302.5568
Total	**0.2471**	**2.2629**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0339**	**301.0339**	**0.0725**	**0.0000**	**302.5568**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1285	14.2270	35.9730	0.0660	1.8234	0.2436	2.0670	0.5214	0.2241	0.7455	0.0000	5,589.5100	5,589.5100	0.0410	0.0000	5,590.3701
Worker	2.3144	2.7405	29.0771	0.0941	7.9196	0.0567	7.9763	2.1064	0.0526	2.1589	0.0000	5,917.1275	5,917.1275	0.2655	0.0000	5,922.7025
Total	**4.4429**	**16.9675**	**65.0501**	**0.1602**	**9.7430**	**0.3003**	**10.0433**	**2.6278**	**0.2767**	**2.9044**	**0.0000**	**11,506.6375**	**11,506.6375**	**0.3064**	**0.0000**	**11,513.0727**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	1.8103	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0335	301.0335	0.0725	0.0000	302.5565
Total	**0.2471**	**1.8103**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0335**	**301.0335**	**0.0725**	**0.0000**	**302.5565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1285	14.2270	35.9730	0.0660	1.8234	0.2436	2.0670	0.5214	0.2241	0.7455	0.0000	5,589.5100	5,589.5100	0.0410	0.0000	5,590.3701
Worker	2.3144	2.7405	29.0771	0.0941	7.9196	0.0567	7.9763	2.1064	0.0526	2.1589	0.0000	5,917.1275	5,917.1275	0.2655	0.0000	5,922.7025
Total	**4.4429**	**16.9675**	**65.0501**	**0.1602**	**9.7430**	**0.3003**	**10.0433**	**2.6278**	**0.2767**	**2.9044**	**0.0000**	**11,506.6375**	**11,506.6375**	**0.3064**	**0.0000**	**11,513.0727**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	2.0197	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9946	299.9946	0.0718	0.0000	301.5017
Total	**0.2209**	**2.0197**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9946**	**299.9946**	**0.0718**	**0.0000**	**301.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0605	12.6866	34.7925	0.0658	1.8171	0.2383	2.0554	0.5197	0.2192	0.7389	0.0000	5,570.3394	5,570.3394	0.0415	0.0000	5,571.2098
Worker	2.1837	2.5643	27.2673	0.0938	7.8893	0.0568	7.9461	2.0983	0.0527	2.1510	0.0000	5,803.6495	5,803.6495	0.2531	0.0000	5,808.9651
Total	**4.2442**	**15.2509**	**62.0598**	**0.1595**	**9.7064**	**0.2951**	**10.0015**	**2.6180**	**0.2719**	**2.8899**	**0.0000**	**11,373.9889**	**11,373.9889**	**0.2946**	**0.0000**	**11,380.1749**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	1.6158	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9943	299.9943	0.0718	0.0000	301.5013
Total	**0.2209**	**1.6158**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9943**	**299.9943**	**0.0718**	**0.0000**	**301.5013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0605	12.6866	34.7925	0.0658	1.8171	0.2383	2.0554	0.5197	0.2192	0.7389	0.0000	5,570.3394	5,570.3394	0.0415	0.0000	5,571.2098
Worker	2.1837	2.5643	27.2673	0.0938	7.8893	0.0568	7.9461	2.0983	0.0527	2.1510	0.0000	5,803.6495	5,803.6495	0.2531	0.0000	5,808.9651
Total	**4.2442**	**15.2509**	**62.0598**	**0.1595**	**9.7064**	**0.2951**	**10.0015**	**2.6180**	**0.2719**	**2.8899**	**0.0000**	**11,373.9889**	**11,373.9889**	**0.2946**	**0.0000**	**11,380.1749**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.8606	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0980	300.0980	0.0713	0.0000	301.5949
Total	**0.2036**	**1.8606**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0980**	**300.0980**	**0.0713**	**0.0000**	**301.5949**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9304	11.4506	33.2313	0.0657	1.8178	0.2236	2.0414	0.5199	0.2058	0.7257	0.0000	5,569.4498	5,569.4498	0.0394	0.0000	5,570.2762
Worker	2.0755	2.4220	25.7830	0.0938	7.8893	0.0572	7.9465	2.0983	0.0531	2.1514	0.0000	5,722.7692	5,722.7692	0.2435	0.0000	5,727.8824
Total	**4.0059**	**13.8727**	**59.0143**	**0.1595**	**9.7071**	**0.2809**	**9.9879**	**2.6182**	**0.2588**	**2.8770**	**0.0000**	**11,292.2190**	**11,292.2190**	**0.2828**	**0.0000**	**11,298.1586**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.4885	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0976	300.0976	0.0713	0.0000	301.5946
Total	**0.2036**	**1.4885**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0976**	**300.0976**	**0.0713**	**0.0000**	**301.5946**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9304	11.4506	33.2313	0.0657	1.8178	0.2236	2.0414	0.5199	0.2058	0.7257	0.0000	5,569.4498	5,569.4498	0.0394	0.0000	5,570.2762
Worker	2.0755	2.4220	25.7830	0.0938	7.8893	0.0572	7.9465	2.0983	0.0531	2.1514	0.0000	5,722.7692	5,722.7692	0.2435	0.0000	5,727.8824
Total	**4.0059**	**13.8727**	**59.0143**	**0.1595**	**9.7071**	**0.2809**	**9.9879**	**2.6182**	**0.2588**	**2.8770**	**0.0000**	**11,292.2190**	**11,292.2190**	**0.2828**	**0.0000**	**11,298.1586**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.7524	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4646	302.4646	0.0714	0.0000	303.9643
Total	**0.1920**	**1.7524**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4646**	**302.4646**	**0.0714**	**0.0000**	**303.9643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9088	11.4069	32.7656	0.0663	1.8325	0.2265	2.0589	0.5242	0.2083	0.7325	0.0000	5,618.7776	5,618.7776	0.0398	0.0000	5,619.6141
Worker	1.9955	2.3193	24.7462	0.0945	7.9500	0.0581	8.0080	2.1144	0.0539	2.1683	0.0000	5,695.0429	5,695.0429	0.2371	0.0000	5,700.0227
Total	**3.9043**	**13.7262**	**57.5117**	**0.1608**	**9.7824**	**0.2845**	**10.0670**	**2.6386**	**0.2622**	**2.9009**	**0.0000**	**11,313.8205**	**11,313.8205**	**0.2770**	**0.0000**	**11,319.6367**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.4020	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4642	302.4642	0.0714	0.0000	303.9639
Total	**0.1920**	**1.4020**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4642**	**302.4642**	**0.0714**	**0.0000**	**303.9639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9088	11.4069	32.7656	0.0663	1.8325	0.2265	2.0589	0.5242	0.2083	0.7325	0.0000	5,618.7776	5,618.7776	0.0398	0.0000	5,619.6141
Worker	1.9955	2.3193	24.7462	0.0945	7.9500	0.0581	8.0080	2.1144	0.0539	2.1683	0.0000	5,695.0429	5,695.0429	0.2371	0.0000	5,700.0227
Total	**3.9043**	**13.7262**	**57.5117**	**0.1608**	**9.7824**	**0.2845**	**10.0670**	**2.6386**	**0.2622**	**2.9009**	**0.0000**	**11,313.8205**	**11,313.8205**	**0.2770**	**0.0000**	**11,319.6367**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8628	11.2398	31.9516	0.0661	1.8260	0.2263	2.0523	0.5224	0.2082	0.7306	0.0000	5,602.1427	5,602.1427	0.0398	0.0000	5,602.9788
Worker	1.9085	2.2100	23.6390	0.0941	7.9196	0.0584	7.9780	2.1064	0.0542	2.1605	0.0000	5,611.2054	5,611.2054	0.2294	0.0000	5,616.0234
Total	**3.7713**	**13.4497**	**55.5906**	**0.1602**	**9.7456**	**0.2847**	**10.0303**	**2.6288**	**0.2624**	**2.8911**	**0.0000**	**11,213.3481**	**11,213.3481**	**0.2692**	**0.0000**	**11,219.0022**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8628	11.2398	31.9516	0.0661	1.8260	0.2263	2.0523	0.5224	0.2082	0.7306	0.0000	5,602.1427	5,602.1427	0.0398	0.0000	5,602.9788
Worker	1.9085	2.2100	23.6390	0.0941	7.9196	0.0584	7.9780	2.1064	0.0542	2.1605	0.0000	5,611.2054	5,611.2054	0.2294	0.0000	5,616.0234
Total	**3.7713**	**13.4497**	**55.5906**	**0.1602**	**9.7456**	**0.2847**	**10.0303**	**2.6288**	**0.2624**	**2.8911**	**0.0000**	**11,213.3481**	**11,213.3481**	**0.2692**	**0.0000**	**11,219.0022**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8345	11.1103	31.3996	0.0661	1.8265	0.2264	2.0528	0.5226	0.2083	0.7308	0.0000	5,607.1373	5,607.1373	0.0399	0.0000	5,607.9746
Worker	1.8389	2.1262	22.7952	0.0941	7.9196	0.0590	7.9786	2.1064	0.0548	2.1611	0.0000	5,558.2248	5,558.2248	0.2238	0.0000	5,562.9240
Total	**3.6734**	**13.2365**	**54.1948**	**0.1602**	**9.7461**	**0.2854**	**10.0315**	**2.6289**	**0.2630**	**2.8919**	**0.0000**	**11,165.3621**	**11,165.3621**	**0.2636**	**0.0000**	**11,170.8986**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8345	11.1103	31.3996	0.0661	1.8265	0.2264	2.0528	0.5226	0.2083	0.7308	0.0000	5,607.1373	5,607.1373	0.0399	0.0000	5,607.9746
Worker	1.8389	2.1262	22.7952	0.0941	7.9196	0.0590	7.9786	2.1064	0.0548	2.1611	0.0000	5,558.2248	5,558.2248	0.2238	0.0000	5,562.9240
Total	**3.6734**	**13.2365**	**54.1948**	**0.1602**	**9.7461**	**0.2854**	**10.0315**	**2.6289**	**0.2630**	**2.8919**	**0.0000**	**11,165.3621**	**11,165.3621**	**0.2636**	**0.0000**	**11,170.8986**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8177	11.0089	30.9845	0.0662	1.8270	0.2268	2.0538	0.5228	0.2087	0.7314	0.0000	5,611.7734	5,611.7734	0.0400	0.0000	5,612.6129
Worker	1.7735	2.0519	22.0501	0.0941	7.9196	0.0596	7.9792	2.1064	0.0553	2.1616	0.0000	5,512.3863	5,512.3863	0.2187	0.0000	5,516.9789
Total	**3.5911**	**13.0608**	**53.0347**	**0.1603**	**9.7466**	**0.2864**	**10.0330**	**2.6291**	**0.2639**	**2.8931**	**0.0000**	**11,124.1596**	**11,124.1596**	**0.2587**	**0.0000**	**11,129.5918**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8177	11.0089	30.9845	0.0662	1.8270	0.2268	2.0538	0.5228	0.2087	0.7314	0.0000	5,611.7734	5,611.7734	0.0400	0.0000	5,612.6129
Worker	1.7735	2.0519	22.0501	0.0941	7.9196	0.0596	7.9792	2.1064	0.0553	2.1616	0.0000	5,512.3863	5,512.3863	0.2187	0.0000	5,516.9789
Total	**3.5911**	**13.0608**	**53.0347**	**0.1603**	**9.7466**	**0.2864**	**10.0330**	**2.6291**	**0.2639**	**2.8931**	**0.0000**	**11,124.1596**	**11,124.1596**	**0.2587**	**0.0000**	**11,129.5918**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2471	300.2471	0.0705	0.0000	301.7269
Total	**0.1770**	**1.6133**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2471**	**300.2471**	**0.0705**	**0.0000**	**301.7269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7846	10.8745	30.3637	0.0660	1.8204	0.2261	2.0465	0.5209	0.2080	0.7289	0.0000	5,593.7647	5,593.7647	0.0399	0.0000	5,594.6022
Worker	1.7065	1.9777	21.3178	0.0937	7.8893	0.0598	7.9491	2.0983	0.0555	2.1538	0.0000	5,452.1777	5,452.1777	0.2133	0.0000	5,456.6579
Total	**3.4911**	**12.8522**	**51.6815**	**0.1597**	**9.7097**	**0.2859**	**9.9955**	**2.6192**	**0.2635**	**2.8827**	**0.0000**	**11,045.9424**	**11,045.9424**	**0.2532**	**0.0000**	**11,051.2600**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.2906	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2467	300.2467	0.0705	0.0000	301.7266
Total	**0.1770**	**1.2906**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2467**	**300.2467**	**0.0705**	**0.0000**	**301.7266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7846	10.8745	30.3637	0.0660	1.8204	0.2261	2.0465	0.5209	0.2080	0.7289	0.0000	5,593.7647	5,593.7647	0.0399	0.0000	5,594.6022
Worker	1.7065	1.9777	21.3178	0.0937	7.8893	0.0598	7.9491	2.0983	0.0555	2.1538	0.0000	5,452.1777	5,452.1777	0.2133	0.0000	5,456.6579
Total	**3.4911**	**12.8522**	**51.6815**	**0.1597**	**9.7097**	**0.2859**	**9.9955**	**2.6192**	**0.2635**	**2.8827**	**0.0000**	**11,045.9424**	**11,045.9424**	**0.2532**	**0.0000**	**11,051.2600**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7756	10.8398	30.1371	0.0662	1.8278	0.2270	2.0549	0.5231	0.2089	0.7320	0.0000	5,618.4885	5,618.4885	0.0401	0.0000	5,619.3302
Worker	1.6530	1.9216	20.7744	0.0941	7.9196	0.0604	7.9800	2.1064	0.0561	2.1624	0.0000	5,439.5501	5,439.5501	0.2098	0.0000	5,443.9557
Total	**3.4286**	**12.7614**	**50.9115**	**0.1603**	**9.7474**	**0.2874**	**10.0349**	**2.6295**	**0.2649**	**2.8944**	**0.0000**	**11,058.0386**	**11,058.0386**	**0.2499**	**0.0000**	**11,063.2859**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7756	10.8398	30.1371	0.0662	1.8278	0.2270	2.0549	0.5231	0.2089	0.7320	0.0000	5,618.4885	5,618.4885	0.0401	0.0000	5,619.3302
Worker	1.6530	1.9216	20.7744	0.0941	7.9196	0.0604	7.9800	2.1064	0.0561	2.1624	0.0000	5,439.5501	5,439.5501	0.2098	0.0000	5,443.9557
Total	**3.4286**	**12.7614**	**50.9115**	**0.1603**	**9.7474**	**0.2874**	**10.0349**	**2.6295**	**0.2649**	**2.8944**	**0.0000**	**11,058.0386**	**11,058.0386**	**0.2499**	**0.0000**	**11,063.2859**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7674	10.7703	29.9954	0.0663	1.8282	0.2272	2.0554	0.5233	0.2090	0.7322	0.0000	5,621.8180	5,621.8180	0.0401	0.0000	5,622.6608
Worker	1.5962	1.8638	20.2299	0.0941	7.9196	0.0607	7.9803	2.1064	0.0563	2.1627	0.0000	5,411.1401	5,411.1401	0.2058	0.0000	5,415.4617
Total	**3.3636**	**12.6341**	**50.2254**	**0.1604**	**9.7478**	**0.2879**	**10.0357**	**2.6296**	**0.2653**	**2.8949**	**0.0000**	**11,032.9581**	**11,032.9581**	**0.2459**	**0.0000**	**11,038.1225**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7674	10.7703	29.9954	0.0663	1.8282	0.2272	2.0554	0.5233	0.2090	0.7322	0.0000	5,621.8180	5,621.8180	0.0401	0.0000	5,622.6608
Worker	1.5962	1.8638	20.2299	0.0941	7.9196	0.0607	7.9803	2.1064	0.0563	2.1627	0.0000	5,411.1401	5,411.1401	0.2058	0.0000	5,415.4617
Total	**3.3636**	**12.6341**	**50.2254**	**0.1604**	**9.7478**	**0.2879**	**10.0357**	**2.6296**	**0.2653**	**2.8949**	**0.0000**	**11,032.9581**	**11,032.9581**	**0.2459**	**0.0000**	**11,038.1225**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7628	10.7146	29.8732	0.0663	1.8287	0.2274	2.0561	0.5234	0.2092	0.7327	0.0000	5,625.6074	5,625.6074	0.0402	0.0000	5,626.4513
Worker	1.5429	1.8100	19.7353	0.0941	7.9196	0.0609	7.9805	2.1064	0.0565	2.1628	0.0000	5,387.3827	5,387.3827	0.2022	0.0000	5,391.6281
Total	**3.3057**	**12.5246**	**49.6085**	**0.1604**	**9.7483**	**0.2883**	**10.0366**	**2.6298**	**0.2657**	**2.8955**	**0.0000**	**11,012.9901**	**11,012.9901**	**0.2424**	**0.0000**	**11,018.0795**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7628	10.7146	29.8732	0.0663	1.8287	0.2274	2.0561	0.5234	0.2092	0.7327	0.0000	5,625.6074	5,625.6074	0.0402	0.0000	5,626.4513
Worker	1.5429	1.8100	19.7353	0.0941	7.9196	0.0609	7.9805	2.1064	0.0565	2.1628	0.0000	5,387.3827	5,387.3827	0.2022	0.0000	5,391.6281
Total	**3.3057**	**12.5246**	**49.6085**	**0.1604**	**9.7483**	**0.2883**	**10.0366**	**2.6298**	**0.2657**	**2.8955**	**0.0000**	**11,012.9901**	**11,012.9901**	**0.2424**	**0.0000**	**11,018.0795**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.7364	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3879	243.3879	9.7700e-003	0.0000	243.5930
Total	**0.1213**	**0.7364**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3879**	**243.3879**	**9.7700e-003**	**0.0000**	**243.5930**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2518	7.6010	21.2132	0.0473	1.3035	0.1623	1.4658	0.3732	0.1493	0.5224	0.0000	4,011.5797	4,011.5797	0.0287	0.0000	4,012.1819
Worker	1.0647	1.2568	13.7644	0.0671	5.6439	0.0435	5.6873	1.5011	0.0403	1.5414	0.0000	3,825.1964	3,825.1964	0.1418	0.0000	3,828.1741
Total	**2.3164**	**8.8578**	**34.9776**	**0.1143**	**6.9474**	**0.2057**	**7.1531**	**1.8742**	**0.1896**	**2.0638**	**0.0000**	**7,836.7760**	**7,836.7760**	**0.1705**	**0.0000**	**7,840.3560**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.5891	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3876	243.3876	9.7700e-003	0.0000	243.5927
Total	**0.1213**	**0.5891**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3876**	**243.3876**	**9.7700e-003**	**0.0000**	**243.5927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2518	7.6010	21.2132	0.0473	1.3035	0.1623	1.4658	0.3732	0.1493	0.5224	0.0000	4,011.5797	4,011.5797	0.0287	0.0000	4,012.1819
Worker	1.0647	1.2568	13.7644	0.0671	5.6439	0.0435	5.6873	1.5011	0.0403	1.5414	0.0000	3,825.1964	3,825.1964	0.1418	0.0000	3,828.1741
Total	**2.3164**	**8.8578**	**34.9776**	**0.1143**	**6.9474**	**0.2057**	**7.1531**	**1.8742**	**0.1896**	**2.0638**	**0.0000**	**7,836.7760**	**7,836.7760**	**0.1705**	**0.0000**	**7,840.3560**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.4364	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4909	44.4909	0.0136	0.0000	44.7771
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0410**	**0.4364**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4909**	**44.4909**	**0.0136**	**0.0000**	**44.7771**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	2.3000e-003	0.0241	6.0000e-005	8.8300e-003	3.0000e-005	8.8700e-003	2.2600e-003	3.0000e-005	2.3000e-003	0.0000	4.0604	4.0604	2.1000e-004	0.0000	4.0648
Total	**1.9200e-003**	**2.3000e-003**	**0.0241**	**6.0000e-005**	**8.8300e-003**	**3.0000e-005**	**8.8700e-003**	**2.2600e-003**	**3.0000e-005**	**2.3000e-003**	**0.0000**	**4.0604**	**4.0604**	**2.1000e-004**	**0.0000**	**4.0648**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.3491	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4908	44.4908	0.0136	0.0000	44.7771
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0410**	**0.3491**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4908**	**44.4908**	**0.0136**	**0.0000**	**44.7771**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	2.3000e-003	0.0241	6.0000e-005	8.8300e-003	3.0000e-005	8.8700e-003	2.2600e-003	3.0000e-005	2.3000e-003	0.0000	4.0604	4.0604	2.1000e-004	0.0000	4.0648
Total	**1.9200e-003**	**2.3000e-003**	**0.0241**	**6.0000e-005**	**8.8300e-003**	**3.0000e-005**	**8.8700e-003**	**2.2600e-003**	**3.0000e-005**	**2.3000e-003**	**0.0000**	**4.0604**	**4.0604**	**2.1000e-004**	**0.0000**	**4.0648**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0944	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2761
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8600e-003**	**0.0944**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2761**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	5.3000e-004	5.5500e-003	1.0000e-005	2.2600e-003	1.0000e-005	2.2700e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	0.9995	0.9995	5.0000e-005	0.0000	1.0005
Total	**4.4000e-004**	**5.3000e-004**	**5.5500e-003**	**1.0000e-005**	**2.2600e-003**	**1.0000e-005**	**2.2700e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**0.9995**	**0.9995**	**5.0000e-005**	**0.0000**	**1.0005**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0755	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2760
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8600e-003**	**0.0755**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2760**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	5.3000e-004	5.5500e-003	1.0000e-005	2.2600e-003	1.0000e-005	2.2700e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	0.9995	0.9995	5.0000e-005	0.0000	1.0005
Total	**4.4000e-004**	**5.3000e-004**	**5.5500e-003**	**1.0000e-005**	**2.2600e-003**	**1.0000e-005**	**2.2700e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**0.9995**	**0.9995**	**5.0000e-005**	**0.0000**	**1.0005**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.1907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.0470	0.0402	6.0000e-005		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	5.4895	5.4895	5.8000e-004	0.0000	5.5017
Total	**2.1978**	**0.0470**	**0.0402**	**6.0000e-005**		**3.7300e-003**	**3.7300e-003**		**3.7300e-003**	**3.7300e-003**	**0.0000**	**5.4895**	**5.4895**	**5.8000e-004**	**0.0000**	**5.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1057	0.1270	1.3293	3.1200e-003	0.2610	1.9200e-003	0.2629	0.0694	1.7700e-003	0.0712	0.0000	223.7303	223.7303	0.0114	0.0000	223.9688
Total	**0.1057**	**0.1270**	**1.3293**	**3.1200e-003**	**0.2610**	**1.9200e-003**	**0.2629**	**0.0694**	**1.7700e-003**	**0.0712**	**0.0000**	**223.7303**	**223.7303**	**0.0114**	**0.0000**	**223.9688**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.1907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.0376	0.0402	6.0000e-005		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	5.4895	5.4895	5.8000e-004	0.0000	5.5017
Total	**2.1978**	**0.0376**	**0.0402**	**6.0000e-005**		**3.7300e-003**	**3.7300e-003**		**3.7300e-003**	**3.7300e-003**	**0.0000**	**5.4895**	**5.4895**	**5.8000e-004**	**0.0000**	**5.5017**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1057	0.1270	1.3293	3.1200e-003	0.2610	1.9200e-003	0.2629	0.0694	1.7700e-003	0.0712	0.0000	223.7303	223.7303	0.0114	0.0000	223.9688
Total	**0.1057**	**0.1270**	**1.3293**	**3.1200e-003**	**0.2610**	**1.9200e-003**	**0.2629**	**0.0694**	**1.7700e-003**	**0.0712**	**0.0000**	**223.7303**	**223.7303**	**0.0114**	**0.0000**	**223.9688**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4071
Total	**0.5621**	**0.0110**	**0.0102**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.3000e-004**	**0.0000**	**1.4071**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0292	0.3055	8.0000e-004	0.0668	4.8000e-004	0.0673	0.0178	4.5000e-004	0.0182	0.0000	55.0698	55.0698	2.6700e-003	0.0000	55.1259
Total	**0.0241**	**0.0292**	**0.3055**	**8.0000e-004**	**0.0668**	**4.8000e-004**	**0.0673**	**0.0178**	**4.5000e-004**	**0.0182**	**0.0000**	**55.0698**	**55.0698**	**2.6700e-003**	**0.0000**	**55.1259**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	8.8300e-003	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4071
Total	**0.5621**	**8.8300e-003**	**0.0102**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.3000e-004**	**0.0000**	**1.4071**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0292	0.3055	8.0000e-004	0.0668	4.8000e-004	0.0673	0.0178	4.5000e-004	0.0182	0.0000	55.0698	55.0698	2.6700e-003	0.0000	55.1259
Total	**0.0241**	**0.0292**	**0.3055**	**8.0000e-004**	**0.0668**	**4.8000e-004**	**0.0673**	**0.0178**	**4.5000e-004**	**0.0182**	**0.0000**	**55.0698**	**55.0698**	**2.6700e-003**	**0.0000**	**55.1259**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	1.1165	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6495	113.6495	0.0278	0.0000	114.2335
Total	**0.1281**	**1.1165**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6495**	**113.6495**	**0.0278**	**0.0000**	**114.2335**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1152	7.9323	15.9687	0.0244	0.6702	0.1205	0.7907	0.1916	0.1108	0.3024	0.0000	2,139.8239	2,139.8239	0.0161	0.0000	2,140.1627
Worker	1.0526	1.2748	13.3295	0.0348	2.9130	0.0210	2.9340	0.7748	0.0194	0.7942	0.0000	2,402.4637	2,402.4637	0.1167	0.0000	2,404.9134
Total	**2.1679**	**9.2071**	**29.2982**	**0.0592**	**3.5831**	**0.1415**	**3.7247**	**0.9663**	**0.1302**	**1.0966**	**0.0000**	**4,542.2876**	**4,542.2876**	**0.1328**	**0.0000**	**4,545.0761**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	0.8932	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6493	113.6493	0.0278	0.0000	114.2334
Total	**0.1281**	**0.8932**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6493**	**113.6493**	**0.0278**	**0.0000**	**114.2334**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1152	7.9323	15.9687	0.0244	0.6702	0.1205	0.7907	0.1916	0.1108	0.3024	0.0000	2,139.8239	2,139.8239	0.0161	0.0000	2,140.1627
Worker	1.0526	1.2748	13.3295	0.0348	2.9130	0.0210	2.9340	0.7748	0.0194	0.7942	0.0000	2,402.4637	2,402.4637	0.1167	0.0000	2,404.9134
Total	**2.1679**	**9.2071**	**29.2982**	**0.0592**	**3.5831**	**0.1415**	**3.7247**	**0.9663**	**0.1302**	**1.0966**	**0.0000**	**4,542.2876**	**4,542.2876**	**0.1328**	**0.0000**	**4,545.0761**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.1888	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.1888**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	1.2225	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6275	162.6275	0.0392	0.0000	163.4503
Total	**0.1335**	**1.2225**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6275**	**162.6275**	**0.0392**	**0.0000**	**163.4503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1499	7.6858	19.4337	0.0357	0.9851	0.1316	1.1166	0.2817	0.1211	0.4027	0.0000	3,019.6204	3,019.6204	0.0221	0.0000	3,020.0850
Worker	1.2503	1.4805	15.7083	0.0509	4.2784	0.0306	4.3090	1.1379	0.0284	1.1663	0.0000	3,196.6091	3,196.6091	0.1434	0.0000	3,199.6209
Total	**2.4002**	**9.1663**	**35.1420**	**0.0865**	**5.2635**	**0.1622**	**5.4257**	**1.4196**	**0.1495**	**1.5691**	**0.0000**	**6,216.2295**	**6,216.2295**	**0.1656**	**0.0000**	**6,219.7059**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	0.9780	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6273	162.6273	0.0392	0.0000	163.4501
Total	**0.1335**	**0.9780**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6273**	**162.6273**	**0.0392**	**0.0000**	**163.4501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1499	7.6858	19.4337	0.0357	0.9851	0.1316	1.1166	0.2817	0.1211	0.4027	0.0000	3,019.6204	3,019.6204	0.0221	0.0000	3,020.0850
Worker	1.2503	1.4805	15.7083	0.0509	4.2784	0.0306	4.3090	1.1379	0.0284	1.1663	0.0000	3,196.6091	3,196.6091	0.1434	0.0000	3,199.6209
Total	**2.4002**	**9.1663**	**35.1420**	**0.0865**	**5.2635**	**0.1622**	**5.4257**	**1.4196**	**0.1495**	**1.5691**	**0.0000**	**6,216.2295**	**6,216.2295**	**0.1656**	**0.0000**	**6,219.7059**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.3165	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3265
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.3165**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.9100e-003	0.0202	7.0000e-005	0.0103	4.0000e-005	0.0103	2.6300e-003	4.0000e-005	2.6700e-003	0.0000	4.1155	4.1155	1.8000e-004	0.0000	4.1194
Total	**1.6100e-003**	**1.9100e-003**	**0.0202**	**7.0000e-005**	**0.0103**	**4.0000e-005**	**0.0103**	**2.6300e-003**	**4.0000e-005**	**2.6700e-003**	**0.0000**	**4.1155**	**4.1155**	**1.8000e-004**	**0.0000**	**4.1194**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.2532	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3264
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.2532**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3264**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.9100e-003	0.0202	7.0000e-005	0.0103	4.0000e-005	0.0103	2.6300e-003	4.0000e-005	2.6700e-003	0.0000	4.1155	4.1155	1.8000e-004	0.0000	4.1194
Total	**1.6100e-003**	**1.9100e-003**	**0.0202**	**7.0000e-005**	**0.0103**	**4.0000e-005**	**0.0103**	**2.6300e-003**	**4.0000e-005**	**2.6700e-003**	**0.0000**	**4.1155**	**4.1155**	**1.8000e-004**	**0.0000**	**4.1194**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0382	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**4.9974**	**0.0382**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0887	0.1050	1.1143	3.6100e-003	0.3035	2.1700e-003	0.3057	0.0807	2.0200e-003	0.0827	0.0000	226.7647	226.7647	0.0102	0.0000	226.9784
Total	**0.0887**	**0.1050**	**1.1143**	**3.6100e-003**	**0.3035**	**2.1700e-003**	**0.3057**	**0.0807**	**2.0200e-003**	**0.0827**	**0.0000**	**226.7647**	**226.7647**	**0.0102**	**0.0000**	**226.9784**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0305	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**4.9974**	**0.0305**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0887	0.1050	1.1143	3.6100e-003	0.3035	2.1700e-003	0.3057	0.0807	2.0200e-003	0.0827	0.0000	226.7647	226.7647	0.0102	0.0000	226.9784
Total	**0.0887**	**0.1050**	**1.1143**	**3.6100e-003**	**0.3035**	**2.1700e-003**	**0.3057**	**0.0807**	**2.0200e-003**	**0.0827**	**0.0000**	**226.7647**	**226.7647**	**0.0102**	**0.0000**	**226.9784**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.6532	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9086	215.9086	8.6700e-003	0.0000	216.0906
Total	**0.1076**	**0.6532**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9086**	**215.9086**	**8.6700e-003**	**0.0000**	**216.0906**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1104	6.7428	18.8182	0.0419	1.1564	0.1439	1.3003	0.3310	0.1324	0.4634	0.0000	3,558.6594	3,558.6594	0.0254	0.0000	3,559.1936
Worker	0.9445	1.1149	12.2103	0.0595	5.0067	0.0386	5.0452	1.3316	0.0358	1.3674	0.0000	3,393.3194	3,393.3194	0.1258	0.0000	3,395.9609
Total	**2.0549**	**7.8577**	**31.0285**	**0.1014**	**6.1630**	**0.1825**	**6.3455**	**1.6626**	**0.1682**	**1.8308**	**0.0000**	**6,951.9787**	**6,951.9787**	**0.1512**	**0.0000**	**6,955.1545**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.5226	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9083	215.9083	8.6700e-003	0.0000	216.0903
Total	**0.1076**	**0.5226**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9083**	**215.9083**	**8.6700e-003**	**0.0000**	**216.0903**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1104	6.7428	18.8182	0.0419	1.1564	0.1439	1.3003	0.3310	0.1324	0.4634	0.0000	3,558.6594	3,558.6594	0.0254	0.0000	3,559.1936
Worker	0.9445	1.1149	12.2103	0.0595	5.0067	0.0386	5.0452	1.3316	0.0358	1.3674	0.0000	3,393.3194	3,393.3194	0.1258	0.0000	3,395.9609
Total	**2.0549**	**7.8577**	**31.0285**	**0.1014**	**6.1630**	**0.1825**	**6.3455**	**1.6626**	**0.1682**	**1.8308**	**0.0000**	**6,951.9787**	**6,951.9787**	**0.1512**	**0.0000**	**6,955.1545**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7471	10.5792	29.5794	0.0661	1.8226	0.2270	2.0496	0.5218	0.2088	0.7306	0.0000	5,610.8731	5,610.8731	0.0401	0.0000	5,611.7158
Worker	1.4469	1.7188	18.8991	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1547	0.0000	5,330.7699	5,330.7699	0.1955	0.0000	5,334.8763
Total	**3.1940**	**12.2980**	**48.4784**	**0.1599**	**9.7119**	**0.2878**	**9.9997**	**2.6201**	**0.2653**	**2.8854**	**0.0000**	**10,941.6431**	**10,941.6431**	**0.2357**	**0.0000**	**10,946.5921**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8235	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8235**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7471	10.5792	29.5794	0.0661	1.8226	0.2270	2.0496	0.5218	0.2088	0.7306	0.0000	5,610.8731	5,610.8731	0.0401	0.0000	5,611.7158
Worker	1.4469	1.7188	18.8991	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1547	0.0000	5,330.7699	5,330.7699	0.1955	0.0000	5,334.8763
Total	**3.1940**	**12.2980**	**48.4784**	**0.1599**	**9.7119**	**0.2878**	**9.9997**	**2.6201**	**0.2653**	**2.8854**	**0.0000**	**10,941.6431**	**10,941.6431**	**0.2357**	**0.0000**	**10,946.5921**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7443	10.5386	29.4989	0.0662	1.8230	0.2271	2.0501	0.5220	0.2090	0.7309	0.0000	5,614.0778	5,614.0778	0.0402	0.0000	5,614.9213
Worker	1.4018	1.6861	18.5687	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1548	0.0000	5,316.9882	5,316.9882	0.1930	0.0000	5,321.0412
Total	**3.1461**	**12.2247**	**48.0677**	**0.1599**	**9.7123**	**0.2880**	**10.0003**	**2.6203**	**0.2654**	**2.8857**	**0.0000**	**10,931.0660**	**10,931.0660**	**0.2332**	**0.0000**	**10,935.9625**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8235	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8235**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7443	10.5386	29.4989	0.0662	1.8230	0.2271	2.0501	0.5220	0.2090	0.7309	0.0000	5,614.0778	5,614.0778	0.0402	0.0000	5,614.9213
Worker	1.4018	1.6861	18.5687	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1548	0.0000	5,316.9882	5,316.9882	0.1930	0.0000	5,321.0412
Total	**3.1461**	**12.2247**	**48.0677**	**0.1599**	**9.7123**	**0.2880**	**10.0003**	**2.6203**	**0.2654**	**2.8857**	**0.0000**	**10,931.0660**	**10,931.0660**	**0.2332**	**0.0000**	**10,935.9625**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2646	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8317	96.8317	3.6100e-003	0.0000	96.9075
Total	**0.0449**	**0.2646**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8317**	**96.8317**	**3.6100e-003**	**0.0000**	**96.9075**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4952	2.9890	8.3703	0.0188	0.5190	0.0647	0.5836	0.1486	0.0595	0.2081	0.0000	1,598.6445	1,598.6445	0.0114	0.0000	1,598.8847
Worker	0.3878	0.4726	5.2043	0.0267	2.2454	0.0173	2.2627	0.5972	0.0161	0.6133	0.0000	1,510.0539	1,510.0539	0.0543	0.0000	1,511.1944
Total	**0.8830**	**3.4617**	**13.5747**	**0.0455**	**2.7644**	**0.0820**	**2.8463**	**0.7458**	**0.0756**	**0.8214**	**0.0000**	**3,108.6983**	**3,108.6983**	**0.0658**	**0.0000**	**3,110.0791**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2117	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8316	96.8316	3.6100e-003	0.0000	96.9074
Total	**0.0449**	**0.2117**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8316**	**96.8316**	**3.6100e-003**	**0.0000**	**96.9074**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4952	2.9890	8.3703	0.0188	0.5190	0.0647	0.5836	0.1486	0.0595	0.2081	0.0000	1,598.6445	1,598.6445	0.0114	0.0000	1,598.8847
Worker	0.3878	0.4726	5.2043	0.0267	2.2454	0.0173	2.2627	0.5972	0.0161	0.6133	0.0000	1,510.0539	1,510.0539	0.0543	0.0000	1,511.1944
Total	**0.8830**	**3.4617**	**13.5747**	**0.0455**	**2.7644**	**0.0820**	**2.8463**	**0.7458**	**0.0756**	**0.8214**	**0.0000**	**3,108.6983**	**3,108.6983**	**0.0658**	**0.0000**	**3,110.0791**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2652	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6294	89.6294	4.2000e-003	0.0000	89.7176
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2652**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6294**	**89.6294**	**4.2000e-003**	**0.0000**	**89.7176**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.8600e-003	0.0204	1.0000e-004	0.0156	6.0000e-005	0.0157	4.0000e-003	6.0000e-005	4.0600e-003	0.0000	5.6746	5.6746	2.1000e-004	0.0000	5.6791
Total	**1.5800e-003**	**1.8600e-003**	**0.0204**	**1.0000e-004**	**0.0156**	**6.0000e-005**	**0.0157**	**4.0000e-003**	**6.0000e-005**	**4.0600e-003**	**0.0000**	**5.6746**	**5.6746**	**2.1000e-004**	**0.0000**	**5.6791**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2122	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6293	89.6293	4.2000e-003	0.0000	89.7175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2122**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6293**	**89.6293**	**4.2000e-003**	**0.0000**	**89.7175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.8600e-003	0.0204	1.0000e-004	0.0156	6.0000e-005	0.0157	4.0000e-003	6.0000e-005	4.0600e-003	0.0000	5.6746	5.6746	2.1000e-004	0.0000	5.6791
Total	**1.5800e-003**	**1.8600e-003**	**0.0204**	**1.0000e-004**	**0.0156**	**6.0000e-005**	**0.0157**	**4.0000e-003**	**6.0000e-005**	**4.0600e-003**	**0.0000**	**5.6746**	**5.6746**	**2.1000e-004**	**0.0000**	**5.6791**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.7748	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8122	261.8122	0.0123	0.0000	262.0699
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.7748**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8122**	**261.8122**	**0.0123**	**0.0000**	**262.0699**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4900e-003	5.3300e-003	0.0586	2.9000e-004	0.0456	1.9000e-004	0.0458	0.0117	1.8000e-004	0.0119	0.0000	16.5254	16.5254	6.1000e-004	0.0000	16.5382
Total	**4.4900e-003**	**5.3300e-003**	**0.0586**	**2.9000e-004**	**0.0456**	**1.9000e-004**	**0.0458**	**0.0117**	**1.8000e-004**	**0.0119**	**0.0000**	**16.5254**	**16.5254**	**6.1000e-004**	**0.0000**	**16.5382**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.6198	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8119	261.8119	0.0123	0.0000	262.0696
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.6198**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8119**	**261.8119**	**0.0123**	**0.0000**	**262.0696**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4900e-003	5.3300e-003	0.0586	2.9000e-004	0.0456	1.9000e-004	0.0458	0.0117	1.8000e-004	0.0119	0.0000	16.5254	16.5254	6.1000e-004	0.0000	16.5382
Total	**4.4900e-003**	**5.3300e-003**	**0.0586**	**2.9000e-004**	**0.0456**	**1.9000e-004**	**0.0458**	**0.0117**	**1.8000e-004**	**0.0119**	**0.0000**	**16.5254**	**16.5254**	**6.1000e-004**	**0.0000**	**16.5382**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0163	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**9.3236**	**0.0163**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0503	0.5526	2.7400e-003	0.2307	1.7800e-003	0.2324	0.0614	1.6500e-003	0.0630	0.0000	155.8602	155.8602	5.7200e-003	0.0000	155.9803
Total	**0.0423**	**0.0503**	**0.5526**	**2.7400e-003**	**0.2307**	**1.7800e-003**	**0.2324**	**0.0614**	**1.6500e-003**	**0.0630**	**0.0000**	**155.8602**	**155.8602**	**5.7200e-003**	**0.0000**	**155.9803**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0130	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**9.3236**	**0.0130**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0503	0.5526	2.7400e-003	0.2307	1.7800e-003	0.2324	0.0614	1.6500e-003	0.0630	0.0000	155.8602	155.8602	5.7200e-003	0.0000	155.9803
Total	**0.0423**	**0.0503**	**0.5526**	**2.7400e-003**	**0.2307**	**1.7800e-003**	**0.2324**	**0.0614**	**1.6500e-003**	**0.0630**	**0.0000**	**155.8602**	**155.8602**	**5.7200e-003**	**0.0000**	**155.9803**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	63.7762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**63.7932**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2804	0.3373	3.7147	0.0188	1.5782	0.0122	1.5904	0.4198	0.0113	0.4311	0.0000	1,063.6550	1,063.6550	0.0386	0.0000	1,064.4658
Total	**0.2804**	**0.3373**	**3.7147**	**0.0188**	**1.5782**	**0.0122**	**1.5904**	**0.4198**	**0.0113**	**0.4311**	**0.0000**	**1,063.6550**	**1,063.6550**	**0.0386**	**0.0000**	**1,064.4658**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	63.7762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.0891	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**63.7932**	**0.0891**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2804	0.3373	3.7147	0.0188	1.5782	0.0122	1.5904	0.4198	0.0113	0.4311	0.0000	1,063.6550	1,063.6550	0.0386	0.0000	1,064.4658
Total	**0.2804**	**0.3373**	**3.7147**	**0.0188**	**1.5782**	**0.0122**	**1.5904**	**0.4198**	**0.0113**	**0.4311**	**0.0000**	**1,063.6550**	**1,063.6550**	**0.0386**	**0.0000**	**1,064.4658**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.1149	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6538
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.1149**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.0920	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6537
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.0920**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0182	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**3.5486**	**0.0182**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0613	0.6753	3.4600e-003	0.2914	2.2500e-003	0.2936	0.0775	2.0900e-003	0.0796	0.0000	195.9463	195.9463	7.0500e-003	0.0000	196.0943
Total	**0.0503**	**0.0613**	**0.6753**	**3.4600e-003**	**0.2914**	**2.2500e-003**	**0.2936**	**0.0775**	**2.0900e-003**	**0.0796**	**0.0000**	**195.9463**	**195.9463**	**7.0500e-003**	**0.0000**	**196.0943**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0146	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**3.5486**	**0.0146**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0613	0.6753	3.4600e-003	0.2914	2.2500e-003	0.2936	0.0775	2.0900e-003	0.0796	0.0000	195.9463	195.9463	7.0500e-003	0.0000	196.0943
Total	**0.0503**	**0.0613**	**0.6753**	**3.4600e-003**	**0.2914**	**2.2500e-003**	**0.2936**	**0.0775**	**2.0900e-003**	**0.0796**	**0.0000**	**195.9463**	**195.9463**	**7.0500e-003**	**0.0000**	**196.0943**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	55.0202	81.9009	472.8398	1.6433	112.8160	1.8996	114.7156	30.2283	1.7552	31.9835	0.0000	104,567.9520	104,567.9520	2.9694	0.0000	104,630.3101
Unmitigated	55.0202	81.9009	472.8398	1.6433	112.8160	1.8996	114.7156	30.2283	1.7552	31.9835	0.0000	104,567.9520	104,567.9520	2.9694	0.0000	104,630.3101

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	46,390,536	46,390,536
Arena	19,444.70	19,444.70	19444.70	23,940,188	23,940,188
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	80,955,446	80,955,446
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,223,648	2,223,648
Hospital	30,319.32	30,319.32	30319.32	60,249,000	60,249,000
Hotel	8,987.00	8,987.00	8987.00	13,095,540	13,095,540
Strip Mall	53,395.00	53,395.00	53395.00	76,063,869	76,063,869
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	188,935.51	188,935.51	188,935.51	302,918,228	302,918,228

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.40	3.20	4.16	46.50	12.50	41.00	100	0	0
Arena	6.40	3.20	4.16	0.00	81.00	19.00	100	0	0
City Park	6.40	3.20	4.16	33.00	48.00	19.00	100	0	0
General Office Building	6.40	3.20	4.16	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	6.40	3.20	4.16	13.60	67.40	19.00	100	0	0
Hospital	6.40	3.20	4.16	64.90	16.10	19.00	100	0	0
Hotel	6.40	3.20	4.16	19.40	61.60	19.00	100	0	0
Strip Mall	6.40	3.20	4.16	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	6.40	3.20	4.16	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	39,447.6857	39,447.6857	1.9379	0.4010	39,612.6775
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	39,447.6857	39,447.6857	1.9379	0.4010	39,612.6775
NaturalGas Mitigated	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	12,169.2716	12,169.2716	0.2332	0.2231	12,243.3318
NaturalGas Unmitigated	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	12,169.2716	12,169.2716	0.2332	0.2231	12,243.3318

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.76106e+007	0.2567	2.3339	1.9604	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,540.6851	2,540.6851	0.0487	0.0466	2,556.1473
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Hotel	5.04875e+007	0.2722	2.4749	2.0789	0.0149		0.1881	0.1881		0.1881	0.1881	0.0000	2,694.2048	2,694.2048	0.0516	0.0494	2,710.6013
Strip Mall	4.04535e+006	0.0218	0.1983	0.1666	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.8753	215.8753	4.1400e-003	3.9600e-003	217.1891
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.7473e+007	0.2560	2.1875	0.9308	0.0140		0.1769	0.1769		0.1769	0.1769	0.0000	2,533.3379	2,533.3379	0.0486	0.0464	2,548.7554
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Total		**1.2296**	**11.0390**	**8.3661**	**0.0671**		**0.8496**	**0.8496**		**0.8496**	**0.8496**	**0.0000**	**12,169.2716**	**12,169.2716**	**0.2333**	**0.2231**	**12,243.3318**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.76106e+007	0.2567	2.3339	1.9604	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,540.6851	2,540.6851	0.0487	0.0466	2,556.1473
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Hotel	5.04875e+007	0.2722	2.4749	2.0789	0.0149		0.1881	0.1881		0.1881	0.1881	0.0000	2,694.2048	2,694.2048	0.0516	0.0494	2,710.6013
Strip Mall	4.04535e+006	0.0218	0.1983	0.1666	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.8753	215.8753	4.1400e-003	3.9600e-003	217.1891
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.7473e+007	0.2560	2.1875	0.9308	0.0140		0.1769	0.1769		0.1769	0.1769	0.0000	2,533.3379	2,533.3379	0.0486	0.0464	2,548.7554
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Total		**1.2296**	**11.0390**	**8.3661**	**0.0671**		**0.8496**	**0.8496**		**0.8496**	**0.8496**	**0.0000**	**12,169.2716**	**12,169.2716**	**0.2333**	**0.2231**	**12,243.3318**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.12266e+007	5,683.6422	0.2792	0.0578	5,707.4143
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	6.59644e+007	17,662.6244	0.8677	0.1795	17,736.4992
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.08419e+007	2,903.0284	0.1426	0.0295	2,915.1704
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**39,447.6857**	**1.9380**	**0.4010**	**39,612.6775**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.12266e+007	5,683.6422	0.2792	0.0578	5,707.4143
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	6.59644e+007	17,662.6244	0.8677	0.1795	17,736.4992
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.08419e+007	2,903.0284	0.1426	0.0295	2,915.1704
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**39,447.6857**	**1.9380**	**0.4010**	**39,612.6775**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Unmitigated	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.4158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.4704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8558	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Total	**79.7420**	**0.7126**	**61.7922**	**3.2800e-003**		**0.3436**	**0.3436**		**0.3436**	**0.3436**	**0.0000**	**101.3349**	**101.3349**	**0.0969**	**0.0000**	**103.3696**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.4158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.4704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8558	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Total	**79.7420**	**0.7126**	**61.7922**	**3.2800e-003**		**0.3436**	**0.3436**		**0.3436**	**0.3436**	**0.0000**	**101.3349**	**101.3349**	**0.0969**	**0.0000**	**103.3696**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3,568.3714	2.1409	1.2870	4,012.3031
Unmitigated	3,568.3714	2.1333	1.2854	4,011.6586

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	390.924 / 246.452	890.8230	0.5130	0.3084	997.2086
Arena	170.456 / 10.8802	297.9160	0.2192	0.1336	343.9251
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	807.444 / 494.885	1,826.7071	1.0590	0.6369	2,046.3886
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0175	0.0105	33.7913
Hospital	154.09 / 29.3505	287.6014	0.1991	0.1209	329.2696
Hotel	27.9034 / 3.10038	50.0050	0.0360	0.0219	57.5418
Strip Mall	67.0356 / 41.0864	151.6568	0.0879	0.0529	169.8952
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3,568.3714**	**2.1333**	**1.2855**	**4,011.6586**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	390.924 / 246.452	890.8230	0.5148	0.3088	997.3631
Arena	170.456 / 10.8802	297.9160	0.2200	0.1337	343.9924
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	807.444 / 494.885	1,826.7071	1.0627	0.6377	2,046.7076
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0176	0.0105	33.7966
Hospital	154.09 / 29.3505	287.6014	0.1998	0.1211	329.3305
Hotel	27.9034 / 3.10038	50.0050	0.0361	0.0219	57.5528
Strip Mall	67.0356 / 41.0864	151.6568	0.0882	0.0529	169.9217
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3,568.3714**	**2.1409**	**1.2870**	**4,012.3031**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4,833.0951	285.6277	0.0000	10,831.2775
Unmitigated	4,833.0951	285.6277	0.0000	10,831.2775

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2760	560.2551	33.1101	0.0000	1,255.5677
Arena	10.89	2.2106	0.1306	0.0000	4.9540
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	4224.99	857.6348	50.6848	0.0000	1,922.0148
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	950.25	192.8922	11.3996	0.0000	432.2838
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**4,833.0951**	**285.6277**	**0.0000**	**10,831.2775**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2760	560.2551	33.1101	0.0000	1,255.5677
Arena	10.89	2.2106	0.1306	0.0000	4.9540
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	4224.99	857.6348	50.6848	0.0000	1,922.0148
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	950.25	192.8922	11.3996	0.0000	432.2838
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**4,833.0951**	**285.6277**	**0.0000**	**10,831.2775**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - Non MLS Event - Adjusted

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P. Trip lengths were adjusted to match the VMT provided by F&P.

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	NumDays	9,300.00	272.00
tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65

tblEnergyUse	T24NG	34.77	26.08
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80

tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.42
tblVehicleTrips	HS_TL	5.00	3.40
tblVehicleTrips	HW_TL	10.00	6.80
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	73.00	100.00

tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	10.71	0.51
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	10.71	0.51
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	10.71	0.51
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69
tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.8324	27.9621	44.4212	0.0723	3.7405	0.7787	4.5191	1.2019	0.7171	1.9190	0.0000	6,265.5625	6,265.5625	0.3555	0.0000	6,273.0284
2017	15.6543	57.7002	167.7121	0.3048	18.0743	1.2132	19.2875	4.8735	1.1239	5.9974	0.0000	24,087.4906	24,087.4906	0.8784	0.0000	24,105.9372
2018	9.1336	38.5262	112.4833	0.2259	13.3938	0.7995	14.1933	3.6119	0.7410	4.3529	0.0000	17,382.9422	17,382.9422	0.6036	0.0000	17,395.6172
2019	11.3520	51.0536	153.2798	0.3278	19.4842	1.0545	20.5387	5.2548	0.9773	6.2321	0.0000	24,592.0982	24,592.0982	0.8242	0.0000	24,609.4070
2020	10.1374	45.0173	142.5231	0.3287	19.5596	0.9478	20.5074	5.2753	0.8786	6.1539	0.0000	23,916.6256	23,916.6256	0.7899	0.0000	23,933.2127
2021	12.3421	30.0808	105.0550	0.2564	15.3203	0.6756	15.9959	4.1307	0.6263	4.7570	0.0000	18,472.7854	18,472.7854	0.6103	0.0000	18,485.6023
2022	4.4651	17.2706	64.1824	0.1630	9.7064	0.3998	10.1062	2.6180	0.3705	2.9884	0.0000	11,673.9835	11,673.9835	0.3663	0.0000	11,681.6766
2023	4.2095	15.7333	61.1215	0.1630	9.7071	0.3714	10.0785	2.6182	0.3441	2.9623	0.0000	11,592.3170	11,592.3170	0.3541	0.0000	11,599.7535
2024	4.0963	15.4786	59.6252	0.1643	9.7824	0.3645	10.1470	2.6386	0.3375	2.9761	0.0000	11,616.2850	11,616.2850	0.3484	0.0000	11,623.6010
2025	3.9490	15.0692	57.6853	0.1637	9.7456	0.3532	10.0988	2.6287	0.3268	2.9556	0.0000	11,514.7500	11,514.7500	0.3400	0.0000	11,521.8896
2026	3.8511	14.8559	56.2896	0.1637	9.7461	0.3539	10.1000	2.6289	0.3275	2.9564	0.0000	11,466.7639	11,466.7639	0.3344	0.0000	11,473.7861
2027	3.7688	14.6802	55.1294	0.1638	9.7466	0.3549	10.1015	2.6291	0.3284	2.9575	0.0000	11,425.5615	11,425.5615	0.3294	0.0000	11,432.4792
2028	3.6681	14.4654	53.7682	0.1632	9.7097	0.3541	10.0638	2.6192	0.3277	2.9469	0.0000	11,346.1895	11,346.1895	0.3237	0.0000	11,352.9870
2029	3.6063	14.3809	53.0062	0.1638	9.7474	0.3560	10.1034	2.6295	0.3294	2.9588	0.0000	11,359.4405	11,359.4405	0.3206	0.0000	11,366.1733
2030	3.5338	13.6674	52.3305	0.1644	9.7478	0.3071	10.0549	2.6296	0.2846	2.9142	0.0000	11,374.4862	11,374.4862	0.2596	0.0000	11,379.9385

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2031	3.4759	13.5579	51.7136	0.1644	9.7483	0.3076	10.0558	2.6298	0.2850	2.9148	0.0000	11,354.5182	11,354.5182	0.2561	0.0000	11,359.8955
2032	4.6532	18.3722	69.4473	0.2223	13.1260	0.4265	13.5525	3.5409	0.3961	3.9369	0.0000	15,343.3552	15,343.3552	0.3446	0.0000	15,350.5908
2033	12.8843	14.1740	52.9435	0.1700	9.9881	0.3453	10.3334	2.6931	0.3226	3.0157	0.0000	11,720.9117	11,720.9117	0.2681	0.0000	11,726.5421
2034	67.3893	13.7027	54.1131	0.1830	11.2905	0.3220	11.6125	3.0400	0.2986	3.3386	0.0000	12,368.1329	12,368.1329	0.2868	0.0000	12,374.1552
2035	4.5545	3.9218	15.2725	0.0509	3.0656	0.0922	3.1578	0.8258	0.0856	0.9115	0.0000	3,467.7684	3,467.7684	0.0789	0.0000	3,469.4261
Total	**190.5567**	**449.6703**	**1,482.1028**	**3.7793**	**224.4303**	**10.1777**	**234.6080**	**60.7175**	**9.4284**	**70.1458**	**0.0000**	**272,341.9681**	**272,341.9681**	**8.2729**	**0.0000**	**272,515.6992**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.8323	25.8527	44.4212	0.0723	3.1944	0.7787	3.9731	0.9501	0.7171	1.6672	0.0000	6,265.5615	6,265.5615	0.3555	0.0000	6,273.0274
2017	15.6543	56.3440	167.7121	0.3048	18.0743	1.2132	19.2875	4.8735	1.1239	5.9974	0.0000	24,087.4899	24,087.4899	0.8784	0.0000	24,105.9365
2018	9.1336	37.6747	112.4833	0.2259	13.3938	0.7995	14.1933	3.6119	0.7410	4.3529	0.0000	17,382.9417	17,382.9417	0.6036	0.0000	17,395.6167
2019	11.3520	49.9592	153.2798	0.3278	19.4842	1.0545	20.5387	5.2548	0.9773	6.2321	0.0000	24,592.0975	24,592.0975	0.8242	0.0000	24,609.4063
2020	10.1374	44.0173	142.5231	0.3287	19.5596	0.9478	20.5074	5.2753	0.8786	6.1539	0.0000	23,916.6249	23,916.6249	0.7899	0.0000	23,933.2119
2021	12.3421	29.3128	105.0550	0.2564	15.3203	0.6756	15.9959	4.1307	0.6263	4.7570	0.0000	18,472.7847	18,472.7847	0.6103	0.0000	18,485.6016
2022	4.4651	16.8667	64.1824	0.1630	9.7064	0.3998	10.1062	2.6180	0.3705	2.9884	0.0000	11,673.9832	11,673.9832	0.3663	0.0000	11,681.6763

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	4.2095	15.3612	61.1215	0.1630	9.7071	0.3714	10.0785	2.6182	0.3441	2.9623	0.0000	11,592.3166	11,592.3166	0.3541	0.0000	11,599.7531
2024	4.0963	15.1282	59.6252	0.1643	9.7824	0.3645	10.1470	2.6386	0.3375	2.9761	0.0000	11,616.2847	11,616.2847	0.3484	0.0000	11,623.6006
2025	3.9490	14.7453	57.6853	0.1637	9.7456	0.3532	10.0988	2.6287	0.3268	2.9556	0.0000	11,514.7496	11,514.7496	0.3400	0.0000	11,521.8893
2026	3.8511	14.5320	56.2896	0.1637	9.7461	0.3539	10.1000	2.6289	0.3275	2.9564	0.0000	11,466.7636	11,466.7636	0.3344	0.0000	11,473.7857
2027	3.7688	14.3563	55.1294	0.1638	9.7466	0.3549	10.1015	2.6291	0.3284	2.9575	0.0000	11,425.5612	11,425.5612	0.3294	0.0000	11,432.4789
2028	3.6681	14.1428	53.7682	0.1632	9.7097	0.3541	10.0638	2.6192	0.3277	2.9469	0.0000	11,346.1891	11,346.1891	0.3237	0.0000	11,352.9866
2029	3.6063	14.0570	53.0062	0.1638	9.7474	0.3560	10.1034	2.6295	0.3294	2.9588	0.0000	11,359.4402	11,359.4402	0.3206	0.0000	11,366.1730
2030	3.5338	13.4607	52.3305	0.1644	9.7478	0.3071	10.0549	2.6296	0.2846	2.9142	0.0000	11,374.4858	11,374.4858	0.2596	0.0000	11,379.9381
2031	3.4759	13.3512	51.7136	0.1644	9.7483	0.3076	10.0558	2.6298	0.2850	2.9148	0.0000	11,354.5178	11,354.5178	0.2561	0.0000	11,359.8951
2032	4.6532	18.0412	69.4473	0.2223	13.1260	0.4265	13.5525	3.5409	0.3961	3.9369	0.0000	15,343.3546	15,343.3546	0.3446	0.0000	15,350.5901
2033	12.8843	13.8099	52.9435	0.1700	9.9881	0.3453	10.3334	2.6931	0.3226	3.0157	0.0000	11,720.9109	11,720.9109	0.2681	0.0000	11,726.5414
2034	67.3893	13.4745	54.1131	0.1830	11.2905	0.3220	11.6125	3.0400	0.2986	3.3386	0.0000	12,368.1324	12,368.1324	0.2868	0.0000	12,374.1548
2035	4.5545	3.8423	15.2725	0.0509	3.0656	0.0922	3.1578	0.8258	0.0856	0.9115	0.0000	3,467.7682	3,467.7682	0.0789	0.0000	3,469.4259
Total	**190.5567**	**438.3300**	**1,482.1027**	**3.7793**	**223.8842**	**10.1777**	**234.0620**	**60.4657**	**9.4284**	**69.8941**	**0.0000**	**272,341.9581**	**272,341.9581**	**8.2729**	**0.0000**	**272,515.6892**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.52**	**0.00**	**0.00**	**0.24**	**0.00**	**0.23**	**0.41**	**0.00**	**0.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Energy	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	51,616.9573	51,616.9573	2.1712	0.6241	51,856.0093
Mobile	50.3309	78.0720	446.8260	1.6024	110.4920	1.8293	112.3213	29.6056	1.6901	31.2957	0.0000	101,967.1440	101,967.1440	2.8797	0.0000	102,027.6170
Waste						0.0000	0.0000		0.0000	0.0000	4,833.0951	0.0000	4,833.0951	285.6277	0.0000	10,831.2775
Water						0.0000	0.0000		0.0000	0.0000	577.1164	2,991.2551	3,568.3714	2.1333	1.2854	4,011.6586
Total	**131.3025**	**89.8236**	**516.9844**	**1.6728**	**110.4920**	**3.0225**	**113.5145**	**29.6056**	**2.8833**	**32.4889**	**5,410.2114**	**156,676.6913**	**162,086.9027**	**292.9088**	**1.9095**	**168,829.9320**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Energy	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	51,616.9573	51,616.9573	2.1712	0.6241	51,856.0093
Mobile	50.3309	78.0720	446.8260	1.6024	110.4920	1.8293	112.3213	29.6056	1.6901	31.2957	0.0000	101,967.1440	101,967.1440	2.8797	0.0000	102,027.6170
Waste						0.0000	0.0000		0.0000	0.0000	4,833.0951	0.0000	4,833.0951	285.6277	0.0000	10,831.2775
Water						0.0000	0.0000		0.0000	0.0000	577.1164	2,991.2551	3,568.3714	2.1409	1.2870	4,012.3031
Total	**131.3025**	**89.8236**	**516.9844**	**1.6728**	**110.4920**	**3.0225**	**113.5145**	**29.6056**	**2.8833**	**32.4889**	**5,410.2114**	**156,676.6913**	**162,086.9027**	**292.9164**	**1.9111**	**168,830.5765**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40

Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45
Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74

Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9928	0.0000	0.9928	0.4577	0.0000	0.4577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	9.7632	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4542	759.4542	0.2291	0.0000	764.2649
Total	**0.8456**	**9.7632**	**6.4124**	**8.0500e-003**	**0.9928**	**0.4677**	**1.4606**	**0.4577**	**0.4303**	**0.8880**	**0.0000**	**759.4542**	**759.4542**	**0.2291**	**0.0000**	**764.2649**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4468	0.0000	0.4468	0.2060	0.0000	0.2060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	7.8105	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4533	759.4533	0.2291	0.0000	764.2640
Total	**0.8456**	**7.8105**	**6.4124**	**8.0500e-003**	**0.4468**	**0.4677**	**0.9145**	**0.2060**	**0.4303**	**0.6363**	**0.0000**	**759.4533**	**759.4533**	**0.2291**	**0.0000**	**764.2640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.7839	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9391
Total	**0.0937**	**0.7839**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8993	5.6999	11.0923	0.0141	0.3839	0.0892	0.4731	0.1098	0.0819	0.1917	0.0000	1,270.4093	1,270.4093	0.0102	0.0000	1,270.6226
Worker	0.7620	0.9092	9.5289	0.0200	1.6689	0.0127	1.6816	0.4439	0.0117	0.4555	0.0000	1,489.4080	1,489.4080	0.0796	0.0000	1,491.0799
Total	**1.6613**	**6.6091**	**20.6212**	**0.0340**	**2.0528**	**0.1019**	**2.1547**	**0.5536**	**0.0936**	**0.6472**	**0.0000**	**2,759.8173**	**2,759.8173**	**0.0898**	**0.0000**	**2,761.7025**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0937	0.6271	0.5089	7.4000e-004		0.0541	0.0541		0.0508	0.0508	0.0000	66.5922	66.5922	0.0165	0.0000	66.9390
Total	**0.0937**	**0.6271**	**0.5089**	**7.4000e-004**		**0.0541**	**0.0541**		**0.0508**	**0.0508**	**0.0000**	**66.5922**	**66.5922**	**0.0165**	**0.0000**	**66.9390**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8993	5.6999	11.0923	0.0141	0.3839	0.0892	0.4731	0.1098	0.0819	0.1917	0.0000	1,270.4093	1,270.4093	0.0102	0.0000	1,270.6226
Worker	0.7620	0.9092	9.5289	0.0200	1.6689	0.0127	1.6816	0.4439	0.0117	0.4555	0.0000	1,489.4080	1,489.4080	0.0796	0.0000	1,491.0799
Total	**1.6613**	**6.6091**	**20.6212**	**0.0340**	**2.0528**	**0.1019**	**2.1547**	**0.5536**	**0.0936**	**0.6472**	**0.0000**	**2,759.8173**	**2,759.8173**	**0.0898**	**0.0000**	**2,761.7025**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3366	2.8650	1.9670	2.9100e-003		0.1933	0.1933		0.1815	0.1815	0.0000	259.8348	259.8348	0.0640	0.0000	261.1778
Total	**0.3366**	**2.8650**	**1.9670**	**2.9100e-003**		**0.1933**	**0.1933**		**0.1815**	**0.1815**	**0.0000**	**259.8348**	**259.8348**	**0.0640**	**0.0000**	**261.1778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0512	19.9031	40.0187	0.0553	1.5152	0.2965	1.8117	0.4332	0.2724	0.7056	0.0000	4,927.9197	4,927.9197	0.0374	0.0000	4,928.7049
Worker	2.6663	3.2026	33.5330	0.0787	6.5845	0.0484	6.6329	1.7513	0.0447	1.7959	0.0000	5,643.9208	5,643.9208	0.2866	0.0000	5,649.9383
Total	**5.7175**	**23.1057**	**73.5517**	**0.1341**	**8.0997**	**0.3449**	**8.4447**	**2.1845**	**0.3170**	**2.5015**	**0.0000**	**10,571.8405**	**10,571.8405**	**0.3239**	**0.0000**	**10,578.6432**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3366	2.2920	1.9670	2.9100e-003		0.1933	0.1933		0.1815	0.1815	0.0000	259.8345	259.8345	0.0640	0.0000	261.1775
Total	**0.3366**	**2.2920**	**1.9670**	**2.9100e-003**		**0.1933**	**0.1933**		**0.1815**	**0.1815**	**0.0000**	**259.8345**	**259.8345**	**0.0640**	**0.0000**	**261.1775**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0512	19.9031	40.0187	0.0553	1.5152	0.2965	1.8117	0.4332	0.2724	0.7056	0.0000	4,927.9197	4,927.9197	0.0374	0.0000	4,928.7049
Worker	2.6663	3.2026	33.5330	0.0787	6.5845	0.0484	6.6329	1.7513	0.0447	1.7959	0.0000	5,643.9208	5,643.9208	0.2866	0.0000	5,649.9383
Total	**5.7175**	**23.1057**	**73.5517**	**0.1341**	**8.0997**	**0.3449**	**8.4447**	**2.1845**	**0.3170**	**2.5015**	**0.0000**	**10,571.8405**	**10,571.8405**	**0.3239**	**0.0000**	**10,578.6432**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
Total	**0.4033**	**3.4327**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3228**	**311.3228**	**0.0766**	**0.0000**	**312.9319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6558	23.8470	47.9487	0.0663	1.8155	0.3553	2.1707	0.5190	0.3263	0.8454	0.0000	5,904.4199	5,904.4199	0.0448	0.0000	5,905.3607
Worker	3.1947	3.8372	40.1778	0.0943	7.8893	0.0580	7.9473	2.0983	0.0535	2.1518	0.0000	6,762.3015	6,762.3015	0.3433	0.0000	6,769.5114
Total	**6.8505**	**27.6842**	**88.1264**	**0.1606**	**9.7047**	**0.4133**	**10.1180**	**2.6173**	**0.3798**	**2.9972**	**0.0000**	**12,666.7214**	**12,666.7214**	**0.3881**	**0.0000**	**12,674.8720**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	2.7462	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
Total	**0.4033**	**2.7462**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3225**	**311.3225**	**0.0766**	**0.0000**	**312.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6558	23.8470	47.9487	0.0663	1.8155	0.3553	2.1707	0.5190	0.3263	0.8454	0.0000	5,904.4199	5,904.4199	0.0448	0.0000	5,905.3607
Worker	3.1947	3.8372	40.1778	0.0943	7.8893	0.0580	7.9473	2.0983	0.0535	2.1518	0.0000	6,762.3015	6,762.3015	0.3433	0.0000	6,769.5114
Total	**6.8505**	**27.6842**	**88.1264**	**0.1606**	**9.7047**	**0.4133**	**10.1180**	**2.6173**	**0.3798**	**2.9972**	**0.0000**	**12,666.7214**	**12,666.7214**	**0.3881**	**0.0000**	**12,674.8720**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0321	21.5660	43.4150	0.0663	1.8220	0.3277	2.1497	0.5209	0.3012	0.8221	0.0000	5,817.6462	5,817.6462	0.0439	0.0000	5,818.5674
Worker	2.8618	3.4659	36.2395	0.0946	7.9196	0.0571	7.9767	2.1064	0.0528	2.1592	0.0000	6,531.6982	6,531.6982	0.3171	0.0000	6,538.3583
Total	**5.8939**	**25.0319**	**79.6545**	**0.1609**	**9.7416**	**0.3848**	**10.1264**	**2.6272**	**0.3540**	**2.9813**	**0.0000**	**12,349.3444**	**12,349.3444**	**0.3610**	**0.0000**	**12,356.9257**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	2.4284	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**2.4284**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0321	21.5660	43.4150	0.0663	1.8220	0.3277	2.1497	0.5209	0.3012	0.8221	0.0000	5,817.6462	5,817.6462	0.0439	0.0000	5,818.5674
Worker	2.8618	3.4659	36.2395	0.0946	7.9196	0.0571	7.9767	2.1064	0.0528	2.1592	0.0000	6,531.6982	6,531.6982	0.3171	0.0000	6,538.3583
Total	**5.8939**	**25.0319**	**79.6545**	**0.1609**	**9.7416**	**0.3848**	**10.1264**	**2.6272**	**0.3540**	**2.9813**	**0.0000**	**12,349.3444**	**12,349.3444**	**0.3610**	**0.0000**	**12,356.9257**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.1888	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.1888**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	2.2629	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0339	301.0339	0.0725	0.0000	302.5568
Total	**0.2471**	**2.2629**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0339**	**301.0339**	**0.0725**	**0.0000**	**302.5568**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1285	14.2270	35.9730	0.0660	1.8234	0.2436	2.0670	0.5214	0.2241	0.7455	0.0000	5,589.5100	5,589.5100	0.0410	0.0000	5,590.3701
Worker	2.3144	2.7405	29.0771	0.0941	7.9196	0.0567	7.9763	2.1064	0.0526	2.1589	0.0000	5,917.1275	5,917.1275	0.2655	0.0000	5,922.7025
Total	**4.4429**	**16.9675**	**65.0501**	**0.1602**	**9.7430**	**0.3003**	**10.0433**	**2.6278**	**0.2767**	**2.9044**	**0.0000**	**11,506.6375**	**11,506.6375**	**0.3064**	**0.0000**	**11,513.0727**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	1.8103	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0335	301.0335	0.0725	0.0000	302.5565
Total	**0.2471**	**1.8103**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0335**	**301.0335**	**0.0725**	**0.0000**	**302.5565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1285	14.2270	35.9730	0.0660	1.8234	0.2436	2.0670	0.5214	0.2241	0.7455	0.0000	5,589.5100	5,589.5100	0.0410	0.0000	5,590.3701
Worker	2.3144	2.7405	29.0771	0.0941	7.9196	0.0567	7.9763	2.1064	0.0526	2.1589	0.0000	5,917.1275	5,917.1275	0.2655	0.0000	5,922.7025
Total	**4.4429**	**16.9675**	**65.0501**	**0.1602**	**9.7430**	**0.3003**	**10.0433**	**2.6278**	**0.2767**	**2.9044**	**0.0000**	**11,506.6375**	**11,506.6375**	**0.3064**	**0.0000**	**11,513.0727**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	2.0197	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9946	299.9946	0.0718	0.0000	301.5017
Total	**0.2209**	**2.0197**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9946**	**299.9946**	**0.0718**	**0.0000**	**301.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0605	12.6866	34.7925	0.0658	1.8171	0.2383	2.0554	0.5197	0.2192	0.7389	0.0000	5,570.3394	5,570.3394	0.0415	0.0000	5,571.2098
Worker	2.1837	2.5643	27.2673	0.0938	7.8893	0.0568	7.9461	2.0983	0.0527	2.1510	0.0000	5,803.6495	5,803.6495	0.2531	0.0000	5,808.9651
Total	**4.2442**	**15.2509**	**62.0598**	**0.1595**	**9.7064**	**0.2951**	**10.0015**	**2.6180**	**0.2719**	**2.8899**	**0.0000**	**11,373.9889**	**11,373.9889**	**0.2946**	**0.0000**	**11,380.1749**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	1.6158	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9943	299.9943	0.0718	0.0000	301.5013
Total	**0.2209**	**1.6158**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9943**	**299.9943**	**0.0718**	**0.0000**	**301.5013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0605	12.6866	34.7925	0.0658	1.8171	0.2383	2.0554	0.5197	0.2192	0.7389	0.0000	5,570.3394	5,570.3394	0.0415	0.0000	5,571.2098
Worker	2.1837	2.5643	27.2673	0.0938	7.8893	0.0568	7.9461	2.0983	0.0527	2.1510	0.0000	5,803.6495	5,803.6495	0.2531	0.0000	5,808.9651
Total	**4.2442**	**15.2509**	**62.0598**	**0.1595**	**9.7064**	**0.2951**	**10.0015**	**2.6180**	**0.2719**	**2.8899**	**0.0000**	**11,373.9889**	**11,373.9889**	**0.2946**	**0.0000**	**11,380.1749**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.8606	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0980	300.0980	0.0713	0.0000	301.5949
Total	**0.2036**	**1.8606**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0980**	**300.0980**	**0.0713**	**0.0000**	**301.5949**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9304	11.4506	33.2313	0.0657	1.8178	0.2236	2.0414	0.5199	0.2058	0.7257	0.0000	5,569.4498	5,569.4498	0.0394	0.0000	5,570.2762
Worker	2.0755	2.4220	25.7830	0.0938	7.8893	0.0572	7.9465	2.0983	0.0531	2.1514	0.0000	5,722.7692	5,722.7692	0.2435	0.0000	5,727.8824
Total	**4.0059**	**13.8727**	**59.0143**	**0.1595**	**9.7071**	**0.2809**	**9.9879**	**2.6182**	**0.2588**	**2.8770**	**0.0000**	**11,292.2190**	**11,292.2190**	**0.2828**	**0.0000**	**11,298.1586**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.4885	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0976	300.0976	0.0713	0.0000	301.5946
Total	**0.2036**	**1.4885**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0976**	**300.0976**	**0.0713**	**0.0000**	**301.5946**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9304	11.4506	33.2313	0.0657	1.8178	0.2236	2.0414	0.5199	0.2058	0.7257	0.0000	5,569.4498	5,569.4498	0.0394	0.0000	5,570.2762
Worker	2.0755	2.4220	25.7830	0.0938	7.8893	0.0572	7.9465	2.0983	0.0531	2.1514	0.0000	5,722.7692	5,722.7692	0.2435	0.0000	5,727.8824
Total	**4.0059**	**13.8727**	**59.0143**	**0.1595**	**9.7071**	**0.2809**	**9.9879**	**2.6182**	**0.2588**	**2.8770**	**0.0000**	**11,292.2190**	**11,292.2190**	**0.2828**	**0.0000**	**11,298.1586**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.7524	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4646	302.4646	0.0714	0.0000	303.9643
Total	**0.1920**	**1.7524**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4646**	**302.4646**	**0.0714**	**0.0000**	**303.9643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9088	11.4069	32.7656	0.0663	1.8325	0.2265	2.0589	0.5242	0.2083	0.7325	0.0000	5,618.7776	5,618.7776	0.0398	0.0000	5,619.6141
Worker	1.9955	2.3193	24.7462	0.0945	7.9500	0.0581	8.0080	2.1144	0.0539	2.1683	0.0000	5,695.0429	5,695.0429	0.2371	0.0000	5,700.0227
Total	**3.9043**	**13.7262**	**57.5117**	**0.1608**	**9.7824**	**0.2845**	**10.0670**	**2.6386**	**0.2622**	**2.9009**	**0.0000**	**11,313.8205**	**11,313.8205**	**0.2770**	**0.0000**	**11,319.6367**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.4020	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4642	302.4642	0.0714	0.0000	303.9639
Total	**0.1920**	**1.4020**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4642**	**302.4642**	**0.0714**	**0.0000**	**303.9639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9088	11.4069	32.7656	0.0663	1.8325	0.2265	2.0589	0.5242	0.2083	0.7325	0.0000	5,618.7776	5,618.7776	0.0398	0.0000	5,619.6141
Worker	1.9955	2.3193	24.7462	0.0945	7.9500	0.0581	8.0080	2.1144	0.0539	2.1683	0.0000	5,695.0429	5,695.0429	0.2371	0.0000	5,700.0227
Total	**3.9043**	**13.7262**	**57.5117**	**0.1608**	**9.7824**	**0.2845**	**10.0670**	**2.6386**	**0.2622**	**2.9009**	**0.0000**	**11,313.8205**	**11,313.8205**	**0.2770**	**0.0000**	**11,319.6367**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8628	11.2398	31.9516	0.0661	1.8260	0.2263	2.0523	0.5224	0.2082	0.7306	0.0000	5,602.1427	5,602.1427	0.0398	0.0000	5,602.9788
Worker	1.9085	2.2100	23.6390	0.0941	7.9196	0.0584	7.9780	2.1064	0.0542	2.1605	0.0000	5,611.2054	5,611.2054	0.2294	0.0000	5,616.0234
Total	**3.7713**	**13.4497**	**55.5906**	**0.1602**	**9.7456**	**0.2847**	**10.0303**	**2.6288**	**0.2624**	**2.8911**	**0.0000**	**11,213.3481**	**11,213.3481**	**0.2692**	**0.0000**	**11,219.0022**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8628	11.2398	31.9516	0.0661	1.8260	0.2263	2.0523	0.5224	0.2082	0.7306	0.0000	5,602.1427	5,602.1427	0.0398	0.0000	5,602.9788
Worker	1.9085	2.2100	23.6390	0.0941	7.9196	0.0584	7.9780	2.1064	0.0542	2.1605	0.0000	5,611.2054	5,611.2054	0.2294	0.0000	5,616.0234
Total	**3.7713**	**13.4497**	**55.5906**	**0.1602**	**9.7456**	**0.2847**	**10.0303**	**2.6288**	**0.2624**	**2.8911**	**0.0000**	**11,213.3481**	**11,213.3481**	**0.2692**	**0.0000**	**11,219.0022**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8345	11.1103	31.3996	0.0661	1.8265	0.2264	2.0528	0.5226	0.2083	0.7308	0.0000	5,607.1373	5,607.1373	0.0399	0.0000	5,607.9746
Worker	1.8389	2.1262	22.7952	0.0941	7.9196	0.0590	7.9786	2.1064	0.0548	2.1611	0.0000	5,558.2248	5,558.2248	0.2238	0.0000	5,562.9240
Total	**3.6734**	**13.2365**	**54.1948**	**0.1602**	**9.7461**	**0.2854**	**10.0315**	**2.6289**	**0.2630**	**2.8919**	**0.0000**	**11,165.3621**	**11,165.3621**	**0.2636**	**0.0000**	**11,170.8986**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8345	11.1103	31.3996	0.0661	1.8265	0.2264	2.0528	0.5226	0.2083	0.7308	0.0000	5,607.1373	5,607.1373	0.0399	0.0000	5,607.9746
Worker	1.8389	2.1262	22.7952	0.0941	7.9196	0.0590	7.9786	2.1064	0.0548	2.1611	0.0000	5,558.2248	5,558.2248	0.2238	0.0000	5,562.9240
Total	**3.6734**	**13.2365**	**54.1948**	**0.1602**	**9.7461**	**0.2854**	**10.0315**	**2.6289**	**0.2630**	**2.8919**	**0.0000**	**11,165.3621**	**11,165.3621**	**0.2636**	**0.0000**	**11,170.8986**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8177	11.0089	30.9845	0.0662	1.8270	0.2268	2.0538	0.5228	0.2087	0.7314	0.0000	5,611.7734	5,611.7734	0.0400	0.0000	5,612.6129
Worker	1.7735	2.0519	22.0501	0.0941	7.9196	0.0596	7.9792	2.1064	0.0553	2.1616	0.0000	5,512.3863	5,512.3863	0.2187	0.0000	5,516.9789
Total	**3.5911**	**13.0608**	**53.0347**	**0.1603**	**9.7466**	**0.2864**	**10.0330**	**2.6291**	**0.2639**	**2.8931**	**0.0000**	**11,124.1596**	**11,124.1596**	**0.2587**	**0.0000**	**11,129.5918**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8177	11.0089	30.9845	0.0662	1.8270	0.2268	2.0538	0.5228	0.2087	0.7314	0.0000	5,611.7734	5,611.7734	0.0400	0.0000	5,612.6129
Worker	1.7735	2.0519	22.0501	0.0941	7.9196	0.0596	7.9792	2.1064	0.0553	2.1616	0.0000	5,512.3863	5,512.3863	0.2187	0.0000	5,516.9789
Total	**3.5911**	**13.0608**	**53.0347**	**0.1603**	**9.7466**	**0.2864**	**10.0330**	**2.6291**	**0.2639**	**2.8931**	**0.0000**	**11,124.1596**	**11,124.1596**	**0.2587**	**0.0000**	**11,129.5918**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2471	300.2471	0.0705	0.0000	301.7269
Total	**0.1770**	**1.6133**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2471**	**300.2471**	**0.0705**	**0.0000**	**301.7269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7846	10.8745	30.3637	0.0660	1.8204	0.2261	2.0465	0.5209	0.2080	0.7289	0.0000	5,593.7647	5,593.7647	0.0399	0.0000	5,594.6022
Worker	1.7065	1.9777	21.3178	0.0937	7.8893	0.0598	7.9491	2.0983	0.0555	2.1538	0.0000	5,452.1777	5,452.1777	0.2133	0.0000	5,456.6579
Total	**3.4911**	**12.8522**	**51.6815**	**0.1597**	**9.7097**	**0.2859**	**9.9955**	**2.6192**	**0.2635**	**2.8827**	**0.0000**	**11,045.9424**	**11,045.9424**	**0.2532**	**0.0000**	**11,051.2600**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.2906	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2467	300.2467	0.0705	0.0000	301.7266
Total	**0.1770**	**1.2906**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2467**	**300.2467**	**0.0705**	**0.0000**	**301.7266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7846	10.8745	30.3637	0.0660	1.8204	0.2261	2.0465	0.5209	0.2080	0.7289	0.0000	5,593.7647	5,593.7647	0.0399	0.0000	5,594.6022
Worker	1.7065	1.9777	21.3178	0.0937	7.8893	0.0598	7.9491	2.0983	0.0555	2.1538	0.0000	5,452.1777	5,452.1777	0.2133	0.0000	5,456.6579
Total	**3.4911**	**12.8522**	**51.6815**	**0.1597**	**9.7097**	**0.2859**	**9.9955**	**2.6192**	**0.2635**	**2.8827**	**0.0000**	**11,045.9424**	**11,045.9424**	**0.2532**	**0.0000**	**11,051.2600**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7756	10.8398	30.1371	0.0662	1.8278	0.2270	2.0549	0.5231	0.2089	0.7320	0.0000	5,618.4885	5,618.4885	0.0401	0.0000	5,619.3302
Worker	1.6530	1.9216	20.7744	0.0941	7.9196	0.0604	7.9800	2.1064	0.0561	2.1624	0.0000	5,439.5501	5,439.5501	0.2098	0.0000	5,443.9557
Total	**3.4286**	**12.7614**	**50.9115**	**0.1603**	**9.7474**	**0.2874**	**10.0349**	**2.6295**	**0.2649**	**2.8944**	**0.0000**	**11,058.0386**	**11,058.0386**	**0.2499**	**0.0000**	**11,063.2859**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7756	10.8398	30.1371	0.0662	1.8278	0.2270	2.0549	0.5231	0.2089	0.7320	0.0000	5,618.4885	5,618.4885	0.0401	0.0000	5,619.3302
Worker	1.6530	1.9216	20.7744	0.0941	7.9196	0.0604	7.9800	2.1064	0.0561	2.1624	0.0000	5,439.5501	5,439.5501	0.2098	0.0000	5,443.9557
Total	**3.4286**	**12.7614**	**50.9115**	**0.1603**	**9.7474**	**0.2874**	**10.0349**	**2.6295**	**0.2649**	**2.8944**	**0.0000**	**11,058.0386**	**11,058.0386**	**0.2499**	**0.0000**	**11,063.2859**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7674	10.7703	29.9954	0.0663	1.8282	0.2272	2.0554	0.5233	0.2090	0.7322	0.0000	5,621.8180	5,621.8180	0.0401	0.0000	5,622.6608
Worker	1.5962	1.8638	20.2299	0.0941	7.9196	0.0607	7.9803	2.1064	0.0563	2.1627	0.0000	5,411.1401	5,411.1401	0.2058	0.0000	5,415.4617
Total	**3.3636**	**12.6341**	**50.2254**	**0.1604**	**9.7478**	**0.2879**	**10.0357**	**2.6296**	**0.2653**	**2.8949**	**0.0000**	**11,032.9581**	**11,032.9581**	**0.2459**	**0.0000**	**11,038.1225**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7674	10.7703	29.9954	0.0663	1.8282	0.2272	2.0554	0.5233	0.2090	0.7322	0.0000	5,621.8180	5,621.8180	0.0401	0.0000	5,622.6608
Worker	1.5962	1.8638	20.2299	0.0941	7.9196	0.0607	7.9803	2.1064	0.0563	2.1627	0.0000	5,411.1401	5,411.1401	0.2058	0.0000	5,415.4617
Total	**3.3636**	**12.6341**	**50.2254**	**0.1604**	**9.7478**	**0.2879**	**10.0357**	**2.6296**	**0.2653**	**2.8949**	**0.0000**	**11,032.9581**	**11,032.9581**	**0.2459**	**0.0000**	**11,038.1225**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7628	10.7146	29.8732	0.0663	1.8287	0.2274	2.0561	0.5234	0.2092	0.7327	0.0000	5,625.6074	5,625.6074	0.0402	0.0000	5,626.4513
Worker	1.5429	1.8100	19.7353	0.0941	7.9196	0.0609	7.9805	2.1064	0.0565	2.1628	0.0000	5,387.3827	5,387.3827	0.2022	0.0000	5,391.6281
Total	**3.3057**	**12.5246**	**49.6085**	**0.1604**	**9.7483**	**0.2883**	**10.0366**	**2.6298**	**0.2657**	**2.8955**	**0.0000**	**11,012.9901**	**11,012.9901**	**0.2424**	**0.0000**	**11,018.0795**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7628	10.7146	29.8732	0.0663	1.8287	0.2274	2.0561	0.5234	0.2092	0.7327	0.0000	5,625.6074	5,625.6074	0.0402	0.0000	5,626.4513
Worker	1.5429	1.8100	19.7353	0.0941	7.9196	0.0609	7.9805	2.1064	0.0565	2.1628	0.0000	5,387.3827	5,387.3827	0.2022	0.0000	5,391.6281
Total	**3.3057**	**12.5246**	**49.6085**	**0.1604**	**9.7483**	**0.2883**	**10.0366**	**2.6298**	**0.2657**	**2.8955**	**0.0000**	**11,012.9901**	**11,012.9901**	**0.2424**	**0.0000**	**11,018.0795**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.7364	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3879	243.3879	9.7700e-003	0.0000	243.5930
Total	**0.1213**	**0.7364**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3879**	**243.3879**	**9.7700e-003**	**0.0000**	**243.5930**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2518	7.6010	21.2132	0.0473	1.3035	0.1623	1.4658	0.3732	0.1493	0.5224	0.0000	4,011.5797	4,011.5797	0.0287	0.0000	4,012.1819
Worker	1.0647	1.2568	13.7644	0.0671	5.6439	0.0435	5.6873	1.5011	0.0403	1.5414	0.0000	3,825.1964	3,825.1964	0.1418	0.0000	3,828.1741
Total	**2.3164**	**8.8578**	**34.9776**	**0.1143**	**6.9474**	**0.2057**	**7.1531**	**1.8742**	**0.1896**	**2.0638**	**0.0000**	**7,836.7760**	**7,836.7760**	**0.1705**	**0.0000**	**7,840.3560**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.5891	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3876	243.3876	9.7700e-003	0.0000	243.5927
Total	**0.1213**	**0.5891**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3876**	**243.3876**	**9.7700e-003**	**0.0000**	**243.5927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2518	7.6010	21.2132	0.0473	1.3035	0.1623	1.4658	0.3732	0.1493	0.5224	0.0000	4,011.5797	4,011.5797	0.0287	0.0000	4,012.1819
Worker	1.0647	1.2568	13.7644	0.0671	5.6439	0.0435	5.6873	1.5011	0.0403	1.5414	0.0000	3,825.1964	3,825.1964	0.1418	0.0000	3,828.1741
Total	**2.3164**	**8.8578**	**34.9776**	**0.1143**	**6.9474**	**0.2057**	**7.1531**	**1.8742**	**0.1896**	**2.0638**	**0.0000**	**7,836.7760**	**7,836.7760**	**0.1705**	**0.0000**	**7,840.3560**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.4364	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4909	44.4909	0.0136	0.0000	44.7771
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0410**	**0.4364**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4909**	**44.4909**	**0.0136**	**0.0000**	**44.7771**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	2.3000e-003	0.0241	6.0000e-005	8.8300e-003	3.0000e-005	8.8700e-003	2.2600e-003	3.0000e-005	2.3000e-003	0.0000	4.0604	4.0604	2.1000e-004	0.0000	4.0648
Total	**1.9200e-003**	**2.3000e-003**	**0.0241**	**6.0000e-005**	**8.8300e-003**	**3.0000e-005**	**8.8700e-003**	**2.2600e-003**	**3.0000e-005**	**2.3000e-003**	**0.0000**	**4.0604**	**4.0604**	**2.1000e-004**	**0.0000**	**4.0648**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.3491	0.3166	4.8000e-004		0.0245	0.0245		0.0225	0.0225	0.0000	44.4908	44.4908	0.0136	0.0000	44.7771
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0410**	**0.3491**	**0.3166**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0225**	**0.0225**	**0.0000**	**44.4908**	**44.4908**	**0.0136**	**0.0000**	**44.7771**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	2.3000e-003	0.0241	6.0000e-005	8.8300e-003	3.0000e-005	8.8700e-003	2.2600e-003	3.0000e-005	2.3000e-003	0.0000	4.0604	4.0604	2.1000e-004	0.0000	4.0648
Total	**1.9200e-003**	**2.3000e-003**	**0.0241**	**6.0000e-005**	**8.8300e-003**	**3.0000e-005**	**8.8700e-003**	**2.2600e-003**	**3.0000e-005**	**2.3000e-003**	**0.0000**	**4.0604**	**4.0604**	**2.1000e-004**	**0.0000**	**4.0648**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0944	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2761
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8600e-003**	**0.0944**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2761**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	5.3000e-004	5.5500e-003	1.0000e-005	2.2600e-003	1.0000e-005	2.2700e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	0.9995	0.9995	5.0000e-005	0.0000	1.0005
Total	**4.4000e-004**	**5.3000e-004**	**5.5500e-003**	**1.0000e-005**	**2.2600e-003**	**1.0000e-005**	**2.2700e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**0.9995**	**0.9995**	**5.0000e-005**	**0.0000**	**1.0005**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8600e-003	0.0755	0.0797	1.2000e-004		5.1600e-003	5.1600e-003		4.7500e-003	4.7500e-003	0.0000	11.2028	11.2028	3.4900e-003	0.0000	11.2760
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8600e-003**	**0.0755**	**0.0797**	**1.2000e-004**		**5.1600e-003**	**5.1600e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**11.2028**	**11.2028**	**3.4900e-003**	**0.0000**	**11.2760**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	5.3000e-004	5.5500e-003	1.0000e-005	2.2600e-003	1.0000e-005	2.2700e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	0.9995	0.9995	5.0000e-005	0.0000	1.0005
Total	**4.4000e-004**	**5.3000e-004**	**5.5500e-003**	**1.0000e-005**	**2.2600e-003**	**1.0000e-005**	**2.2700e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**0.9995**	**0.9995**	**5.0000e-005**	**0.0000**	**1.0005**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.1907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.0470	0.0402	6.0000e-005		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	5.4895	5.4895	5.8000e-004	0.0000	5.5017
Total	**2.1978**	**0.0470**	**0.0402**	**6.0000e-005**		**3.7300e-003**	**3.7300e-003**		**3.7300e-003**	**3.7300e-003**	**0.0000**	**5.4895**	**5.4895**	**5.8000e-004**	**0.0000**	**5.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1057	0.1270	1.3293	3.1200e-003	0.2610	1.9200e-003	0.2629	0.0694	1.7700e-003	0.0712	0.0000	223.7303	223.7303	0.0114	0.0000	223.9688
Total	**0.1057**	**0.1270**	**1.3293**	**3.1200e-003**	**0.2610**	**1.9200e-003**	**0.2629**	**0.0694**	**1.7700e-003**	**0.0712**	**0.0000**	**223.7303**	**223.7303**	**0.0114**	**0.0000**	**223.9688**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.1907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.0376	0.0402	6.0000e-005		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	5.4895	5.4895	5.8000e-004	0.0000	5.5017
Total	**2.1978**	**0.0376**	**0.0402**	**6.0000e-005**		**3.7300e-003**	**3.7300e-003**		**3.7300e-003**	**3.7300e-003**	**0.0000**	**5.4895**	**5.4895**	**5.8000e-004**	**0.0000**	**5.5017**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1057	0.1270	1.3293	3.1200e-003	0.2610	1.9200e-003	0.2629	0.0694	1.7700e-003	0.0712	0.0000	223.7303	223.7303	0.0114	0.0000	223.9688
Total	**0.1057**	**0.1270**	**1.3293**	**3.1200e-003**	**0.2610**	**1.9200e-003**	**0.2629**	**0.0694**	**1.7700e-003**	**0.0712**	**0.0000**	**223.7303**	**223.7303**	**0.0114**	**0.0000**	**223.9688**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4071
Total	**0.5621**	**0.0110**	**0.0102**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.3000e-004**	**0.0000**	**1.4071**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0292	0.3055	8.0000e-004	0.0668	4.8000e-004	0.0673	0.0178	4.5000e-004	0.0182	0.0000	55.0698	55.0698	2.6700e-003	0.0000	55.1259
Total	**0.0241**	**0.0292**	**0.3055**	**8.0000e-004**	**0.0668**	**4.8000e-004**	**0.0673**	**0.0178**	**4.5000e-004**	**0.0182**	**0.0000**	**55.0698**	**55.0698**	**2.6700e-003**	**0.0000**	**55.1259**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	8.8300e-003	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4071
Total	**0.5621**	**8.8300e-003**	**0.0102**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.3000e-004**	**0.0000**	**1.4071**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0292	0.3055	8.0000e-004	0.0668	4.8000e-004	0.0673	0.0178	4.5000e-004	0.0182	0.0000	55.0698	55.0698	2.6700e-003	0.0000	55.1259
Total	**0.0241**	**0.0292**	**0.3055**	**8.0000e-004**	**0.0668**	**4.8000e-004**	**0.0673**	**0.0178**	**4.5000e-004**	**0.0182**	**0.0000**	**55.0698**	**55.0698**	**2.6700e-003**	**0.0000**	**55.1259**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	1.1165	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6495	113.6495	0.0278	0.0000	114.2335
Total	**0.1281**	**1.1165**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6495**	**113.6495**	**0.0278**	**0.0000**	**114.2335**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1152	7.9323	15.9687	0.0244	0.6702	0.1205	0.7907	0.1916	0.1108	0.3024	0.0000	2,139.8239	2,139.8239	0.0161	0.0000	2,140.1627
Worker	1.0526	1.2748	13.3295	0.0348	2.9130	0.0210	2.9340	0.7748	0.0194	0.7942	0.0000	2,402.4637	2,402.4637	0.1167	0.0000	2,404.9134
Total	**2.1679**	**9.2071**	**29.2982**	**0.0592**	**3.5831**	**0.1415**	**3.7247**	**0.9663**	**0.1302**	**1.0966**	**0.0000**	**4,542.2876**	**4,542.2876**	**0.1328**	**0.0000**	**4,545.0761**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1281	0.8932	0.8416	1.2900e-003		0.0717	0.0717		0.0674	0.0674	0.0000	113.6493	113.6493	0.0278	0.0000	114.2334
Total	**0.1281**	**0.8932**	**0.8416**	**1.2900e-003**		**0.0717**	**0.0717**		**0.0674**	**0.0674**	**0.0000**	**113.6493**	**113.6493**	**0.0278**	**0.0000**	**114.2334**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1152	7.9323	15.9687	0.0244	0.6702	0.1205	0.7907	0.1916	0.1108	0.3024	0.0000	2,139.8239	2,139.8239	0.0161	0.0000	2,140.1627
Worker	1.0526	1.2748	13.3295	0.0348	2.9130	0.0210	2.9340	0.7748	0.0194	0.7942	0.0000	2,402.4637	2,402.4637	0.1167	0.0000	2,404.9134
Total	**2.1679**	**9.2071**	**29.2982**	**0.0592**	**3.5831**	**0.1415**	**3.7247**	**0.9663**	**0.1302**	**1.0966**	**0.0000**	**4,542.2876**	**4,542.2876**	**0.1328**	**0.0000**	**4,545.0761**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.1888	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.1888**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7439	19.6221	41.0339	0.0662	1.8225	0.3032	2.1257	0.5211	0.2787	0.7998	0.0000	5,723.3825	5,723.3825	0.0428	0.0000	5,724.2802
Worker	2.6252	3.1688	33.3718	0.0942	7.9196	0.0564	7.9760	2.1064	0.0523	2.1586	0.0000	6,267.1364	6,267.1364	0.2950	0.0000	6,273.3321
Total	**5.3691**	**22.7909**	**74.4057**	**0.1604**	**9.7421**	**0.3595**	**10.1017**	**2.6274**	**0.3310**	**2.9584**	**0.0000**	**11,990.5189**	**11,990.5189**	**0.3378**	**0.0000**	**11,997.6122**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3305	17.0632	37.9263	0.0663	1.8299	0.2715	2.1014	0.5232	0.2497	0.7729	0.0000	5,614.0668	5,614.0668	0.0414	0.0000	5,614.9361
Worker	2.4617	2.9455	31.1334	0.0945	7.9500	0.0566	8.0066	2.1144	0.0525	2.1669	0.0000	6,042.0947	6,042.0947	0.2799	0.0000	6,047.9730
Total	**4.7921**	**20.0087**	**69.0596**	**0.1609**	**9.7798**	**0.3281**	**10.1079**	**2.6376**	**0.3022**	**2.9399**	**0.0000**	**11,656.1614**	**11,656.1614**	**0.3213**	**0.0000**	**11,662.9091**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	1.2225	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6275	162.6275	0.0392	0.0000	163.4503
Total	**0.1335**	**1.2225**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6275**	**162.6275**	**0.0392**	**0.0000**	**163.4503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1499	7.6858	19.4337	0.0357	0.9851	0.1316	1.1166	0.2817	0.1211	0.4027	0.0000	3,019.6204	3,019.6204	0.0221	0.0000	3,020.0850
Worker	1.2503	1.4805	15.7083	0.0509	4.2784	0.0306	4.3090	1.1379	0.0284	1.1663	0.0000	3,196.6091	3,196.6091	0.1434	0.0000	3,199.6209
Total	**2.4002**	**9.1663**	**35.1420**	**0.0865**	**5.2635**	**0.1622**	**5.4257**	**1.4196**	**0.1495**	**1.5691**	**0.0000**	**6,216.2295**	**6,216.2295**	**0.1656**	**0.0000**	**6,219.7059**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1335	0.9780	1.1659	1.8900e-003		0.0673	0.0673		0.0633	0.0633	0.0000	162.6273	162.6273	0.0392	0.0000	163.4501
Total	**0.1335**	**0.9780**	**1.1659**	**1.8900e-003**		**0.0673**	**0.0673**		**0.0633**	**0.0633**	**0.0000**	**162.6273**	**162.6273**	**0.0392**	**0.0000**	**163.4501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1499	7.6858	19.4337	0.0357	0.9851	0.1316	1.1166	0.2817	0.1211	0.4027	0.0000	3,019.6204	3,019.6204	0.0221	0.0000	3,020.0850
Worker	1.2503	1.4805	15.7083	0.0509	4.2784	0.0306	4.3090	1.1379	0.0284	1.1663	0.0000	3,196.6091	3,196.6091	0.1434	0.0000	3,199.6209
Total	**2.4002**	**9.1663**	**35.1420**	**0.0865**	**5.2635**	**0.1622**	**5.4257**	**1.4196**	**0.1495**	**1.5691**	**0.0000**	**6,216.2295**	**6,216.2295**	**0.1656**	**0.0000**	**6,219.7059**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.3165	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3265
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.3165**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.9100e-003	0.0202	7.0000e-005	0.0103	4.0000e-005	0.0103	2.6300e-003	4.0000e-005	2.6700e-003	0.0000	4.1155	4.1155	1.8000e-004	0.0000	4.1194
Total	**1.6100e-003**	**1.9100e-003**	**0.0202**	**7.0000e-005**	**0.0103**	**4.0000e-005**	**0.0103**	**2.6300e-003**	**4.0000e-005**	**2.6700e-003**	**0.0000**	**4.1155**	**4.1155**	**1.8000e-004**	**0.0000**	**4.1194**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0308	0.2532	0.3588	5.6000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	48.9937	48.9937	0.0159	0.0000	49.3264
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0308**	**0.2532**	**0.3588**	**5.6000e-004**		**0.0166**	**0.0166**		**0.0153**	**0.0153**	**0.0000**	**48.9937**	**48.9937**	**0.0159**	**0.0000**	**49.3264**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.9100e-003	0.0202	7.0000e-005	0.0103	4.0000e-005	0.0103	2.6300e-003	4.0000e-005	2.6700e-003	0.0000	4.1155	4.1155	1.8000e-004	0.0000	4.1194
Total	**1.6100e-003**	**1.9100e-003**	**0.0202**	**7.0000e-005**	**0.0103**	**4.0000e-005**	**0.0103**	**2.6300e-003**	**4.0000e-005**	**2.6700e-003**	**0.0000**	**4.1155**	**4.1155**	**1.8000e-004**	**0.0000**	**4.1194**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0382	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**4.9974**	**0.0382**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0887	0.1050	1.1143	3.6100e-003	0.3035	2.1700e-003	0.3057	0.0807	2.0200e-003	0.0827	0.0000	226.7647	226.7647	0.0102	0.0000	226.9784
Total	**0.0887**	**0.1050**	**1.1143**	**3.6100e-003**	**0.3035**	**2.1700e-003**	**0.3057**	**0.0807**	**2.0200e-003**	**0.0827**	**0.0000**	**226.7647**	**226.7647**	**0.0102**	**0.0000**	**226.9784**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4700e-003	0.0305	0.0454	7.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	6.3831	6.3831	4.4000e-004	0.0000	6.3923
Total	**4.9974**	**0.0305**	**0.0454**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**6.3831**	**6.3831**	**4.4000e-004**	**0.0000**	**6.3923**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0887	0.1050	1.1143	3.6100e-003	0.3035	2.1700e-003	0.3057	0.0807	2.0200e-003	0.0827	0.0000	226.7647	226.7647	0.0102	0.0000	226.9784
Total	**0.0887**	**0.1050**	**1.1143**	**3.6100e-003**	**0.3035**	**2.1700e-003**	**0.3057**	**0.0807**	**2.0200e-003**	**0.0827**	**0.0000**	**226.7647**	**226.7647**	**0.0102**	**0.0000**	**226.9784**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.6532	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9086	215.9086	8.6700e-003	0.0000	216.0906
Total	**0.1076**	**0.6532**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9086**	**215.9086**	**8.6700e-003**	**0.0000**	**216.0906**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1104	6.7428	18.8182	0.0419	1.1564	0.1439	1.3003	0.3310	0.1324	0.4634	0.0000	3,558.6594	3,558.6594	0.0254	0.0000	3,559.1936
Worker	0.9445	1.1149	12.2103	0.0595	5.0067	0.0386	5.0452	1.3316	0.0358	1.3674	0.0000	3,393.3194	3,393.3194	0.1258	0.0000	3,395.9609
Total	**2.0549**	**7.8577**	**31.0285**	**0.1014**	**6.1630**	**0.1825**	**6.3455**	**1.6626**	**0.1682**	**1.8308**	**0.0000**	**6,951.9787**	**6,951.9787**	**0.1512**	**0.0000**	**6,955.1545**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.5226	1.3308	2.5400e-003		0.0122	0.0122		0.0122	0.0122	0.0000	215.9083	215.9083	8.6700e-003	0.0000	216.0903
Total	**0.1076**	**0.5226**	**1.3308**	**2.5400e-003**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**215.9083**	**215.9083**	**8.6700e-003**	**0.0000**	**216.0903**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1104	6.7428	18.8182	0.0419	1.1564	0.1439	1.3003	0.3310	0.1324	0.4634	0.0000	3,558.6594	3,558.6594	0.0254	0.0000	3,559.1936
Worker	0.9445	1.1149	12.2103	0.0595	5.0067	0.0386	5.0452	1.3316	0.0358	1.3674	0.0000	3,393.3194	3,393.3194	0.1258	0.0000	3,395.9609
Total	**2.0549**	**7.8577**	**31.0285**	**0.1014**	**6.1630**	**0.1825**	**6.3455**	**1.6626**	**0.1682**	**1.8308**	**0.0000**	**6,951.9787**	**6,951.9787**	**0.1512**	**0.0000**	**6,955.1545**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7471	10.5792	29.5794	0.0661	1.8226	0.2270	2.0496	0.5218	0.2088	0.7306	0.0000	5,610.8731	5,610.8731	0.0401	0.0000	5,611.7158
Worker	1.4469	1.7188	18.8991	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1547	0.0000	5,330.7699	5,330.7699	0.1955	0.0000	5,334.8763
Total	**3.1940**	**12.2980**	**48.4784**	**0.1599**	**9.7119**	**0.2878**	**9.9997**	**2.6201**	**0.2653**	**2.8854**	**0.0000**	**10,941.6431**	**10,941.6431**	**0.2357**	**0.0000**	**10,946.5921**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8235	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8235**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7471	10.5792	29.5794	0.0661	1.8226	0.2270	2.0496	0.5218	0.2088	0.7306	0.0000	5,610.8731	5,610.8731	0.0401	0.0000	5,611.7158
Worker	1.4469	1.7188	18.8991	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1547	0.0000	5,330.7699	5,330.7699	0.1955	0.0000	5,334.8763
Total	**3.1940**	**12.2980**	**48.4784**	**0.1599**	**9.7119**	**0.2878**	**9.9997**	**2.6201**	**0.2653**	**2.8854**	**0.0000**	**10,941.6431**	**10,941.6431**	**0.2357**	**0.0000**	**10,946.5921**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	**0.1695**	**1.0293**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2196**	**340.2196**	**0.0137**	**0.0000**	**340.5064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7443	10.5386	29.4989	0.0662	1.8230	0.2271	2.0501	0.5220	0.2090	0.7309	0.0000	5,614.0778	5,614.0778	0.0402	0.0000	5,614.9213
Worker	1.4018	1.6861	18.5687	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1548	0.0000	5,316.9882	5,316.9882	0.1930	0.0000	5,321.0412
Total	**3.1461**	**12.2247**	**48.0677**	**0.1599**	**9.7123**	**0.2880**	**10.0003**	**2.6203**	**0.2654**	**2.8857**	**0.0000**	**10,931.0660**	**10,931.0660**	**0.2332**	**0.0000**	**10,935.9625**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	0.8235	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	**0.1695**	**0.8235**	**2.0971**	**4.0100e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**340.2192**	**340.2192**	**0.0137**	**0.0000**	**340.5060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7443	10.5386	29.4989	0.0662	1.8230	0.2271	2.0501	0.5220	0.2090	0.7309	0.0000	5,614.0778	5,614.0778	0.0402	0.0000	5,614.9213
Worker	1.4018	1.6861	18.5687	0.0937	7.8893	0.0609	7.9501	2.0983	0.0565	2.1548	0.0000	5,316.9882	5,316.9882	0.1930	0.0000	5,321.0412
Total	**3.1461**	**12.2247**	**48.0677**	**0.1599**	**9.7123**	**0.2880**	**10.0003**	**2.6203**	**0.2654**	**2.8857**	**0.0000**	**10,931.0660**	**10,931.0660**	**0.2332**	**0.0000**	**10,935.9625**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2646	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8317	96.8317	3.6100e-003	0.0000	96.9075
Total	**0.0449**	**0.2646**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8317**	**96.8317**	**3.6100e-003**	**0.0000**	**96.9075**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4952	2.9890	8.3703	0.0188	0.5190	0.0647	0.5836	0.1486	0.0595	0.2081	0.0000	1,598.6445	1,598.6445	0.0114	0.0000	1,598.8847
Worker	0.3878	0.4726	5.2043	0.0267	2.2454	0.0173	2.2627	0.5972	0.0161	0.6133	0.0000	1,510.0539	1,510.0539	0.0543	0.0000	1,511.1944
Total	**0.8830**	**3.4617**	**13.5747**	**0.0455**	**2.7644**	**0.0820**	**2.8463**	**0.7458**	**0.0756**	**0.8214**	**0.0000**	**3,108.6983**	**3,108.6983**	**0.0658**	**0.0000**	**3,110.0791**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.2117	0.5954	1.1400e-003		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	96.8316	96.8316	3.6100e-003	0.0000	96.9074
Total	**0.0449**	**0.2117**	**0.5954**	**1.1400e-003**		**3.3300e-003**	**3.3300e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**96.8316**	**96.8316**	**3.6100e-003**	**0.0000**	**96.9074**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4952	2.9890	8.3703	0.0188	0.5190	0.0647	0.5836	0.1486	0.0595	0.2081	0.0000	1,598.6445	1,598.6445	0.0114	0.0000	1,598.8847
Worker	0.3878	0.4726	5.2043	0.0267	2.2454	0.0173	2.2627	0.5972	0.0161	0.6133	0.0000	1,510.0539	1,510.0539	0.0543	0.0000	1,511.1944
Total	**0.8830**	**3.4617**	**13.5747**	**0.0455**	**2.7644**	**0.0820**	**2.8463**	**0.7458**	**0.0756**	**0.8214**	**0.0000**	**3,108.6983**	**3,108.6983**	**0.0658**	**0.0000**	**3,110.0791**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2652	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6294	89.6294	4.2000e-003	0.0000	89.7176
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2652**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6294**	**89.6294**	**4.2000e-003**	**0.0000**	**89.7176**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.8600e-003	0.0204	1.0000e-004	0.0156	6.0000e-005	0.0157	4.0000e-003	6.0000e-005	4.0600e-003	0.0000	5.6746	5.6746	2.1000e-004	0.0000	5.6791
Total	**1.5800e-003**	**1.8600e-003**	**0.0204**	**1.0000e-004**	**0.0156**	**6.0000e-005**	**0.0157**	**4.0000e-003**	**6.0000e-005**	**4.0600e-003**	**0.0000**	**5.6746**	**5.6746**	**2.1000e-004**	**0.0000**	**5.6791**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2122	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6293	89.6293	4.2000e-003	0.0000	89.7175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2122**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6293**	**89.6293**	**4.2000e-003**	**0.0000**	**89.7175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.8600e-003	0.0204	1.0000e-004	0.0156	6.0000e-005	0.0157	4.0000e-003	6.0000e-005	4.0600e-003	0.0000	5.6746	5.6746	2.1000e-004	0.0000	5.6791
Total	**1.5800e-003**	**1.8600e-003**	**0.0204**	**1.0000e-004**	**0.0156**	**6.0000e-005**	**0.0157**	**4.0000e-003**	**6.0000e-005**	**4.0600e-003**	**0.0000**	**5.6746**	**5.6746**	**2.1000e-004**	**0.0000**	**5.6791**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.7748	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8122	261.8122	0.0123	0.0000	262.0699
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.7748**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8122**	**261.8122**	**0.0123**	**0.0000**	**262.0699**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4900e-003	5.3300e-003	0.0586	2.9000e-004	0.0456	1.9000e-004	0.0458	0.0117	1.8000e-004	0.0119	0.0000	16.5254	16.5254	6.1000e-004	0.0000	16.5382
Total	**4.4900e-003**	**5.3300e-003**	**0.0586**	**2.9000e-004**	**0.0456**	**1.9000e-004**	**0.0458**	**0.0117**	**1.8000e-004**	**0.0119**	**0.0000**	**16.5254**	**16.5254**	**6.1000e-004**	**0.0000**	**16.5382**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.6198	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8119	261.8119	0.0123	0.0000	262.0696
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.6198**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8119**	**261.8119**	**0.0123**	**0.0000**	**262.0696**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4900e-003	5.3300e-003	0.0586	2.9000e-004	0.0456	1.9000e-004	0.0458	0.0117	1.8000e-004	0.0119	0.0000	16.5254	16.5254	6.1000e-004	0.0000	16.5382
Total	**4.4900e-003**	**5.3300e-003**	**0.0586**	**2.9000e-004**	**0.0456**	**1.9000e-004**	**0.0458**	**0.0117**	**1.8000e-004**	**0.0119**	**0.0000**	**16.5254**	**16.5254**	**6.1000e-004**	**0.0000**	**16.5382**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0163	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**9.3236**	**0.0163**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0503	0.5526	2.7400e-003	0.2307	1.7800e-003	0.2324	0.0614	1.6500e-003	0.0630	0.0000	155.8602	155.8602	5.7200e-003	0.0000	155.9803
Total	**0.0423**	**0.0503**	**0.5526**	**2.7400e-003**	**0.2307**	**1.7800e-003**	**0.2324**	**0.0614**	**1.6500e-003**	**0.0630**	**0.0000**	**155.8602**	**155.8602**	**5.7200e-003**	**0.0000**	**155.9803**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0130	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**9.3236**	**0.0130**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0503	0.5526	2.7400e-003	0.2307	1.7800e-003	0.2324	0.0614	1.6500e-003	0.0630	0.0000	155.8602	155.8602	5.7200e-003	0.0000	155.9803
Total	**0.0423**	**0.0503**	**0.5526**	**2.7400e-003**	**0.2307**	**1.7800e-003**	**0.2324**	**0.0614**	**1.6500e-003**	**0.0630**	**0.0000**	**155.8602**	**155.8602**	**5.7200e-003**	**0.0000**	**155.9803**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	63.7762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**63.7932**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2804	0.3373	3.7147	0.0188	1.5782	0.0122	1.5904	0.4198	0.0113	0.4311	0.0000	1,063.6550	1,063.6550	0.0386	0.0000	1,064.4658
Total	**0.2804**	**0.3373**	**3.7147**	**0.0188**	**1.5782**	**0.0122**	**1.5904**	**0.4198**	**0.0113**	**0.4311**	**0.0000**	**1,063.6550**	**1,063.6550**	**0.0386**	**0.0000**	**1,064.4658**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	63.7762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.0891	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**63.7932**	**0.0891**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2804	0.3373	3.7147	0.0188	1.5782	0.0122	1.5904	0.4198	0.0113	0.4311	0.0000	1,063.6550	1,063.6550	0.0386	0.0000	1,064.4658
Total	**0.2804**	**0.3373**	**3.7147**	**0.0188**	**1.5782**	**0.0122**	**1.5904**	**0.4198**	**0.0113**	**0.4311**	**0.0000**	**1,063.6550**	**1,063.6550**	**0.0386**	**0.0000**	**1,064.4658**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.1149	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6538
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.1149**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0268	0.0920	0.3718	6.6000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003	0.0000	56.6080	56.6080	2.1800e-003	0.0000	56.6537
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.0920**	**0.3718**	**6.6000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**56.6080**	**56.6080**	**2.1800e-003**	**0.0000**	**56.6537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1100e-003	0.0123	6.0000e-005	9.8600e-003	4.0000e-005	9.9000e-003	2.5300e-003	4.0000e-005	2.5700e-003	0.0000	3.5562	3.5562	1.3000e-004	0.0000	3.5589
Total	**9.1000e-004**	**1.1100e-003**	**0.0123**	**6.0000e-005**	**9.8600e-003**	**4.0000e-005**	**9.9000e-003**	**2.5300e-003**	**4.0000e-005**	**2.5700e-003**	**0.0000**	**3.5562**	**3.5562**	**1.3000e-004**	**0.0000**	**3.5589**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0182	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**3.5486**	**0.0182**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0613	0.6753	3.4600e-003	0.2914	2.2500e-003	0.2936	0.0775	2.0900e-003	0.0796	0.0000	195.9463	195.9463	7.0500e-003	0.0000	196.0943
Total	**0.0503**	**0.0613**	**0.6753**	**3.4600e-003**	**0.2914**	**2.2500e-003**	**0.2936**	**0.0775**	**2.0900e-003**	**0.0796**	**0.0000**	**195.9463**	**195.9463**	**7.0500e-003**	**0.0000**	**196.0943**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8300e-003	0.0146	0.0431	7.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	6.1278	6.1278	2.3000e-004	0.0000	6.1326
Total	**3.5486**	**0.0146**	**0.0431**	**7.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**6.1278**	**6.1278**	**2.3000e-004**	**0.0000**	**6.1326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0503	0.0613	0.6753	3.4600e-003	0.2914	2.2500e-003	0.2936	0.0775	2.0900e-003	0.0796	0.0000	195.9463	195.9463	7.0500e-003	0.0000	196.0943
Total	**0.0503**	**0.0613**	**0.6753**	**3.4600e-003**	**0.2914**	**2.2500e-003**	**0.2936**	**0.0775**	**2.0900e-003**	**0.0796**	**0.0000**	**195.9463**	**195.9463**	**7.0500e-003**	**0.0000**	**196.0943**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	50.3309	78.0720	446.8260	1.6024	110.4920	1.8293	112.3213	29.6056	1.6901	31.2957	0.0000	101,967.1440	101,967.1440	2.8797	0.0000	102,027.6170
Unmitigated	50.3309	78.0720	446.8260	1.6024	110.4920	1.8293	112.3213	29.6056	1.6901	31.2957	0.0000	101,967.1440	101,967.1440	2.8797	0.0000	102,027.6170

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	49,289,945	49,289,945
Arena	201.81	201.81	201.81	263,992	263,992
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	86,015,162	86,015,162
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,362,626	2,362,626
Hospital	30,319.32	30,319.32	30319.32	64,014,563	64,014,563
Hotel	8,987.00	8,987.00	8987.00	13,914,011	13,914,011
Strip Mall	53,395.00	53,395.00	53395.00	80,817,860	80,817,860
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	169,692.62	169,692.62	169,692.62	296,678,160	296,678,160

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.80	3.40	4.42	46.50	12.50	41.00	100	0	0
Arena	6.80	3.40	4.42	0.00	81.00	19.00	100	0	0
City Park	6.80	3.40	4.42	33.00	48.00	19.00	100	0	0
General Office Building	6.80	3.40	4.42	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	6.80	3.40	4.42	13.60	67.40	19.00	100	0	0
Hospital	6.80	3.40	4.42	64.90	16.10	19.00	100	0	0
Hotel	6.80	3.40	4.42	19.40	61.60	19.00	100	0	0
Strip Mall	6.80	3.40	4.42	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	6.80	3.40	4.42	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	39,447.6857	39,447.6857	1.9379	0.4010	39,612.6775
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	39,447.6857	39,447.6857	1.9379	0.4010	39,612.6775
NaturalGas Mitigated	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	12,169.2716	12,169.2716	0.2332	0.2231	12,243.3318
NaturalGas Unmitigated	1.2297	11.0390	8.3661	0.0671		0.8496	0.8496		0.8496	0.8496	0.0000	12,169.2716	12,169.2716	0.2332	0.2231	12,243.3318

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.76106e+007	0.2567	2.3339	1.9604	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,540.6851	2,540.6851	0.0487	0.0466	2,556.1473
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Hotel	5.04875e+007	0.2722	2.4749	2.0789	0.0149		0.1881	0.1881		0.1881	0.1881	0.0000	2,694.2048	2,694.2048	0.0516	0.0494	2,710.6013
Strip Mall	4.04535e+006	0.0218	0.1983	0.1666	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.8753	215.8753	4.1400e-003	3.9600e-003	217.1891
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.7473e+007	0.2560	2.1875	0.9308	0.0140		0.1769	0.1769		0.1769	0.1769	0.0000	2,533.3379	2,533.3379	0.0486	0.0464	2,548.7554
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Total		**1.2296**	**11.0390**	**8.3661**	**0.0671**		**0.8496**	**0.8496**		**0.8496**	**0.8496**	**0.0000**	**12,169.2716**	**12,169.2716**	**0.2333**	**0.2231**	**12,243.3318**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.76106e+007	0.2567	2.3339	1.9604	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,540.6851	2,540.6851	0.0487	0.0466	2,556.1473
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hospital	6.54033e+007	0.3527	3.2060	2.6931	0.0192		0.2437	0.2437		0.2437	0.2437	0.0000	3,490.1681	3,490.1681	0.0669	0.0640	3,511.4087
Hotel	5.04875e+007	0.2722	2.4749	2.0789	0.0149		0.1881	0.1881		0.1881	0.1881	0.0000	2,694.2048	2,694.2048	0.0516	0.0494	2,710.6013
Strip Mall	4.04535e+006	0.0218	0.1983	0.1666	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	215.8753	215.8753	4.1400e-003	3.9600e-003	217.1891
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.7473e+007	0.2560	2.1875	0.9308	0.0140		0.1769	0.1769		0.1769	0.1769	0.0000	2,533.3379	2,533.3379	0.0486	0.0464	2,548.7554
Arena	1.22192e+007	0.0659	0.5990	0.5031	3.5900e-003		0.0455	0.0455		0.0455	0.0455	0.0000	652.0639	652.0639	0.0125	0.0120	656.0323
Total		**1.2296**	**11.0390**	**8.3661**	**0.0671**		**0.8496**	**0.8496**		**0.8496**	**0.8496**	**0.0000**	**12,169.2716**	**12,169.2716**	**0.2333**	**0.2231**	**12,243.3318**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.12266e+007	5,683.6422	0.2792	0.0578	5,707.4143
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	6.59644e+007	17,662.6244	0.8677	0.1795	17,736.4992
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.08419e+007	2,903.0284	0.1426	0.0295	2,915.1704
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**39,447.6857**	**1.9380**	**0.4010**	**39,612.6775**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.12266e+007	5,683.6422	0.2792	0.0578	5,707.4143
Arena	6.14126e+006	1,644.3855	0.0808	0.0167	1,651.2633
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	6.59644e+007	17,662.6244	0.8677	0.1795	17,736.4992
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hospital	2.28776e+007	6,125.7195	0.3009	0.0623	6,151.3406
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.08419e+007	2,903.0284	0.1426	0.0295	2,915.1704
Unenclosed Parking Structure	2.27232e+006	608.4367	0.0299	6.1800e-003	610.9815
Total		**39,447.6857**	**1.9380**	**0.4010**	**39,612.6775**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Unmitigated	79.7420	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.4158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.4704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8558	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Total	**79.7420**	**0.7126**	**61.7922**	**3.2800e-003**		**0.3436**	**0.3436**		**0.3436**	**0.3436**	**0.0000**	**101.3349**	**101.3349**	**0.0969**	**0.0000**	**103.3696**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.4158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.4704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8558	0.7126	61.7922	3.2800e-003		0.3436	0.3436		0.3436	0.3436	0.0000	101.3349	101.3349	0.0969	0.0000	103.3696
Total	**79.7420**	**0.7126**	**61.7922**	**3.2800e-003**		**0.3436**	**0.3436**		**0.3436**	**0.3436**	**0.0000**	**101.3349**	**101.3349**	**0.0969**	**0.0000**	**103.3696**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3,568.3714	2.1409	1.2870	4,012.3031
Unmitigated	3,568.3714	2.1333	1.2854	4,011.6586

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	390.924 / 246.452	890.8230	0.5130	0.3084	997.2086
Arena	170.456 / 10.8802	297.9160	0.2192	0.1336	343.9251
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	807.444 / 494.885	1,826.7071	1.0590	0.6369	2,046.3886
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0175	0.0105	33.7913
Hospital	154.09 / 29.3505	287.6014	0.1991	0.1209	329.2696
Hotel	27.9034 / 3.10038	50.0050	0.0360	0.0219	57.5418
Strip Mall	67.0356 / 41.0864	151.6568	0.0879	0.0529	169.8952
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3,568.3714**	**2.1333**	**1.2855**	**4,011.6586**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	390.924 / 246.452	890.8230	0.5148	0.3088	997.3631
Arena	170.456 / 10.8802	297.9160	0.2200	0.1337	343.9924
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	807.444 / 494.885	1,826.7071	1.0627	0.6377	2,046.7076
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0176	0.0105	33.7966
Hospital	154.09 / 29.3505	287.6014	0.1998	0.1211	329.3305
Hotel	27.9034 / 3.10038	50.0050	0.0361	0.0219	57.5528
Strip Mall	67.0356 / 41.0864	151.6568	0.0882	0.0529	169.9217
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3,568.3714**	**2.1409**	**1.2870**	**4,012.3031**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4,833.0951	285.6277	0.0000	10,831.2775
Unmitigated	4,833.0951	285.6277	0.0000	10,831.2775

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2760	560.2551	33.1101	0.0000	1,255.5677
Arena	10.89	2.2106	0.1306	0.0000	4.9540
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	4224.99	857.6348	50.6848	0.0000	1,922.0148
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	950.25	192.8922	11.3996	0.0000	432.2838
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**4,833.0951**	**285.6277**	**0.0000**	**10,831.2775**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2760	560.2551	33.1101	0.0000	1,255.5677
Arena	10.89	2.2106	0.1306	0.0000	4.9540
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	4224.99	857.6348	50.6848	0.0000	1,922.0148
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hospital	13262.4	2,692.1474	159.1014	0.0000	6,033.2757
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	950.25	192.8922	11.3996	0.0000	432.2838
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**4,833.0951**	**285.6277**	**0.0000**	**10,831.2775**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - MLS Event - Adjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates and trip lengths were adjusted to reflect the VMT provided by F&P.

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	NumDays	9,300.00	272.00
tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65

tblEnergyUse	T24NG	34.77	26.08
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CC_TL	5.00	3.20
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CNW_TL	6.50	4.16
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40

tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	CW_TL	10.00	6.40
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.16
tblVehicleTrips	HS_TL	5.00	3.20
tblVehicleTrips	HW_TL	10.00	6.40
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	73.00	100.00

tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	10.71	49.14
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	10.71	49.14
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	10.71	49.14
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69
tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	407.5484	927.0078	1.6312	90.3351	10.4211	100.7562	25.7755	9.6183	35.3938	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	454.3267	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	408.4243	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	371.6449	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	326.6423	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	280.2092	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	126.3157	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936
2023	34.7236	115.1503	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	112.4567	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	109.9205	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	108.4205	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	107.1848	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	106.0658	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	105.0809	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	99.6948	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	28.2592	98.9290	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	196.5244	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	104.6958	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	100.3751	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	95.9501	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,835.5600**	**12,664.2858**	**35.3628**	**2,047.0835**	**90.0098**	**2,136.8822**	**551.8922**	**83.3729**	**635.0473**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8791**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	386.8844	927.0078	1.6312	86.1508	10.4211	96.5719	23.8465	9.6183	33.4648	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	443.7645	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	399.1200	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	363.2589	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	319.0087	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	273.2731	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	123.2084	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	34.7236	112.2878	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	109.7812	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	107.4386	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	105.9386	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	104.7029	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	103.5839	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	102.5989	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	98.1112	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501
2031	28.2592	97.3454	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	193.3572	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	101.7162	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	98.6202	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	94.5199	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,738.5199**	**12,664.2858**	**35.3628**	**2,042.8992**	**90.0098**	**2,132.6979**	**549.9632**	**83.3729**	**633.1183**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8790**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.53**	**0.00**	**0.00**	**0.20**	**0.00**	**0.20**	**0.35**	**0.00**	**0.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	346.4912	421.7001	2,621.9711	9.7826	641.7224	10.4263	652.1488	171.4537	9.6338	181.0876		681,726.3148	681,726.3148	17.9876		682,104.0549
Total	**794.8493**	**487.8881**	**3,162.1506**	**10.1763**	**641.7224**	**17.8304**	**659.5528**	**171.4537**	**17.0379**	**188.4916**	**0.0000**	**756,123.0905**	**756,123.0905**	**20.2509**	**1.3476**	**756,966.1015**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	346.4912	421.7001	2,621.9711	9.7826	641.7224	10.4263	652.1488	171.4537	9.6338	181.0876		681,726.3148	681,726.3148	17.9876		682,104.0549
Total	**794.8493**	**487.8881**	**3,162.1506**	**10.1763**	**641.7224**	**17.8304**	**659.5528**	**171.4537**	**17.0379**	**188.4916**	**0.0000**	**756,123.0905**	**756,123.0905**	**20.2509**	**1.3476**	**756,966.1015**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45

Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6078	0.0000	7.6078	3.5073	0.0000	3.5073			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**7.6078**	**3.5842**	**11.1920**	**3.5073**	**3.2975**	**6.8048**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4235	0.0000	3.4235	1.5783	0.0000	1.5783			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**3.4235**	**3.5842**	**7.0077**	**1.5783**	**3.2975**	**4.8758**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	22.8051	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**22.8051**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	16.2371	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**16.2371**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	13.7302	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**13.7302**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	1.7480	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**1.7480**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	1.6046	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**1.6046**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	10.1285	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**10.1285**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.2215	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.2215**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**7.1510**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**		**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	5.7208	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**5.7208**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**4.7892**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**		**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	3.8313	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**3.8313**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.6062	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.6062**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	346.4912	421.7001	2,621.9711	9.7826	641.7224	10.4263	652.1488	171.4537	9.6338	181.0876		681,726.3148	681,726.3148	17.9876		682,104.0549
Unmitigated	346.4912	421.7001	2,621.9711	9.7826	641.7224	10.4263	652.1488	171.4537	9.6338	181.0876		681,726.3148	681,726.3148	17.9876		682,104.0549

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	46,390,536	46,390,536
Arena	19,444.70	19,444.70	19444.70	23,940,188	23,940,188
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	80,955,446	80,955,446
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,223,648	2,223,648
Hospital	30,319.32	30,319.32	30319.32	60,249,000	60,249,000
Hotel	8,987.00	8,987.00	8987.00	13,095,540	13,095,540
Strip Mall	53,395.00	53,395.00	53395.00	76,063,869	76,063,869
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	188,935.51	188,935.51	188,935.51	302,918,228	302,918,228

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.40	3.20	4.16	46.50	12.50	41.00	100	0	0
Arena	6.40	3.20	4.16	0.00	81.00	19.00	100	0	0
City Park	6.40	3.20	4.16	33.00	48.00	19.00	100	0	0
General Office Building	6.40	3.20	4.16	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	6.40	3.20	4.16	13.60	67.40	19.00	100	0	0
Hospital	6.40	3.20	4.16	64.90	16.10	19.00	100	0	0
Hotel	6.40	3.20	4.16	19.40	61.60	19.00	100	0	0
Strip Mall	6.40	3.20	4.16	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	6.40	3.20	4.16	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
NaturalGas Unmitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33477.3	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130440	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11083.2	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130.44	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179.187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138.322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11.0832	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130.063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Arena	33.4773	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Unmitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - Non MLS Event - Adjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P. Trip lengths were adjusted to match the VMT provided by F&P.

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
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tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65

tblEnergyUse	T24NG	34.77	26.08
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CC_TL	5.00	3.40
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CNW_TL	6.50	4.42
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tblVehicleTrips	CNW_TL	6.50	4.42
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80

tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	CW_TL	10.00	6.80
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.42
tblVehicleTrips	HS_TL	5.00	3.40
tblVehicleTrips	HW_TL	10.00	6.80
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	73.00	100.00

tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	10.71	0.51
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	10.71	0.51
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	10.71	0.51
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69
tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	407.5484	927.0078	1.6312	90.3351	10.4211	100.7562	25.7755	9.6183	35.3938	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	454.3267	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	408.4243	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	371.6449	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	326.6423	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	280.2092	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	126.3157	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936
2023	34.7236	115.1503	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	112.4567	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	109.9205	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	108.4205	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	107.1848	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	106.0658	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	105.0809	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	99.6948	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	28.2592	98.9290	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	196.5244	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	104.6958	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	100.3751	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	95.9501	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,835.5600**	**12,664.2858**	**35.3628**	**2,047.0835**	**90.0098**	**2,136.8822**	**551.8922**	**83.3729**	**635.0473**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8791**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	386.8844	927.0078	1.6312	86.1508	10.4211	96.5719	23.8465	9.6183	33.4648	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	443.7645	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	399.1200	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	363.2589	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	319.0087	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	273.2731	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	123.2084	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	34.7236	112.2878	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	109.7812	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	107.4386	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	105.9386	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	104.7029	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	103.5839	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	102.5989	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	98.1112	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501
2031	28.2592	97.3454	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	193.3572	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	101.7162	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	98.6202	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	94.5199	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,738.5199**	**12,664.2858**	**35.3628**	**2,042.8992**	**90.0098**	**2,132.6979**	**549.9632**	**83.3729**	**633.1183**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8790**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.53**	**0.00**	**0.00**	**0.20**	**0.00**	**0.20**	**0.35**	**0.00**	**0.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	316.4413	401.5533	2,502.7747	9.5421	628.5031	10.0419	638.5449	167.9218	9.2781	177.1998		664,925.4682	664,925.4682	17.4452		665,291.8179
Total	**764.7994**	**467.7414**	**3,042.9542**	**9.9359**	**628.5031**	**17.4459**	**645.9490**	**167.9218**	**16.6821**	**184.6039**	**0.0000**	**739,322.2439**	**739,322.2439**	**19.7085**	**1.3476**	**740,153.8645**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	316.4413	401.5533	2,502.7747	9.5421	628.5031	10.0419	638.5449	167.9218	9.2781	177.1998		664,925.4682	664,925.4682	17.4452		665,291.8179
Total	**764.7994**	**467.7414**	**3,042.9542**	**9.9359**	**628.5031**	**17.4459**	**645.9490**	**167.9218**	**16.6821**	**184.6039**	**0.0000**	**739,322.2439**	**739,322.2439**	**19.7085**	**1.3476**	**740,153.8645**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45

Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6078	0.0000	7.6078	3.5073	0.0000	3.5073			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**7.6078**	**3.5842**	**11.1920**	**3.5073**	**3.2975**	**6.8048**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4235	0.0000	3.4235	1.5783	0.0000	1.5783			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**3.4235**	**3.5842**	**7.0077**	**1.5783**	**3.2975**	**4.8758**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	22.8051	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**22.8051**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	16.2371	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**16.2371**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	13.7302	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**13.7302**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	1.7480	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**1.7480**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	1.6046	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**1.6046**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	10.1285	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**10.1285**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.2215	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.2215**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**7.1510**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**		**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	5.7208	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**5.7208**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**4.7892**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**		**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	3.8313	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**3.8313**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.6062	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.6062**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	316.4413	401.5533	2,502.7747	9.5421	628.5031	10.0419	638.5449	167.9218	9.2781	177.1998		664,925.4682	664,925.4682	17.4452		665,291.8179
Unmitigated	316.4413	401.5533	2,502.7747	9.5421	628.5031	10.0419	638.5449	167.9218	9.2781	177.1998		664,925.4682	664,925.4682	17.4452		665,291.8179

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	49,289,945	49,289,945
Arena	201.81	201.81	201.81	263,992	263,992
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	86,015,162	86,015,162
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,362,626	2,362,626
Hospital	30,319.32	30,319.32	30319.32	64,014,563	64,014,563
Hotel	8,987.00	8,987.00	8987.00	13,914,011	13,914,011
Strip Mall	53,395.00	53,395.00	53395.00	80,817,860	80,817,860
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	169,692.62	169,692.62	169,692.62	296,678,160	296,678,160

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.80	3.40	4.42	46.50	12.50	41.00	100	0	0
Arena	6.80	3.40	4.42	0.00	81.00	19.00	100	0	0
City Park	6.80	3.40	4.42	33.00	48.00	19.00	100	0	0
General Office Building	6.80	3.40	4.42	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	6.80	3.40	4.42	13.60	67.40	19.00	100	0	0
Hospital	6.80	3.40	4.42	64.90	16.10	19.00	100	0	0
Hotel	6.80	3.40	4.42	19.40	61.60	19.00	100	0	0
Strip Mall	6.80	3.40	4.42	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	6.80	3.40	4.42	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
NaturalGas Unmitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33477.3	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130440	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11083.2	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130.44	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179.187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138.322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11.0832	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130.063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Arena	33.4773	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Unmitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Railyards Land Use Varient - Construction and Operations

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5,709.00	1000sqft	131.06	5,709,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	7,000.00	Dwelling Unit	184.21	7,000,000.00	18690
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	1,272.00	1000sqft	29.20	1,272,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Trips and VMT - Assumed 750,000 cy are soil would be imported to the project site during grading.

Grading -

Vehicle Trips - Adusted the trip rates and trip length to match the VMT that was provided by F&P

Energy Use - Adjusted the energy intensity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	NumDays	7,750.00	4,099.00
tblConstructionPhase	NumDays	775.00	261.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.90
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	34.77	26.10
tblEnergyUse	T24NG	4.72	3.54
tblGrading	MaterialImported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00

tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.88
tblVehicleTrips	HS_TL	5.00	3.75
tblVehicleTrips	HW_TL	10.00	7.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.02
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.02
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	44.32	59.02

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.0774	20.5691	23.2911	0.0376	1.9043	0.6227	2.5269	0.6716	0.5727	1.2443	0.0000	3,439.1530	3,439.1530	0.2492	0.0000	3,444.3869
2017	7.2904	30.7636	90.9042	0.1660	9.9426	0.6396	10.5822	2.6799	0.5925	3.2724	0.0000	13,093.1418	13,093.1418	0.4758	0.0000	13,103.1336
2018	6.2800	27.7477	82.3188	0.1664	9.9805	0.5751	10.5555	2.6900	0.5330	3.2231	0.0000	12,767.1613	12,767.1613	0.4468	0.0000	12,776.5438
2019	5.7115	25.2365	76.9650	0.1658	9.9809	0.5230	10.5039	2.6902	0.4848	3.1750	0.0000	12,397.5858	12,397.5858	0.4215	0.0000	12,406.4378
2020	5.1069	22.2628	71.5720	0.1663	10.0195	0.4703	10.4899	2.7006	0.4361	3.1367	0.0000	12,054.2386	12,054.2386	0.4038	0.0000	12,062.7193
2021	4.7272	19.0353	67.4870	0.1656	9.9818	0.4219	10.4037	2.6905	0.3911	3.0816	0.0000	11,899.7431	11,899.7431	0.3874	0.0000	11,907.8780
2022	4.4991	17.1009	64.4222	0.1650	9.9443	0.3969	10.3412	2.6805	0.3678	3.0483	0.0000	11,762.4916	11,762.4916	0.3743	0.0000	11,770.3522
2023	4.2424	15.5839	61.3414	0.1649	9.9449	0.3689	10.3138	2.6807	0.3417	3.0224	0.0000	11,678.0242	11,678.0242	0.3618	0.0000	11,685.6221
2024	4.1268	15.3265	59.8184	0.1662	10.0221	0.3619	10.3840	2.7016	0.3351	3.0367	0.0000	11,700.0184	11,700.0184	0.3558	0.0000	11,707.4909
2025	3.9774	14.9166	57.8567	0.1656	9.9843	0.3506	10.3350	2.6915	0.3245	3.0160	0.0000	11,595.9010	11,595.9010	0.3472	0.0000	11,603.1915
2026	3.8777	14.7031	56.4428	0.1657	9.9848	0.3513	10.3361	2.6917	0.3251	3.0168	0.0000	11,545.9664	11,545.9664	0.3414	0.0000	11,553.1352
2027	3.7935	14.5269	55.2651	0.1657	9.9853	0.3523	10.3376	2.6919	0.3260	3.0179	0.0000	11,503.0716	11,503.0716	0.3362	0.0000	11,510.1323
2028	3.6912	14.3123	53.8910	0.1651	9.9475	0.3516	10.2991	2.6817	0.3254	3.0071	0.0000	11,421.9689	11,421.9689	0.3303	0.0000	11,428.9054
2029	3.6276	14.2264	53.1148	0.1658	9.9861	0.3534	10.3396	2.6922	0.3271	3.0192	0.0000	11,434.2748	11,434.2748	0.3271	0.0000	11,441.1440
2030	3.5534	13.5124	52.4229	0.1663	9.9865	0.3046	10.2911	2.6923	0.2823	2.9746	0.0000	11,448.2623	11,448.2623	0.2660	0.0000	11,453.8480

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2031	3.4937	13.4021	51.7913	0.1664	9.9870	0.3050	10.2920	2.6925	0.2827	2.9752	0.0000	11,427.3889	11,427.3889	0.2623	0.0000	11,432.8969
2032	2.5015	9.7489	37.1242	0.1197	7.1217	0.2300	7.3516	1.9200	0.2140	2.1341	0.0000	8,224.0188	8,224.0188	0.1889	0.0000	8,227.9858
2033	14.7075	0.8457	2.3577	6.0800e-003	0.2509	0.0382	0.2891	0.0667	0.0381	0.1048	0.0000	436.1608	436.1608	0.0187	0.0000	436.5532
2034	99.5762	0.4603	4.0764	0.0198	1.6327	0.0152	1.6479	0.4342	0.0143	0.4486	0.0000	1,133.5251	1,133.5251	0.0413	0.0000	1,134.3921
Total	**186.8611**	**304.2808**	**1,022.4631**	**2.6698**	**160.5876**	**7.0326**	**167.6201**	**43.4404**	**6.5142**	**49.9546**	**0.0000**	**190,962.0962**	**190,962.0962**	**5.9358**	**0.0000**	**191,086.7487**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.0774	18.6165	23.2911	0.0376	1.2391	0.6227	1.8618	0.4070	0.5727	0.9797	0.0000	3,439.1521	3,439.1521	0.2492	0.0000	3,444.3860
2017	7.2904	30.0771	90.9042	0.1660	9.9426	0.6396	10.5822	2.6799	0.5925	3.2724	0.0000	13,093.1414	13,093.1414	0.4758	0.0000	13,103.1332
2018	6.2800	27.1406	82.3188	0.1664	9.9805	0.5751	10.5555	2.6900	0.5330	3.2231	0.0000	12,767.1609	12,767.1609	0.4468	0.0000	12,776.5434
2019	5.7115	24.6893	76.9649	0.1658	9.9809	0.5230	10.5039	2.6902	0.4848	3.1750	0.0000	12,397.5854	12,397.5854	0.4215	0.0000	12,406.4374
2020	5.1069	21.7628	71.5720	0.1663	10.0195	0.4703	10.4899	2.7006	0.4361	3.1367	0.0000	12,054.2382	12,054.2382	0.4038	0.0000	12,062.7189
2021	4.7272	18.5827	67.4870	0.1656	9.9818	0.4219	10.4037	2.6905	0.3911	3.0816	0.0000	11,899.7427	11,899.7427	0.3874	0.0000	11,907.8776
2022	4.4991	16.6969	64.4222	0.1650	9.9443	0.3969	10.3412	2.6805	0.3678	3.0483	0.0000	11,762.4913	11,762.4913	0.3743	0.0000	11,770.3519
2023	4.2424	15.2117	61.3414	0.1649	9.9449	0.3689	10.3138	2.6807	0.3417	3.0224	0.0000	11,678.0239	11,678.0239	0.3618	0.0000	11,685.6217

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	4.1268	14.9760	59.8184	0.1662	10.0221	0.3619	10.3840	2.7016	0.3351	3.0367	0.0000	11,700.0180	11,700.0180	0.3558	0.0000	11,707.4905
2025	3.9774	14.5927	57.8567	0.1656	9.9843	0.3506	10.3350	2.6915	0.3245	3.0160	0.0000	11,595.9007	11,595.9007	0.3472	0.0000	11,603.1912
2026	3.8777	14.3792	56.4428	0.1657	9.9848	0.3513	10.3361	2.6917	0.3251	3.0168	0.0000	11,545.9660	11,545.9660	0.3414	0.0000	11,553.1348
2027	3.7935	14.2030	55.2651	0.1657	9.9853	0.3523	10.3376	2.6919	0.3260	3.0179	0.0000	11,503.0713	11,503.0713	0.3362	0.0000	11,510.1319
2028	3.6912	13.9896	53.8910	0.1651	9.9475	0.3516	10.2991	2.6817	0.3254	3.0071	0.0000	11,421.9685	11,421.9685	0.3303	0.0000	11,428.9051
2029	3.6276	13.9025	53.1148	0.1658	9.9861	0.3534	10.3396	2.6922	0.3271	3.0192	0.0000	11,434.2745	11,434.2745	0.3271	0.0000	11,441.1436
2030	3.5534	13.3057	52.4229	0.1663	9.9865	0.3046	10.2911	2.6923	0.2823	2.9746	0.0000	11,448.2619	11,448.2619	0.2660	0.0000	11,453.8476
2031	3.4937	13.1955	51.7913	0.1664	9.9870	0.3050	10.2920	2.6925	0.2827	2.9752	0.0000	11,427.3885	11,427.3885	0.2623	0.0000	11,432.8965
2032	2.5015	9.5486	37.1242	0.1197	7.1217	0.2300	7.3516	1.9200	0.2140	2.1341	0.0000	8,224.0184	8,224.0184	0.1889	0.0000	8,227.9854
2033	14.7075	0.6875	2.3577	6.0800e-003	0.2509	0.0382	0.2891	0.0667	0.0381	0.1048	0.0000	436.1605	436.1605	0.0187	0.0000	436.5529
2034	99.5762	0.4380	4.0764	0.0198	1.6327	0.0152	1.6479	0.4342	0.0143	0.4486	0.0000	1,133.5250	1,133.5250	0.0413	0.0000	1,134.3920
Total	**186.8611**	**295.9959**	**1,022.4630**	**2.6698**	**159.9224**	**7.0326**	**166.9550**	**43.1758**	**6.5142**	**49.6900**	**0.0000**	**190,962.0891**	**190,962.0891**	**5.9358**	**0.0000**	**191,086.7415**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.72**	**0.00**	**0.00**	**0.41**	**0.00**	**0.40**	**0.61**	**0.00**	**0.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	80.1856	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930
Energy	0.9287	8.2795	5.8970	0.0507		0.6416	0.6416		0.6416	0.6416	0.0000	46,917.5161	46,917.5161	2.0296	0.5520	47,131.2431
Mobile	53.3165	84.5779	481.8298	1.7565	121.3836	1.9923	123.3759	32.5239	1.8407	34.3646	0.0000	111,770.1945	111,770.1945	3.1476	0.0000	111,836.2950
Waste						0.0000	0.0000		0.0000	0.0000	2,530.4549	0.0000	2,530.4549	149.5456	0.0000	5,670.9125
Water						0.0000	0.0000		0.0000	0.0000	568.2821	3,093.3831	3,661.6652	2.1079	1.2673	4,098.7853
Total	**134.4307**	**93.6883**	**559.7669**	**1.8109**	**121.3836**	**3.0346**	**124.4182**	**32.5239**	**2.8830**	**35.4069**	**3,098.7369**	**161,899.2182**	**164,997.9552**	**156.9435**	**1.8192**	**168,857.7290**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	80.1856	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930
Energy	0.9287	8.2795	5.8970	0.0507		0.6416	0.6416		0.6416	0.6416	0.0000	46,917.5161	46,917.5161	2.0296	0.5520	47,131.2431
Mobile	53.3165	84.5779	481.8298	1.7565	121.3836	1.9923	123.3759	32.5239	1.8407	34.3646	0.0000	111,770.1945	111,770.1945	3.1476	0.0000	111,836.2950
Waste						0.0000	0.0000		0.0000	0.0000	2,530.4549	0.0000	2,530.4549	149.5456	0.0000	5,670.9125
Water						0.0000	0.0000		0.0000	0.0000	568.2821	3,093.3831	3,661.6652	2.1154	1.2688	4,099.4199
Total	**134.4307**	**93.6883**	**559.7669**	**1.8109**	**121.3836**	**3.0346**	**124.4182**	**32.5239**	**2.8830**	**35.4069**	**3,098.7369**	**161,899.2182**	**164,997.9552**	**156.9510**	**1.8208**	**168,858.3636**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction	Building Construction	1/1/2017	9/16/2032	5	4099	
3	Paving	Paving	9/17/2032	11/8/2033	5	298	
4	Architectural Coating	Architectural Coating	11/9/2033	12/31/2034	5	298	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 652.5

Acres of Paving: 0

Residential Indoor: 14,175,000; Residential Outdoor: 4,725,000; Non-Residential Indoor: 15,097,500; Non-Residential Outdoor: 5,032,500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8,551.00	2,398.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1,710.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2094	0.0000	1.2094	0.4811	0.0000	0.4811	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	9.7632	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4542	759.4542	0.2291	0.0000	764.2649
Total	**0.8456**	**9.7632**	**6.4124**	**8.0500e-003**	**1.2094**	**0.4677**	**1.6772**	**0.4811**	**0.4303**	**0.9114**	**0.0000**	**759.4542**	**759.4542**	**0.2291**	**0.0000**	**764.2649**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5442	0.0000	0.5442	0.2165	0.0000	0.2165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8456	7.8105	6.4124	8.0500e-003		0.4677	0.4677		0.4303	0.4303	0.0000	759.4533	759.4533	0.2291	0.0000	764.2640
Total	**0.8456**	**7.8105**	**6.4124**	**8.0500e-003**	**0.5442**	**0.4677**	**1.0120**	**0.2165**	**0.4303**	**0.6468**	**0.0000**	**759.4533**	**759.4533**	**0.2291**	**0.0000**	**764.2640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2231	10.7955	16.7692	0.0293	0.6757	0.1548	0.8305	0.1855	0.1422	0.3277	0.0000	2,662.5913	2,662.5913	0.0192	0.0000	2,662.9954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7500e-003	0.0104	0.1095	2.3000e-004	0.0192	1.5000e-004	0.0193	5.1000e-003	1.3000e-004	5.2300e-003	0.0000	17.1074	17.1074	9.1000e-004	0.0000	17.1266
Total	**1.2318**	**10.8059**	**16.8786**	**0.0295**	**0.6948**	**0.1549**	**0.8498**	**0.1906**	**0.1424**	**0.3329**	**0.0000**	**2,679.6987**	**2,679.6987**	**0.0202**	**0.0000**	**2,680.1220**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
Total	**0.4033**	**3.4327**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3228**	**311.3228**	**0.0766**	**0.0000**	**312.9319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5811	23.3599	46.9693	0.0649	1.7784	0.3480	2.1264	0.5084	0.3197	0.8281	0.0000	5,783.8231	5,783.8231	0.0439	0.0000	5,784.7446
Worker	3.3060	3.9710	41.5781	0.0976	8.1642	0.0600	8.2243	2.1714	0.0554	2.2268	0.0000	6,997.9959	6,997.9959	0.3553	0.0000	7,005.4571
Total	**6.8871**	**27.3309**	**88.5475**	**0.1625**	**9.9426**	**0.4081**	**10.3507**	**2.6799**	**0.3750**	**3.0549**	**0.0000**	**12,781.8190**	**12,781.8190**	**0.3992**	**0.0000**	**12,790.2017**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	2.7462	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
Total	**0.4033**	**2.7462**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3225**	**311.3225**	**0.0766**	**0.0000**	**312.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5811	23.3599	46.9693	0.0649	1.7784	0.3480	2.1264	0.5084	0.3197	0.8281	0.0000	5,783.8231	5,783.8231	0.0439	0.0000	5,784.7446
Worker	3.3060	3.9710	41.5781	0.0976	8.1642	0.0600	8.2243	2.1714	0.0554	2.2268	0.0000	6,997.9959	6,997.9959	0.3553	0.0000	7,005.4571
Total	**6.8871**	**27.3309**	**88.5475**	**0.1625**	**9.9426**	**0.4081**	**10.3507**	**2.6799**	**0.3750**	**3.0549**	**0.0000**	**12,781.8190**	**12,781.8190**	**0.3992**	**0.0000**	**12,790.2017**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9701	21.1255	42.5282	0.0649	1.7848	0.3210	2.1058	0.5102	0.2951	0.8053	0.0000	5,698.8217	5,698.8217	0.0430	0.0000	5,699.7241
Worker	2.9616	3.5867	37.5026	0.0979	8.1956	0.0591	8.2547	2.1798	0.0547	2.2344	0.0000	6,759.3552	6,759.3552	0.3282	0.0000	6,766.2473
Total	**5.9317**	**24.7122**	**80.0308**	**0.1629**	**9.9805**	**0.3801**	**10.3605**	**2.6900**	**0.3497**	**3.0397**	**0.0000**	**12,458.1768**	**12,458.1768**	**0.3712**	**0.0000**	**12,465.9715**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	2.4284	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**2.4284**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9701	21.1255	42.5282	0.0649	1.7848	0.3210	2.1058	0.5102	0.2951	0.8053	0.0000	5,698.8217	5,698.8217	0.0430	0.0000	5,699.7241
Worker	2.9616	3.5867	37.5026	0.0979	8.1956	0.0591	8.2547	2.1798	0.0547	2.2344	0.0000	6,759.3552	6,759.3552	0.3282	0.0000	6,766.2473
Total	**5.9317**	**24.7122**	**80.0308**	**0.1629**	**9.9805**	**0.3801**	**10.3605**	**2.6900**	**0.3497**	**3.0397**	**0.0000**	**12,458.1768**	**12,458.1768**	**0.3712**	**0.0000**	**12,465.9715**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6879	19.2213	40.1958	0.0649	1.7853	0.2970	2.0823	0.5104	0.2730	0.7834	0.0000	5,606.4834	5,606.4834	0.0419	0.0000	5,607.3627
Worker	2.7167	3.2793	34.5350	0.0974	8.1956	0.0583	8.2540	2.1798	0.0541	2.2339	0.0000	6,485.5722	6,485.5722	0.3053	0.0000	6,491.9838
Total	**5.4046**	**22.5005**	**74.7307**	**0.1623**	**9.9809**	**0.3553**	**10.3362**	**2.6902**	**0.3271**	**3.0173**	**0.0000**	**12,092.0556**	**12,092.0556**	**0.3472**	**0.0000**	**12,099.3465**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.1888	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.1888**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6879	19.2213	40.1958	0.0649	1.7853	0.2970	2.0823	0.5104	0.2730	0.7834	0.0000	5,606.4834	5,606.4834	0.0419	0.0000	5,607.3627
Worker	2.7167	3.2793	34.5350	0.0974	8.1956	0.0583	8.2540	2.1798	0.0541	2.2339	0.0000	6,485.5722	6,485.5722	0.3053	0.0000	6,491.9838
Total	**5.4046**	**22.5005**	**74.7307**	**0.1623**	**9.9809**	**0.3553**	**10.3362**	**2.6902**	**0.3271**	**3.0173**	**0.0000**	**12,092.0556**	**12,092.0556**	**0.3472**	**0.0000**	**12,099.3465**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.5000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1514	302.1514	0.0736	0.0000	303.6973
Total	**0.2766**	**2.5000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1514**	**302.1514**	**0.0736**	**0.0000**	**303.6973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2829	16.7147	37.1516	0.0650	1.7925	0.2660	2.0584	0.5125	0.2446	0.7571	0.0000	5,499.4004	5,499.4004	0.0406	0.0000	5,500.2519
Worker	2.5475	3.0482	32.2185	0.0978	8.2270	0.0586	8.2856	2.1881	0.0543	2.2425	0.0000	6,252.6869	6,252.6869	0.2897	0.0000	6,258.7701
Total	**4.8303**	**19.7628**	**69.3701**	**0.1628**	**10.0195**	**0.3246**	**10.3441**	**2.7006**	**0.2990**	**2.9996**	**0.0000**	**11,752.0872**	**11,752.0872**	**0.3302**	**0.0000**	**11,759.0220**

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2766	2.0000	2.2019	3.5100e-003		0.1458	0.1458		0.1371	0.1371	0.0000	302.1510	302.1510	0.0736	0.0000	303.6969
Total	**0.2766**	**2.0000**	**2.2019**	**3.5100e-003**		**0.1458**	**0.1458**		**0.1371**	**0.1371**	**0.0000**	**302.1510**	**302.1510**	**0.0736**	**0.0000**	**303.6969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2829	16.7147	37.1516	0.0650	1.7925	0.2660	2.0584	0.5125	0.2446	0.7571	0.0000	5,499.4004	5,499.4004	0.0406	0.0000	5,500.2519
Worker	2.5475	3.0482	32.2185	0.0978	8.2270	0.0586	8.2856	2.1881	0.0543	2.2425	0.0000	6,252.6869	6,252.6869	0.2897	0.0000	6,258.7701
Total	**4.8303**	**19.7628**	**69.3701**	**0.1628**	**10.0195**	**0.3246**	**10.3441**	**2.7006**	**0.2990**	**2.9996**	**0.0000**	**11,752.0872**	**11,752.0872**	**0.3302**	**0.0000**	**11,759.0220**

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	2.2629	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0339	301.0339	0.0725	0.0000	302.5568
Total	**0.2471**	**2.2629**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0339**	**301.0339**	**0.0725**	**0.0000**	**302.5568**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0851	13.9364	35.2382	0.0647	1.7862	0.2386	2.0248	0.5108	0.2195	0.7303	0.0000	5,475.3452	5,475.3452	0.0401	0.0000	5,476.1877
Worker	2.3951	2.8360	30.0906	0.0974	8.1956	0.0587	8.2543	2.1798	0.0544	2.2342	0.0000	6,123.3640	6,123.3640	0.2747	0.0000	6,129.1334
Total	**4.4801**	**16.7724**	**65.3288**	**0.1621**	**9.9818**	**0.2973**	**10.2791**	**2.6905**	**0.2739**	**2.9645**	**0.0000**	**11,598.7092**	**11,598.7092**	**0.3149**	**0.0000**	**11,605.3212**

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2471	1.8103	2.1582	3.5000e-003		0.1246	0.1246		0.1172	0.1172	0.0000	301.0335	301.0335	0.0725	0.0000	302.5565
Total	**0.2471**	**1.8103**	**2.1582**	**3.5000e-003**		**0.1246**	**0.1246**		**0.1172**	**0.1172**	**0.0000**	**301.0335**	**301.0335**	**0.0725**	**0.0000**	**302.5565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0851	13.9364	35.2382	0.0647	1.7862	0.2386	2.0248	0.5108	0.2195	0.7303	0.0000	5,475.3452	5,475.3452	0.0401	0.0000	5,476.1877
Worker	2.3951	2.8360	30.0906	0.0974	8.1956	0.0587	8.2543	2.1798	0.0544	2.2342	0.0000	6,123.3640	6,123.3640	0.2747	0.0000	6,129.1334
Total	**4.4801**	**16.7724**	**65.3288**	**0.1621**	**9.9818**	**0.2973**	**10.2791**	**2.6905**	**0.2739**	**2.9645**	**0.0000**	**11,598.7092**	**11,598.7092**	**0.3149**	**0.0000**	**11,605.3212**

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Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	2.0197	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9946	299.9946	0.0718	0.0000	301.5017
Total	**0.2209**	**2.0197**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9946**	**299.9946**	**0.0718**	**0.0000**	**301.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0184	12.4275	34.0819	0.0644	1.7800	0.2334	2.0134	0.5091	0.2147	0.7238	0.0000	5,456.5662	5,456.5662	0.0406	0.0000	5,457.4188
Worker	2.2598	2.6536	28.2177	0.0970	8.1642	0.0588	8.2230	2.1714	0.0545	2.2260	0.0000	6,005.9308	6,005.9308	0.2620	0.0000	6,011.4318
Total	**4.2782**	**15.0811**	**62.2996**	**0.1615**	**9.9443**	**0.2922**	**10.2365**	**2.6805**	**0.2693**	**2.9498**	**0.0000**	**11,462.4970**	**11,462.4970**	**0.3026**	**0.0000**	**11,468.8505**

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	1.6158	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9943	299.9943	0.0718	0.0000	301.5013
Total	**0.2209**	**1.6158**	**2.1226**	**3.4900e-003**		**0.1047**	**0.1047**		**0.0986**	**0.0986**	**0.0000**	**299.9943**	**299.9943**	**0.0718**	**0.0000**	**301.5013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0184	12.4275	34.0819	0.0644	1.7800	0.2334	2.0134	0.5091	0.2147	0.7238	0.0000	5,456.5662	5,456.5662	0.0406	0.0000	5,457.4188
Worker	2.2598	2.6536	28.2177	0.0970	8.1642	0.0588	8.2230	2.1714	0.0545	2.2260	0.0000	6,005.9308	6,005.9308	0.2620	0.0000	6,011.4318
Total	**4.2782**	**15.0811**	**62.2996**	**0.1615**	**9.9443**	**0.2922**	**10.2365**	**2.6805**	**0.2693**	**2.9498**	**0.0000**	**11,462.4970**	**11,462.4970**	**0.3026**	**0.0000**	**11,468.8505**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.8606	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0980	300.0980	0.0713	0.0000	301.5949
Total	**0.2036**	**1.8606**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0980**	**300.0980**	**0.0713**	**0.0000**	**301.5949**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8910	11.2168	32.5525	0.0644	1.7807	0.2191	1.9997	0.5093	0.2016	0.7109	0.0000	5,455.6947	5,455.6947	0.0386	0.0000	5,456.5042
Worker	2.1478	2.5064	26.6817	0.0970	8.1642	0.0592	8.2234	2.1714	0.0549	2.2263	0.0000	5,922.2316	5,922.2316	0.2520	0.0000	5,927.5230
Total	**4.0388**	**13.7232**	**59.2342**	**0.1614**	**9.9449**	**0.2783**	**10.2232**	**2.6807**	**0.2565**	**2.9372**	**0.0000**	**11,377.9262**	**11,377.9262**	**0.2905**	**0.0000**	**11,384.0272**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.4885	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0976	300.0976	0.0713	0.0000	301.5946
Total	**0.2036**	**1.4885**	**2.1072**	**3.4900e-003**		**0.0906**	**0.0906**		**0.0852**	**0.0852**	**0.0000**	**300.0976**	**300.0976**	**0.0713**	**0.0000**	**301.5946**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8910	11.2168	32.5525	0.0644	1.7807	0.2191	1.9997	0.5093	0.2016	0.7109	0.0000	5,455.6947	5,455.6947	0.0386	0.0000	5,456.5042
Worker	2.1478	2.5064	26.6817	0.0970	8.1642	0.0592	8.2234	2.1714	0.0549	2.2263	0.0000	5,922.2316	5,922.2316	0.2520	0.0000	5,927.5230
Total	**4.0388**	**13.7232**	**59.2342**	**0.1614**	**9.9449**	**0.2783**	**10.2232**	**2.6807**	**0.2565**	**2.9372**	**0.0000**	**11,377.9262**	**11,377.9262**	**0.2905**	**0.0000**	**11,384.0272**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.7524	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4646	302.4646	0.0714	0.0000	303.9643
Total	**0.1920**	**1.7524**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4646**	**302.4646**	**0.0714**	**0.0000**	**303.9643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8699	11.1740	32.0963	0.0649	1.7951	0.2218	2.0169	0.5135	0.2041	0.7176	0.0000	5,504.0150	5,504.0150	0.0390	0.0000	5,504.8344
Worker	2.0650	2.4001	25.6087	0.0978	8.2270	0.0601	8.2872	2.1881	0.0558	2.2439	0.0000	5,893.5389	5,893.5389	0.2454	0.0000	5,898.6922
Total	**3.9349**	**13.5741**	**57.7050**	**0.1627**	**10.0221**	**0.2819**	**10.3040**	**2.7016**	**0.2599**	**2.9615**	**0.0000**	**11,397.5538**	**11,397.5538**	**0.2844**	**0.0000**	**11,403.5266**

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1920	1.4020	2.1135	3.5200e-003		0.0800	0.0800		0.0752	0.0752	0.0000	302.4642	302.4642	0.0714	0.0000	303.9639
Total	**0.1920**	**1.4020**	**2.1135**	**3.5200e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**302.4642**	**302.4642**	**0.0714**	**0.0000**	**303.9639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8699	11.1740	32.0963	0.0649	1.7951	0.2218	2.0169	0.5135	0.2041	0.7176	0.0000	5,504.0150	5,504.0150	0.0390	0.0000	5,504.8344
Worker	2.0650	2.4001	25.6087	0.0978	8.2270	0.0601	8.2872	2.1881	0.0558	2.2439	0.0000	5,893.5389	5,893.5389	0.2454	0.0000	5,898.6922
Total	**3.9349**	**13.5741**	**57.7050**	**0.1627**	**10.0221**	**0.2819**	**10.3040**	**2.7016**	**0.2599**	**2.9615**	**0.0000**	**11,397.5538**	**11,397.5538**	**0.2844**	**0.0000**	**11,403.5266**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8248	11.0102	31.2990	0.0647	1.7887	0.2217	2.0104	0.5117	0.2040	0.7157	0.0000	5,487.7199	5,487.7199	0.0390	0.0000	5,488.5389
Worker	1.9750	2.2870	24.4629	0.0974	8.1956	0.0604	8.2561	2.1798	0.0561	2.2358	0.0000	5,806.7793	5,806.7793	0.2374	0.0000	5,811.7652
Total	**3.7998**	**13.2972**	**55.7619**	**0.1621**	**9.9843**	**0.2821**	**10.2665**	**2.6915**	**0.2600**	**2.9515**	**0.0000**	**11,294.4991**	**11,294.4991**	**0.2764**	**0.0000**	**11,300.3041**

3.3 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8248	11.0102	31.2990	0.0647	1.7887	0.2217	2.0104	0.5117	0.2040	0.7157	0.0000	5,487.7199	5,487.7199	0.0390	0.0000	5,488.5389
Worker	1.9750	2.2870	24.4629	0.0974	8.1956	0.0604	8.2561	2.1798	0.0561	2.2358	0.0000	5,806.7793	5,806.7793	0.2374	0.0000	5,811.7652
Total	**3.7998**	**13.2972**	**55.7619**	**0.1621**	**9.9843**	**0.2821**	**10.2665**	**2.6915**	**0.2600**	**2.9515**	**0.0000**	**11,294.4991**	**11,294.4991**	**0.2764**	**0.0000**	**11,300.3041**

3.3 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7971	10.8834	30.7583	0.0648	1.7892	0.2217	2.0109	0.5119	0.2040	0.7159	0.0000	5,492.6124	5,492.6124	0.0391	0.0000	5,493.4327
Worker	1.9029	2.2003	23.5897	0.0974	8.1956	0.0611	8.2567	2.1798	0.0567	2.2364	0.0000	5,751.9521	5,751.9521	0.2316	0.0000	5,756.8151
Total	**3.7000**	**13.0836**	**54.3480**	**0.1622**	**9.9848**	**0.2828**	**10.2676**	**2.6917**	**0.2607**	**2.9523**	**0.0000**	**11,244.5645**	**11,244.5645**	**0.2706**	**0.0000**	**11,250.2478**

3.3 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7971	10.8834	30.7583	0.0648	1.7892	0.2217	2.0109	0.5119	0.2040	0.7159	0.0000	5,492.6124	5,492.6124	0.0391	0.0000	5,493.4327
Worker	1.9029	2.2003	23.5897	0.0974	8.1956	0.0611	8.2567	2.1798	0.0567	2.2364	0.0000	5,751.9521	5,751.9521	0.2316	0.0000	5,756.8151
Total	**3.7000**	**13.0836**	**54.3480**	**0.1622**	**9.9848**	**0.2828**	**10.2676**	**2.6917**	**0.2607**	**2.9523**	**0.0000**	**11,244.5645**	**11,244.5645**	**0.2706**	**0.0000**	**11,250.2478**

3.3 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7805	10.7841	30.3517	0.0648	1.7897	0.2222	2.0119	0.5121	0.2044	0.7165	0.0000	5,497.1538	5,497.1538	0.0392	0.0000	5,497.9762
Worker	1.8353	2.1234	22.8187	0.0974	8.1956	0.0616	8.2573	2.1798	0.0572	2.2370	0.0000	5,704.5159	5,704.5159	0.2263	0.0000	5,709.2687
Total	**3.6158**	**12.9074**	**53.1704**	**0.1622**	**9.9853**	**0.2838**	**10.2691**	**2.6919**	**0.2616**	**2.9535**	**0.0000**	**11,201.6697**	**11,201.6697**	**0.2655**	**0.0000**	**11,207.2448**

3.3 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7805	10.7841	30.3517	0.0648	1.7897	0.2222	2.0119	0.5121	0.2044	0.7165	0.0000	5,497.1538	5,497.1538	0.0392	0.0000	5,497.9762
Worker	1.8353	2.1234	22.8187	0.0974	8.1956	0.0616	8.2573	2.1798	0.0572	2.2370	0.0000	5,704.5159	5,704.5159	0.2263	0.0000	5,709.2687
Total	**3.6158**	**12.9074**	**53.1704**	**0.1622**	**9.9853**	**0.2838**	**10.2691**	**2.6919**	**0.2616**	**2.9535**	**0.0000**	**11,201.6697**	**11,201.6697**	**0.2655**	**0.0000**	**11,207.2448**

3.3 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2471	300.2471	0.0705	0.0000	301.7269
Total	**0.1770**	**1.6133**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2471**	**300.2471**	**0.0705**	**0.0000**	**301.7269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7482	10.6524	29.7435	0.0646	1.7832	0.2214	2.0047	0.5103	0.2037	0.7140	0.0000	5,479.5130	5,479.5130	0.0391	0.0000	5,480.3333
Worker	1.7660	2.0466	22.0608	0.0970	8.1642	0.0619	8.2261	2.1714	0.0574	2.2289	0.0000	5,642.2088	5,642.2088	0.2208	0.0000	5,646.8451
Total	**3.5142**	**12.6990**	**51.8043**	**0.1616**	**9.9475**	**0.2833**	**10.2308**	**2.6817**	**0.2612**	**2.9429**	**0.0000**	**11,121.7218**	**11,121.7218**	**0.2598**	**0.0000**	**11,127.1785**

3.3 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.2906	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2467	300.2467	0.0705	0.0000	301.7266
Total	**0.1770**	**1.2906**	**2.0867**	**3.4900e-003**		**0.0683**	**0.0683**		**0.0642**	**0.0642**	**0.0000**	**300.2467**	**300.2467**	**0.0705**	**0.0000**	**301.7266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7482	10.6524	29.7435	0.0646	1.7832	0.2214	2.0047	0.5103	0.2037	0.7140	0.0000	5,479.5130	5,479.5130	0.0391	0.0000	5,480.3333
Worker	1.7660	2.0466	22.0608	0.0970	8.1642	0.0619	8.2261	2.1714	0.0574	2.2289	0.0000	5,642.2088	5,642.2088	0.2208	0.0000	5,646.8451
Total	**3.5142**	**12.6990**	**51.8043**	**0.1616**	**9.9475**	**0.2833**	**10.2308**	**2.6817**	**0.2612**	**2.9429**	**0.0000**	**11,121.7218**	**11,121.7218**	**0.2598**	**0.0000**	**11,127.1785**

3.3 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	**0.1777**	**1.6195**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4019**	**301.4019**	**0.0707**	**0.0000**	**302.8874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7393	10.6184	29.5215	0.0649	1.7905	0.2224	2.0129	0.5124	0.2046	0.7170	0.0000	5,503.7318	5,503.7318	0.0393	0.0000	5,504.5563
Worker	1.7106	1.9886	21.4985	0.0974	8.1956	0.0625	8.2582	2.1798	0.0580	2.2378	0.0000	5,629.1411	5,629.1411	0.2171	0.0000	5,633.7003
Total	**3.4499**	**12.6070**	**51.0200**	**0.1623**	**9.9861**	**0.2849**	**10.2710**	**2.6922**	**0.2626**	**2.9548**	**0.0000**	**11,132.8729**	**11,132.8729**	**0.2564**	**0.0000**	**11,138.2566**

3.3 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.2956	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	**0.1777**	**1.2956**	**2.0948**	**3.5000e-003**		**0.0685**	**0.0685**		**0.0645**	**0.0645**	**0.0000**	**301.4015**	**301.4015**	**0.0707**	**0.0000**	**302.8871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7393	10.6184	29.5215	0.0649	1.7905	0.2224	2.0129	0.5124	0.2046	0.7170	0.0000	5,503.7318	5,503.7318	0.0393	0.0000	5,504.5563
Worker	1.7106	1.9886	21.4985	0.0974	8.1956	0.0625	8.2582	2.1798	0.0580	2.2378	0.0000	5,629.1411	5,629.1411	0.2171	0.0000	5,633.7003
Total	**3.4499**	**12.6070**	**51.0200**	**0.1623**	**9.9861**	**0.2849**	**10.2710**	**2.6922**	**0.2626**	**2.9548**	**0.0000**	**11,132.8729**	**11,132.8729**	**0.2564**	**0.0000**	**11,138.2566**

3.3 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7313	10.5503	29.3828	0.0649	1.7909	0.2225	2.0134	0.5126	0.2047	0.7173	0.0000	5,506.9933	5,506.9933	0.0393	0.0000	5,507.8189
Worker	1.6518	1.9288	20.9350	0.0974	8.1956	0.0628	8.2584	2.1798	0.0583	2.2380	0.0000	5,599.7409	5,599.7409	0.2130	0.0000	5,604.2131
Total	**3.3832**	**12.4791**	**50.3178**	**0.1623**	**9.9865**	**0.2853**	**10.2718**	**2.6923**	**0.2630**	**2.9553**	**0.0000**	**11,106.7342**	**11,106.7342**	**0.2523**	**0.0000**	**11,112.0320**

3.3 Building Construction - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7313	10.5503	29.3828	0.0649	1.7909	0.2225	2.0134	0.5126	0.2047	0.7173	0.0000	5,506.9933	5,506.9933	0.0393	0.0000	5,507.8189
Worker	1.6518	1.9288	20.9350	0.0974	8.1956	0.0628	8.2584	2.1798	0.0583	2.2380	0.0000	5,599.7409	5,599.7409	0.2130	0.0000	5,604.2131
Total	**3.3832**	**12.4791**	**50.3178**	**0.1623**	**9.9865**	**0.2853**	**10.2718**	**2.6923**	**0.2630**	**2.9553**	**0.0000**	**11,106.7342**	**11,106.7342**	**0.2523**	**0.0000**	**11,112.0320**

3.3 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7268	10.4958	29.2630	0.0650	1.7913	0.2228	2.0141	0.5127	0.2050	0.7177	0.0000	5,510.7053	5,510.7053	0.0394	0.0000	5,511.5320
Worker	1.5967	1.8731	20.4232	0.0974	8.1956	0.0630	8.2586	2.1798	0.0584	2.2382	0.0000	5,575.1555	5,575.1555	0.2092	0.0000	5,579.5489
Total	**3.3235**	**12.3688**	**49.6862**	**0.1623**	**9.9870**	**0.2858**	**10.2727**	**2.6925**	**0.2634**	**2.9559**	**0.0000**	**11,085.8608**	**11,085.8608**	**0.2486**	**0.0000**	**11,091.0808**

3.3 Building Construction - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	0.8266	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**0.8266**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7268	10.4958	29.2630	0.0650	1.7913	0.2228	2.0141	0.5127	0.2050	0.7177	0.0000	5,510.7053	5,510.7053	0.0394	0.0000	5,511.5320
Worker	1.5967	1.8731	20.4232	0.0974	8.1956	0.0630	8.2586	2.1798	0.0584	2.2382	0.0000	5,575.1555	5,575.1555	0.2092	0.0000	5,579.5489
Total	**3.3235**	**12.3688**	**49.6862**	**0.1623**	**9.9870**	**0.2858**	**10.2727**	**2.6925**	**0.2634**	**2.9559**	**0.0000**	**11,085.8608**	**11,085.8608**	**0.2486**	**0.0000**	**11,091.0808**

3.3 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.7364	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3879	243.3879	9.7700e-003	0.0000	243.5930
Total	**0.1213**	**0.7364**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3879**	**243.3879**	**9.7700e-003**	**0.0000**	**243.5930**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2262	7.4457	20.7799	0.0463	1.2769	0.1589	1.4359	0.3655	0.1462	0.5118	0.0000	3,929.6438	3,929.6438	0.0281	0.0000	3,930.2337
Worker	1.1018	1.3006	14.2441	0.0694	5.8406	0.0450	5.8855	1.5534	0.0417	1.5951	0.0000	3,958.5204	3,958.5204	0.1467	0.0000	3,961.6019
Total	**2.3280**	**8.7464**	**35.0241**	**0.1157**	**7.1175**	**0.2039**	**7.3214**	**1.9189**	**0.1880**	**2.1069**	**0.0000**	**7,888.1642**	**7,888.1642**	**0.1748**	**0.0000**	**7,891.8357**

3.3 Building Construction - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1213	0.5891	1.5002	2.8700e-003		0.0137	0.0137		0.0137	0.0137	0.0000	243.3876	243.3876	9.7700e-003	0.0000	243.5927
Total	**0.1213**	**0.5891**	**1.5002**	**2.8700e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**243.3876**	**243.3876**	**9.7700e-003**	**0.0000**	**243.5927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2262	7.4457	20.7799	0.0463	1.2769	0.1589	1.4359	0.3655	0.1462	0.5118	0.0000	3,929.6438	3,929.6438	0.0281	0.0000	3,930.2337
Worker	1.1018	1.3006	14.2441	0.0694	5.8406	0.0450	5.8855	1.5534	0.0417	1.5951	0.0000	3,958.5204	3,958.5204	0.1467	0.0000	3,961.6019
Total	**2.3280**	**8.7464**	**35.0241**	**0.1157**	**7.1175**	**0.2039**	**7.3214**	**1.9189**	**0.1880**	**2.1069**	**0.0000**	**7,888.1642**	**7,888.1642**	**0.1748**	**0.0000**	**7,891.8357**

3.4 Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2652	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6294	89.6294	4.2000e-003	0.0000	89.7176
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2652**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6294**	**89.6294**	**4.2000e-003**	**0.0000**	**89.7176**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	9.3000e-004	0.0102	5.0000e-005	4.1900e-003	3.0000e-005	4.2200e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	2.8373	2.8373	1.1000e-004	0.0000	2.8395
Total	**7.9000e-004**	**9.3000e-004**	**0.0102**	**5.0000e-005**	**4.1900e-003**	**3.0000e-005**	**4.2200e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**2.8373**	**2.8373**	**1.1000e-004**	**0.0000**	**2.8395**

3.4 Paving - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0515	0.2122	0.5897	1.0400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	89.6293	89.6293	4.2000e-003	0.0000	89.7175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0515**	**0.2122**	**0.5897**	**1.0400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**89.6293**	**89.6293**	**4.2000e-003**	**0.0000**	**89.7175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	9.3000e-004	0.0102	5.0000e-005	4.1900e-003	3.0000e-005	4.2200e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	2.8373	2.8373	1.1000e-004	0.0000	2.8395
Total	**7.9000e-004**	**9.3000e-004**	**0.0102**	**5.0000e-005**	**4.1900e-003**	**3.0000e-005**	**4.2200e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**2.8373**	**2.8373**	**1.1000e-004**	**0.0000**	**2.8395**

3.4 Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.7748	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8122	261.8122	0.0123	0.0000	262.0699
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.7748**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8122**	**261.8122**	**0.0123**	**0.0000**	**262.0699**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2400e-003	2.6600e-003	0.0293	1.5000e-004	0.0122	9.0000e-005	0.0123	3.2500e-003	9.0000e-005	3.3400e-003	0.0000	8.2627	8.2627	3.0000e-004	0.0000	8.2691
Total	**2.2400e-003**	**2.6600e-003**	**0.0293**	**1.5000e-004**	**0.0122**	**9.0000e-005**	**0.0123**	**3.2500e-003**	**9.0000e-005**	**3.3400e-003**	**0.0000**	**8.2627**	**8.2627**	**3.0000e-004**	**0.0000**	**8.2691**

3.4 Paving - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1504	0.6198	1.7226	3.0500e-003		0.0359	0.0359		0.0359	0.0359	0.0000	261.8119	261.8119	0.0123	0.0000	262.0696
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1504**	**0.6198**	**1.7226**	**3.0500e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**	**0.0000**	**261.8119**	**261.8119**	**0.0123**	**0.0000**	**262.0696**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2400e-003	2.6600e-003	0.0293	1.5000e-004	0.0122	9.0000e-005	0.0123	3.2500e-003	9.0000e-005	3.3400e-003	0.0000	8.2627	8.2627	3.0000e-004	0.0000	8.2691
Total	**2.2400e-003**	**2.6600e-003**	**0.0293**	**1.5000e-004**	**0.0122**	**9.0000e-005**	**0.0123**	**3.2500e-003**	**9.0000e-005**	**3.3400e-003**	**0.0000**	**8.2627**	**8.2627**	**3.0000e-004**	**0.0000**	**8.2691**

3.5 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0163	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**14.5110**	**0.0163**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0438	0.0520	0.5716	2.8300e-003	0.2386	1.8400e-003	0.2405	0.0635	1.7100e-003	0.0652	0.0000	161.2347	161.2347	5.9100e-003	0.0000	161.3589
Total	**0.0438**	**0.0520**	**0.5716**	**2.8300e-003**	**0.2386**	**1.8400e-003**	**0.2405**	**0.0635**	**1.7100e-003**	**0.0652**	**0.0000**	**161.2347**	**161.2347**	**5.9100e-003**	**0.0000**	**161.3589**

3.5 Architectural Coating - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	14.5086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0130	0.0342	6.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	4.8512	4.8512	2.0000e-004	0.0000	4.8553
Total	**14.5110**	**0.0130**	**0.0342**	**6.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**4.8512**	**4.8512**	**2.0000e-004**	**0.0000**	**4.8553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0438	0.0520	0.5716	2.8300e-003	0.2386	1.8400e-003	0.2405	0.0635	1.7100e-003	0.0652	0.0000	161.2347	161.2347	5.9100e-003	0.0000	161.3589
Total	**0.0438**	**0.0520**	**0.5716**	**2.8300e-003**	**0.2386**	**1.8400e-003**	**0.2405**	**0.0635**	**1.7100e-003**	**0.0652**	**0.0000**	**161.2347**	**161.2347**	**5.9100e-003**	**0.0000**	**161.3589**

3.5 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	99.2691					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**99.2861**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2901	0.3489	3.8427	0.0194	1.6327	0.0126	1.6453	0.4342	0.0117	0.4459	0.0000	1,100.3328	1,100.3328	0.0399	0.0000	1,101.1716
Total	**0.2901**	**0.3489**	**3.8427**	**0.0194**	**1.6327**	**0.0126**	**1.6453**	**0.4342**	**0.0117**	**0.4459**	**0.0000**	**1,100.3328**	**1,100.3328**	**0.0399**	**0.0000**	**1,101.1716**

3.5 Architectural Coating - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	99.2691					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.0891	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**99.2861**	**0.0891**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2901	0.3489	3.8427	0.0194	1.6327	0.0126	1.6453	0.4342	0.0117	0.4459	0.0000	1,100.3328	1,100.3328	0.0399	0.0000	1,101.1716
Total	**0.2901**	**0.3489**	**3.8427**	**0.0194**	**1.6327**	**0.0126**	**1.6453**	**0.4342**	**0.0117**	**0.4459**	**0.0000**	**1,100.3328**	**1,100.3328**	**0.0399**	**0.0000**	**1,101.1716**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	53.3165	84.5779	481.8298	1.7565	121.3836	1.9923	123.3759	32.5239	1.8407	34.3646	0.0000	111,770.1945	111,770.1945	3.1476	0.0000	111,836.2950
Unmitigated	53.3165	84.5779	481.8298	1.7565	121.3836	1.9923	123.3759	32.5239	1.8407	34.3646	0.0000	111,770.1945	111,770.1945	3.1476	0.0000	111,836.2950

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	29,260.00	29,260.00	29260.00	63,424,561	63,424,561
City Park	0.00	0.00	0.00		
General Office Building	62,970.27	62,970.27	62970.27	119,218,779	119,218,779
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,605,838	2,605,838
Hotel	8,987.00	8,987.00	8987.00	15,346,336	15,346,336
Strip Mall	75,073.44	75,073.44	75073.44	125,327,225	125,327,225
Total	177,890.91	177,890.91	177,890.91	325,922,739	325,922,739

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	7.50	3.75	4.88	46.50	12.50	41.00	100	0	0
City Park	7.50	3.75	4.88	33.00	48.00	19.00	100	0	0
General Office Building	7.50	3.75	4.88	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	7.50	3.75	4.88	13.60	67.40	19.00	100	0	0
Hotel	7.50	3.75	4.88	19.40	61.60	19.00	100	0	0
Strip Mall	7.50	3.75	4.88	16.60	64.40	19.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	37,726.9323	37,726.9323	1.8534	0.3835	37,884.7270
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	37,726.9323	37,726.9323	1.8534	0.3835	37,884.7270
NaturalGas Mitigated	0.9287	8.2795	5.8970	0.0507		0.6416	0.6416		0.6416	0.6416	0.0000	9,190.5838	9,190.5838	0.1762	0.1685	9,246.5162
NaturalGas Unmitigated	0.9287	8.2795	5.8970	0.0507		0.6416	0.6416		0.6416	0.6416	0.0000	9,190.5838	9,190.5838	0.1762	0.1685	9,246.5162

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.53848e+007	0.2986	2.5521	1.0860	0.0163		0.2063	0.2063		0.2063	0.2063	0.0000	2,955.5460	2,955.5460	0.0567	0.0542	2,973.5329
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.98303e+007	0.3226	2.9329	2.4636	0.0176		0.2229	0.2229		0.2229	0.2229	0.0000	3,192.7737	3,192.7737	0.0612	0.0585	3,212.2044
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hotel	5.05194e+007	0.2724	2.4764	2.0802	0.0149		0.1882	0.1882		0.1882	0.1882	0.0000	2,695.9095	2,695.9095	0.0517	0.0494	2,712.3164
Strip Mall	5.68584e+006	0.0307	0.2787	0.2341	1.6700e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.4181	303.4181	5.8200e-003	5.5600e-003	305.2646
Total		**0.9287**	**8.2795**	**5.8970**	**0.0507**		**0.6416**	**0.6416**		**0.6416**	**0.6416**	**0.0000**	**9,190.5838**	**9,190.5838**	**0.1762**	**0.1685**	**9,246.5162**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.98303e+007	0.3226	2.9329	2.4636	0.0176		0.2229	0.2229		0.2229	0.2229	0.0000	3,192.7737	3,192.7737	0.0612	0.0585	3,212.2044
Hardware/Paint Store	804600	4.3400e-003	0.0394	0.0331	2.4000e-004		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003	0.0000	42.9365	42.9365	8.2000e-004	7.9000e-004	43.1978
Hotel	5.05194e+007	0.2724	2.4764	2.0802	0.0149		0.1882	0.1882		0.1882	0.1882	0.0000	2,695.9095	2,695.9095	0.0517	0.0494	2,712.3164
Strip Mall	5.68584e+006	0.0307	0.2787	0.2341	1.6700e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.4181	303.4181	5.8200e-003	5.5600e-003	305.2646
Apartments Mid Rise	5.53848e+007	0.2986	2.5521	1.0860	0.0163		0.2063	0.2063		0.2063	0.2063	0.0000	2,955.5460	2,955.5460	0.0567	0.0542	2,973.5329
Total		**0.9287**	**8.2795**	**5.8970**	**0.0507**		**0.6416**	**0.6416**		**0.6416**	**0.6416**	**0.0000**	**9,190.5838**	**9,190.5838**	**0.1762**	**0.1685**	**9,246.5162**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.47644e+007	6,630.9158	0.3258	0.0674	6,658.6500
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	8.28947e+007	22,195.8888	1.0904	0.2256	22,288.7242
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.52386e+007	4,080.2785	0.2005	0.0415	4,097.3445
Total		**37,726.9323**	**1.8534**	**0.3835**	**37,884.7270**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.47644e+007	6,630.9158	0.3258	0.0674	6,658.6500
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	8.28947e+007	22,195.8888	1.0904	0.2256	22,288.7242
Hardware/Paint Store	2.1564e+006	577.3979	0.0284	5.8700e-003	579.8129
Hotel	1.58442e+007	4,242.4512	0.2084	0.0431	4,260.1955
Strip Mall	1.52386e+007	4,080.2785	0.2005	0.0415	4,097.3445
Total		**37,726.9323**	**1.8534**	**0.3835**	**37,884.7270**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	80.1856	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930
Unmitigated	80.1856	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.3778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.6474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1605	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930
Total	**80.1856**	**0.8309**	**72.0401**	**3.8200e-003**		**0.4007**	**0.4007**		**0.4007**	**0.4007**	**0.0000**	**118.1246**	**118.1246**	**0.1128**	**0.0000**	**120.4930**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	11.3778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	66.6474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1605	0.8309	72.0401	3.8200e-003		0.4007	0.4007		0.4007	0.4007	0.0000	118.1246	118.1246	0.1128	0.0000	120.4930
Total	**80.1856**	**0.8309**	**72.0401**	**3.8200e-003**		**0.4007**	**0.4007**		**0.4007**	**0.4007**	**0.0000**	**118.1246**	**118.1246**	**0.1128**	**0.0000**	**120.4930**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3,661.6652	2.1154	1.2688	4,099.4199
Unmitigated	3,661.6652	2.1079	1.2673	4,098.7853

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	456.078 / 287.528	1,039.2935	0.5985	0.3598	1,163.4100
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	1014.68 / 621.902	2,295.5472	1.3308	0.8004	2,571.6118
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0175	0.0105	33.7913
Hotel	27.9034 / 3.10038	50.0050	0.0360	0.0219	57.5418
Strip Mall	94.2202 / 57.7479	213.1575	0.1236	0.0743	238.7920
Total		**3,661.6652**	**2.1079**	**1.2673**	**4,098.7853**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	456.078 / 287.528	1,039.2935	0.6006	0.3603	1,163.5902
City Park	0 / 35.7444	33.4983	1.6500e-003	3.4000e-004	33.6384
General Office Building	1014.68 / 621.902	2,295.5472	1.3355	0.8014	2,572.0127
Hardware/Paint Store	13.3331 / 8.17187	30.1638	0.0176	0.0105	33.7966
Hotel	27.9034 / 3.10038	50.0050	0.0361	0.0219	57.5528
Strip Mall	94.2202 / 57.7479	213.1575	0.1240	0.0744	238.8292
Total		**3,661.6652**	**2.1154**	**1.2688**	**4,099.4199**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2,530.4549	149.5456	0.0000	5,670.9125
Unmitigated	2,530.4549	149.5456	0.0000	5,670.9125

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	3220	653.6309	38.6285	0.0000	1,464.8290
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	5309.37	1,077.7541	63.6934	0.0000	2,415.3165
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	1335.6	271.1147	16.0224	0.0000	607.5856
Total		**2,530.4549**	**149.5456**	**0.0000**	**5,670.9125**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	3220	653.6309	38.6285	0.0000	1,464.8290
City Park	2.58	0.5237	0.0310	0.0000	1.1737
General Office Building	5309.37	1,077.7541	63.6934	0.0000	2,415.3165
Hardware/Paint Store	1996.05	405.1801	23.9455	0.0000	908.0347
Hotel	602.25	122.2513	7.2249	0.0000	273.9731
Strip Mall	1335.6	271.1147	16.0224	0.0000	607.5856
Total		**2,530.4549**	**149.5456**	**0.0000**	**5,670.9125**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Railyards Land Use Varient - Construction and Operations

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5,709.00	1000sqft	131.06	5,709,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	7,000.00	Dwelling Unit	184.21	7,000,000.00	18690
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	1,272.00	1000sqft	29.20	1,272,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Trips and VMT - Assumed 750,000 cy are soil would be imported to the project site during grading.

Grading -

Vehicle Trips - Adusted the trip rates and trip length to match the VMT that was provided by F&P

Energy Use - Adjusted the energy intensity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	NumDays	7,750.00	4,099.00
tblConstructionPhase	NumDays	775.00	261.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.90
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	34.77	26.10
tblEnergyUse	T24NG	4.72	3.54
tblGrading	MaterialImported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00

tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CC_TL	5.00	3.75
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CNW_TL	6.50	4.88
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	CW_TL	10.00	7.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	6.50	4.88
tblVehicleTrips	HS_TL	5.00	3.75
tblVehicleTrips	HW_TL	10.00	7.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.02
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.02
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	44.32	59.02

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	15.1339	152.6392	164.7814	0.2883	14.7590	4.7692	19.5282	5.1877	4.3862	9.5739	0.0000	29,095.7572	29,095.7572	2.1040	0.0000	29,139.9407
2017	58.6410	224.5349	690.1504	1.3590	79.1366	4.9037	84.0403	21.2660	4.5428	25.8087	0.0000	117,526.5687	117,526.5687	4.0295	0.0000	117,611.1879
2018	50.8443	201.8425	614.7981	1.3567	79.1335	4.3919	83.5254	21.2648	4.0708	25.3356	0.0000	114,110.5962	114,110.5962	3.7688	0.0000	114,189.7418
2019	46.4067	183.6688	570.9575	1.3520	79.1371	3.9941	83.1312	21.2661	3.7023	24.9683	0.0000	110,739.9260	110,739.9260	3.5554	0.0000	110,814.5887
2020	41.6930	161.4997	523.1285	1.3509	79.1399	3.5784	82.7182	21.2672	3.3177	24.5849	0.0000	107,218.6099	107,218.6099	3.3929	0.0000	107,289.8605
2021	38.8748	138.6481	492.4755	1.3503	79.1438	3.2223	82.3661	21.2687	2.9873	24.2560	0.0000	106,210.4931	106,210.4931	3.2667	0.0000	106,279.0930
2022	37.1523	125.0408	471.8383	1.3503	79.1492	3.0434	82.1926	21.2707	2.8203	24.0910	0.0000	105,352.0660	105,352.0660	3.1683	0.0000	105,418.6010
2023	35.1130	114.0244	450.3327	1.3500	79.1542	2.8301	81.9843	21.2726	2.6219	23.8945	0.0000	104,564.7494	104,564.7494	3.0623	0.0000	104,629.0584
2024	33.8666	111.3208	435.5011	1.3504	79.1595	2.7556	81.9150	21.2747	2.5514	23.8260	0.0000	103,931.5814	103,931.5814	2.9887	0.0000	103,994.3431
2025	32.7700	108.7785	422.9154	1.3507	79.1632	2.6797	81.8429	21.2761	2.4799	23.7560	0.0000	103,375.4278	103,375.4278	2.9269	0.0000	103,436.8932
2026	31.9277	107.2773	412.5608	1.3510	79.1669	2.6851	81.8520	21.2775	2.4849	23.7623	0.0000	102,907.6639	102,907.6639	2.8780	0.0000	102,968.1011
2027	31.1964	106.0386	403.7857	1.3514	79.1708	2.6927	81.8635	21.2790	2.4919	23.7709	0.0000	102,506.3780	102,506.3780	2.8345	0.0000	102,565.9013
2028	30.4520	104.9172	395.4932	1.3516	79.1739	2.6974	81.8713	21.2802	2.4963	23.7765	0.0000	102,159.7464	102,159.7464	2.7952	0.0000	102,218.4465
2029	29.7560	103.9282	388.0595	1.3519	79.1769	2.7012	81.8782	21.2814	2.4998	23.7812	0.0000	101,865.6075	101,865.6075	2.7574	0.0000	101,923.5133
2030	29.0651	98.5385	382.3297	1.3562	79.1799	2.3271	81.5070	21.2825	2.1565	23.4391	0.0000	101,961.4234	101,961.4234	2.2412	0.0000	102,008.4876

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	28.4891	97.7679	377.0764	1.3565	79.1833	2.3305	81.5138	21.2839	2.1597	23.4436	0.0000	101,766.2686	101,766.2686	2.2099	0.0000	101,812.6765
2032	27.9418	97.0971	372.5824	1.3568	79.1869	2.3333	81.5202	21.2853	2.1623	23.4476	0.0000	101,607.1465	101,607.1465	2.1825	0.0000	101,652.9780
2033	766.4752	7.0019	37.7690	0.1683	13.0080	0.3242	13.1251	3.4505	0.3242	3.5607	0.0000	10,643.4760	10,643.4760	0.3545	0.0000	10,650.9209
2034	766.3848	3.3014	37.1796	0.1683	13.0080	0.1172	13.1252	3.4505	0.1102	3.5607	0.0000	10,617.0832	10,617.0832	0.3501	0.0000	10,624.4346
Total	**2,132.1835**	**2,247.8657**	**7,643.7151**	**22.2705**	**1,307.3305**	**54.3770**	**1,361.5004**	**352.4853**	**50.3660**	**402.6373**	**0.0000**	**1,738,160.5690**	**1,738,160.5690**	**50.8666**	**0.0000**	**1,739,228.7679**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	15.1339	137.6765	164.7814	0.2883	9.6618	4.7692	14.4310	3.1601	4.3862	7.5463	0.0000	29,095.7572	29,095.7572	2.1040	0.0000	29,139.9407
2017	58.6410	219.2538	690.1504	1.3590	79.1366	4.9037	84.0403	21.2660	4.5428	25.8087	0.0000	117,526.5687	117,526.5687	4.0295	0.0000	117,611.1879
2018	50.8443	197.1903	614.7981	1.3567	79.1335	4.3919	83.5254	21.2648	4.0708	25.3356	0.0000	114,110.5962	114,110.5962	3.7688	0.0000	114,189.7418
2019	46.4067	179.4758	570.9575	1.3520	79.1371	3.9941	83.1312	21.2661	3.7023	24.9683	0.0000	110,739.9260	110,739.9260	3.5554	0.0000	110,814.5887
2020	41.6930	157.6829	523.1285	1.3509	79.1399	3.5784	82.7182	21.2672	3.3177	24.5849	0.0000	107,218.6099	107,218.6099	3.3929	0.0000	107,289.8605
2021	38.8748	135.1801	492.4755	1.3503	79.1438	3.2223	82.3661	21.2687	2.9873	24.2560	0.0000	106,210.4931	106,210.4931	3.2667	0.0000	106,279.0930
2022	37.1523	121.9336	471.8383	1.3503	79.1492	3.0434	82.1926	21.2707	2.8203	24.0910	0.0000	105,352.0660	105,352.0660	3.1683	0.0000	105,418.6010
2023	35.1130	111.1618	450.3327	1.3500	79.1542	2.8301	81.9843	21.2726	2.6219	23.8945	0.0000	104,564.7494	104,564.7494	3.0623	0.0000	104,629.0584

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	33.8666	108.6453	435.5011	1.3504	79.1595	2.7556	81.9150	21.2747	2.5514	23.8260	0.0000	103,931.5814	103,931.5814	2.9887	0.0000	103,994.3431
2025	32.7700	106.2966	422.9154	1.3507	79.1632	2.6797	81.8429	21.2761	2.4799	23.7560	0.0000	103,375.4278	103,375.4278	2.9269	0.0000	103,436.8932
2026	31.9277	104.7954	412.5608	1.3510	79.1669	2.6851	81.8520	21.2775	2.4849	23.7623	0.0000	102,907.6639	102,907.6639	2.8780	0.0000	102,968.1011
2027	31.1964	103.5567	403.7857	1.3514	79.1708	2.6927	81.8635	21.2790	2.4919	23.7709	0.0000	102,506.3780	102,506.3780	2.8345	0.0000	102,565.9013
2028	30.4520	102.4353	395.4932	1.3516	79.1739	2.6974	81.8713	21.2802	2.4963	23.7765	0.0000	102,159.7464	102,159.7464	2.7952	0.0000	102,218.4465
2029	29.7560	101.4463	388.0595	1.3519	79.1769	2.7012	81.8782	21.2814	2.4998	23.7812	0.0000	101,865.6075	101,865.6075	2.7574	0.0000	101,923.5133
2030	29.0651	96.9549	382.3297	1.3562	79.1799	2.3271	81.5070	21.2825	2.1565	23.4391	0.0000	101,961.4234	101,961.4234	2.2412	0.0000	102,008.4876
2031	28.4891	96.1843	377.0764	1.3565	79.1833	2.3305	81.5138	21.2839	2.1597	23.4436	0.0000	101,766.2686	101,766.2686	2.2099	0.0000	101,812.6765
2032	27.9418	95.5135	372.5824	1.3568	79.1869	2.3333	81.5202	21.2853	2.1623	23.4476	0.0000	101,607.1465	101,607.1465	2.1825	0.0000	101,652.9780
2033	766.4752	5.6059	37.7690	0.1683	13.0080	0.3242	13.1251	3.4505	0.3242	3.5607	0.0000	10,643.4760	10,643.4760	0.3545	0.0000	10,650.9209
2034	766.3848	3.1301	37.1796	0.1683	13.0080	0.1172	13.1252	3.4505	0.1102	3.5607	0.0000	10,617.0832	10,617.0832	0.3501	0.0000	10,624.4346
Total	**2,132.1835**	**2,184.1189**	**7,643.7151**	**22.2705**	**1,302.2333**	**54.3770**	**1,356.4033**	**350.4577**	**50.3660**	**400.6097**	**0.0000**	**1,738,160.5690**	**1,738,160.5690**	**50.8666**	**0.0000**	**1,739,228.7679**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.84**	**0.00**	**0.00**	**0.39**	**0.00**	**0.37**	**0.58**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Energy	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
Mobile	334.9040	434.7688	2,713.2655	10.4611	690.4567	10.9374	701.3942	184.4744	10.1052	194.5796		728,937.4425	728,937.4425	19.0694		729,337.8994
Total	**784.8111**	**486.7829**	**3,321.8987**	**10.7692**	**690.4567**	**17.6588**	**708.1155**	**184.4744**	**16.8265**	**201.3009**	**0.0000**	**785,490.8188**	**785,490.8188**	**21.1279**	**1.0177**	**786,249.9966**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Energy	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
Mobile	334.9040	434.7688	2,713.2655	10.4611	690.4567	10.9374	701.3942	184.4744	10.1052	194.5796		728,937.4425	728,937.4425	19.0694		729,337.8994
Total	**784.8111**	**486.7829**	**3,321.8987**	**10.7692**	**690.4567**	**17.6588**	**708.1155**	**184.4744**	**16.8265**	**201.3009**	**0.0000**	**785,490.8188**	**785,490.8188**	**21.1279**	**1.0177**	**786,249.9966**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction	Building Construction	1/1/2017	9/16/2032	5	4099	
3	Paving	Paving	9/17/2032	11/8/2033	5	298	
4	Architectural Coating	Architectural Coating	11/9/2033	12/31/2034	5	298	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 652.5

Acres of Paving: 0

Residential Indoor: 14,175,000; Residential Outdoor: 4,725,000; Non-Residential Indoor: 15,097,500; Non-Residential Outdoor: 5,032,500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8,551.00	2,398.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1,710.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2676	0.0000	9.2676	3.6865	0.0000	3.6865			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**9.2676**	**3.5842**	**12.8518**	**3.6865**	**3.2975**	**6.9840**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1704	0.0000	4.1704	1.6589	0.0000	1.6589			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**4.1704**	**3.5842**	**7.7547**	**1.6589**	**3.2975**	**4.9564**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	24.9837	170.5727	302.6097	0.5004	14.0892	2.6607	16.7499	4.0115	2.4439	6.4554		49,223.7110	49,223.7110	0.3671		49,231.4206
Worker	30.5549	27.5566	369.4116	0.8318	65.0474	0.4618	65.5092	17.2544	0.4260	17.6804		65,663.0524	65,663.0524	3.0127		65,726.3183
Total	**55.5387**	**198.1293**	**672.0213**	**1.3322**	**79.1366**	**3.1225**	**82.2591**	**21.2660**	**2.8698**	**24.1358**		**114,886.7634**	**114,886.7634**	**3.3798**		**114,957.7389**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	24.9837	170.5727	302.6097	0.5004	14.0892	2.6607	16.7499	4.0115	2.4439	6.4554		49,223.7110	49,223.7110	0.3671		49,231.4206
Worker	30.5549	27.5566	369.4116	0.8318	65.0474	0.4618	65.5092	17.2544	0.4260	17.6804		65,663.0524	65,663.0524	3.0127		65,726.3183
Total	**55.5387**	**198.1293**	**672.0213**	**1.3322**	**79.1366**	**3.1225**	**82.2591**	**21.2660**	**2.8698**	**24.1358**		**114,886.7634**	**114,886.7634**	**3.3798**		**114,957.7389**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	20.7651	153.7546	264.0672	0.4983	14.0861	2.4450	16.5310	4.0103	2.2471	6.2575		48,315.1927	48,315.1927	0.3579		48,322.7087
Worker	27.4105	24.8270	333.1982	0.8316	65.0474	0.4527	65.5000	17.2544	0.4189	17.6733		63,185.4645	63,185.4645	2.7722		63,243.6814
Total	**48.1756**	**178.5816**	**597.2654**	**1.3299**	**79.1335**	**2.8976**	**82.0311**	**21.2648**	**2.6660**	**23.9308**		**111,500.6572**	**111,500.6572**	**3.1301**		**111,566.3901**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	20.7651	153.7546	264.0672	0.4983	14.0861	2.4450	16.5310	4.0103	2.2471	6.2575		48,315.1927	48,315.1927	0.3579		48,322.7087
Worker	27.4105	24.8270	333.1982	0.8316	65.0474	0.4527	65.5000	17.2544	0.4189	17.6733		63,185.4645	63,185.4645	2.7722		63,243.6814
Total	**48.1756**	**178.5816**	**597.2654**	**1.3299**	**79.1335**	**2.8976**	**82.0311**	**21.2648**	**2.6660**	**23.9308**		**111,500.6572**	**111,500.6572**	**3.1301**		**111,566.3901**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	18.8516	139.9857	245.9547	0.4979	14.0897	2.2620	16.3517	4.0117	2.0795	6.0912		47,532.5923	47,532.5923	0.3485		47,539.9111
Worker	25.2034	22.7181	307.8825	0.8273	65.0474	0.4471	65.4945	17.2544	0.4145	17.6689		60,626.5719	60,626.5719	2.5789		60,680.7297
Total	**44.0550**	**162.7037**	**553.8371**	**1.3252**	**79.1371**	**2.7091**	**81.8462**	**21.2661**	**2.4940**	**23.7601**		**108,159.1642**	**108,159.1642**	**2.9275**		**108,220.6408**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	18.8516	139.9857	245.9547	0.4979	14.0897	2.2620	16.3517	4.0117	2.0795	6.0912		47,532.5923	47,532.5923	0.3485		47,539.9111
Worker	25.2034	22.7181	307.8825	0.8273	65.0474	0.4471	65.4945	17.2544	0.4145	17.6689		60,626.5719	60,626.5719	2.5789		60,680.7297
Total	**44.0550**	**162.7037**	**553.8371**	**1.3252**	**79.1371**	**2.7091**	**81.8462**	**21.2661**	**2.4940**	**23.7601**		**108,159.1642**	**108,159.1642**	**2.9275**		**108,220.6408**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.0370	121.3627	219.4013	0.4969	14.0925	2.0182	16.1107	4.0128	1.8564	5.8692		46,447.3138	46,447.3138	0.3359		46,454.3687
Worker	23.5447	21.0531	286.9188	0.8272	65.0474	0.4473	65.4947	17.2544	0.4148	17.6693		58,228.8161	58,228.8161	2.4375		58,280.0038
Total	**39.5817**	**142.4158**	**506.3201**	**1.3241**	**79.1399**	**2.4655**	**81.6054**	**21.2672**	**2.2712**	**23.5384**		**104,676.1300**	**104,676.1300**	**2.7735**		**104,734.3725**

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.0370	121.3627	219.4013	0.4969	14.0925	2.0182	16.1107	4.0128	1.8564	5.8692		46,447.3138	46,447.3138	0.3359		46,454.3687
Worker	23.5447	21.0531	286.9188	0.8272	65.0474	0.4473	65.4947	17.2544	0.4148	17.6693		58,228.8161	58,228.8161	2.4375		58,280.0038
Total	**39.5817**	**142.4158**	**506.3201**	**1.3241**	**79.1399**	**2.4655**	**81.6054**	**21.2672**	**2.2712**	**23.5384**		**104,676.1300**	**104,676.1300**	**2.7735**		**104,734.3725**

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7736	101.6333	206.2745	0.4964	14.0964	1.8179	15.9142	4.0143	1.6725	5.6867		46,421.5195	46,421.5195	0.3335		46,428.5220
Worker	22.2081	19.6745	269.6633	0.8271	65.0474	0.4496	65.4969	17.2544	0.4170	17.6714		57,246.1919	57,246.1919	2.3206		57,294.9248
Total	**36.9817**	**121.3079**	**475.9378**	**1.3235**	**79.1438**	**2.2674**	**81.4112**	**21.2687**	**2.0895**	**23.3581**		**103,667.7114**	**103,667.7114**	**2.6541**		**103,723.4468**

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7736	101.6333	206.2745	0.4964	14.0964	1.8179	15.9142	4.0143	1.6725	5.6867		46,421.5195	46,421.5195	0.3335		46,428.5220
Worker	22.2081	19.6745	269.6633	0.8271	65.0474	0.4496	65.4969	17.2544	0.4170	17.6714		57,246.1919	57,246.1919	2.3206		57,294.9248
Total	**36.9817**	**121.3079**	**475.9378**	**1.3235**	**79.1438**	**2.2674**	**81.4112**	**21.2687**	**2.0895**	**23.3581**		**103,667.7114**	**103,667.7114**	**2.6541**		**103,723.4468**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.4303	91.0122	201.0324	0.4965	14.1018	1.7854	15.8873	4.0163	1.6426	5.6589		46,440.1565	46,440.1565	0.3387		46,447.2682
Worker	21.0228	18.4923	254.4783	0.8270	65.0474	0.4523	65.4997	17.2544	0.4195	17.6739		56,368.1598	56,368.1598	2.2212		56,414.8042
Total	**35.4531**	**109.5044**	**455.5107**	**1.3235**	**79.1492**	**2.2377**	**81.3869**	**21.2707**	**2.0621**	**23.3329**		**102,808.3164**	**102,808.3164**	**2.5598**		**102,862.0724**

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.4303	91.0122	201.0324	0.4965	14.1018	1.7854	15.8873	4.0163	1.6426	5.6589		46,440.1565	46,440.1565	0.3387		46,447.2682
Worker	21.0228	18.4923	254.4783	0.8270	65.0474	0.4523	65.4997	17.2544	0.4195	17.6739		56,368.1598	56,368.1598	2.2212		56,414.8042
Total	**35.4531**	**109.5044**	**455.5107**	**1.3235**	**79.1492**	**2.2377**	**81.3869**	**21.2707**	**2.0621**	**23.3329**		**102,808.3164**	**102,808.3164**	**2.5598**		**102,862.0724**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.5791	82.2331	192.9145	0.4962	14.1068	1.6780	15.7848	4.0182	1.5438	5.5620		46,433.1426	46,433.1426	0.3214		46,439.8911
Worker	19.9678	17.4787	241.2089	0.8269	65.0474	0.4554	65.5028	17.2544	0.4225	17.6769		55,586.9806	55,586.9806	2.1366		55,631.8482
Total	**33.5469**	**99.7117**	**434.1234**	**1.3232**	**79.1542**	**2.1334**	**81.2875**	**21.2726**	**1.9663**	**23.2389**		**102,020.1231**	**102,020.1231**	**2.4579**		**102,071.7393**

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.5791	82.2331	192.9145	0.4962	14.1068	1.6780	15.7848	4.0182	1.5438	5.5620		46,433.1426	46,433.1426	0.3214		46,439.8911
Worker	19.9678	17.4787	241.2089	0.8269	65.0474	0.4554	65.5028	17.2544	0.4225	17.6769		55,586.9806	55,586.9806	2.1366		55,631.8482
Total	**33.5469**	**99.7117**	**434.1234**	**1.3232**	**79.1542**	**2.1334**	**81.2875**	**21.2726**	**1.9663**	**23.2389**		**102,020.1231**	**102,020.1231**	**2.4579**		**102,071.7393**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.3663	81.3232	189.1153	0.4967	14.1121	1.6862	15.7982	4.0203	1.5513	5.5715		46,486.6465	46,486.6465	0.3228		46,493.4253
Worker	19.0351	16.6202	230.2526	0.8268	65.0474	0.4589	65.5063	17.2544	0.4257	17.6801		54,899.8194	54,899.8194	2.0649		54,943.1828
Total	**32.4013**	**97.9434**	**419.3679**	**1.3236**	**79.1595**	**2.1450**	**81.3045**	**21.2747**	**1.9770**	**23.2517**		**101,386.4659**	**101,386.4659**	**2.3877**		**101,436.6082**

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.3663	81.3232	189.1153	0.4967	14.1121	1.6862	15.7982	4.0203	1.5513	5.5715		46,486.6465	46,486.6465	0.3228		46,493.4253
Worker	19.0351	16.6202	230.2526	0.8268	65.0474	0.4589	65.5063	17.2544	0.4257	17.6801		54,899.8194	54,899.8194	2.0649		54,943.1828
Total	**32.4013**	**97.9434**	**419.3679**	**1.3236**	**79.1595**	**2.1450**	**81.3045**	**21.2747**	**1.9770**	**23.2517**		**101,386.4659**	**101,386.4659**	**2.3877**		**101,436.6082**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1435	80.4629	185.6086	0.4971	14.1158	1.6916	15.8074	4.0217	1.5563	5.5780		46,526.4913	46,526.4913	0.3239		46,533.2931
Worker	18.2650	15.9060	221.2550	0.8268	65.0474	0.4631	65.5105	17.2544	0.4297	17.6841		54,303.0460	54,303.0460	2.0055		54,345.1616
Total	**31.4085**	**96.3689**	**406.8636**	**1.3238**	**79.1632**	**2.1547**	**81.3179**	**21.2761**	**1.9860**	**23.2621**		**100,829.5373**	**100,829.5373**	**2.3294**		**100,878.4547**

3.3 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1435	80.4629	185.6086	0.4971	14.1158	1.6916	15.8074	4.0217	1.5563	5.5780		46,526.4913	46,526.4913	0.3239		46,533.2931
Worker	18.2650	15.9060	221.2550	0.8268	65.0474	0.4631	65.5105	17.2544	0.4297	17.6841		54,303.0460	54,303.0460	2.0055		54,345.1616
Total	**31.4085**	**96.3689**	**406.8636**	**1.3238**	**79.1632**	**2.1547**	**81.3179**	**21.2761**	**1.9860**	**23.2621**		**100,829.5373**	**100,829.5373**	**2.3294**		**100,878.4547**

3.3 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9838	79.5576	182.7348	0.4974	14.1195	1.6920	15.8115	4.0231	1.5567	5.5797		46,567.8459	46,567.8459	0.3244		46,574.6580
Worker	17.5824	15.3100	213.7743	0.8268	65.0474	0.4681	65.5155	17.2544	0.4343	17.6887		53,793.9275	53,793.9275	1.9561		53,835.0045
Total	**30.5662**	**94.8676**	**396.5091**	**1.3242**	**79.1669**	**2.1601**	**81.3270**	**21.2775**	**1.9909**	**23.2684**		**100,361.7733**	**100,361.7733**	**2.2804**		**100,409.6626**

3.3 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9838	79.5576	182.7348	0.4974	14.1195	1.6920	15.8115	4.0231	1.5567	5.5797		46,567.8459	46,567.8459	0.3244		46,574.6580
Worker	17.5824	15.3100	213.7743	0.8268	65.0474	0.4681	65.5155	17.2544	0.4343	17.6887		53,793.9275	53,793.9275	1.9561		53,835.0045
Total	**30.5662**	**94.8676**	**396.5091**	**1.3242**	**79.1669**	**2.1601**	**81.3270**	**21.2775**	**1.9909**	**23.2684**		**100,361.7733**	**100,361.7733**	**2.2804**		**100,409.6626**

3.3 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8963	78.8475	180.5678	0.4978	14.1234	1.6954	15.8188	4.0246	1.5598	5.5843		46,606.2298	46,606.2298	0.3252		46,613.0597
Worker	16.9385	14.7815	207.1662	0.8267	65.0474	0.4723	65.5197	17.2544	0.4382	17.6926		53,354.2576	53,354.2576	1.9117		53,394.4030
Total	**29.8349**	**93.6290**	**387.7339**	**1.3245**	**79.1708**	**2.1677**	**81.3385**	**21.2790**	**1.9980**	**23.2770**		**99,960.4874**	**99,960.4874**	**2.2369**		**100,007.4627**

3.3 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8963	78.8475	180.5678	0.4978	14.1234	1.6954	15.8188	4.0246	1.5598	5.5843		46,606.2298	46,606.2298	0.3252		46,613.0597
Worker	16.9385	14.7815	207.1662	0.8267	65.0474	0.4723	65.5197	17.2544	0.4382	17.6926		53,354.2576	53,354.2576	1.9117		53,394.4030
Total	**29.8349**	**93.6290**	**387.7339**	**1.3245**	**79.1708**	**2.1677**	**81.3385**	**21.2790**	**1.9980**	**23.2770**		**99,960.4874**	**99,960.4874**	**2.2369**		**100,007.4627**

3.3 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7513	78.1994	178.0486	0.4980	14.1265	1.6963	15.8228	4.0258	1.5606	5.5864		46,635.2589	46,635.2589	0.3257		46,642.0982
Worker	16.3392	14.3082	201.3928	0.8268	65.0474	0.4761	65.5235	17.2544	0.4417	17.6962		52,978.5969	52,978.5969	1.8720		53,017.9098
Total	**29.0905**	**92.5075**	**379.4414**	**1.3248**	**79.1739**	**2.1724**	**81.3463**	**21.2802**	**2.0023**	**23.2826**		**99,613.8559**	**99,613.8559**	**2.1977**		**99,660.0080**

3.3 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7513	78.1994	178.0486	0.4980	14.1265	1.6963	15.8228	4.0258	1.5606	5.5864		46,635.2589	46,635.2589	0.3257		46,642.0982
Worker	16.3392	14.3082	201.3928	0.8268	65.0474	0.4761	65.5235	17.2544	0.4417	17.6962		52,978.5969	52,978.5969	1.8720		53,017.9098
Total	**29.0905**	**92.5075**	**379.4414**	**1.3248**	**79.1739**	**2.1724**	**81.3463**	**21.2802**	**2.0023**	**23.2826**		**99,613.8559**	**99,613.8559**	**2.1977**		**99,660.0080**

3.3 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6594	77.6627	176.1735	0.4983	14.1296	1.6972	15.8267	4.0270	1.5614	5.5884		46,661.8294	46,661.8294	0.3261		46,668.6769
Worker	15.7352	13.8558	195.8342	0.8268	65.0474	0.4791	65.5264	17.2544	0.4445	17.6989		52,657.8875	52,657.8875	1.8338		52,696.3979
Total	**28.3946**	**91.5185**	**372.0077**	**1.3250**	**79.1769**	**2.1762**	**81.3531**	**21.2814**	**2.0059**	**23.2873**		**99,319.7169**	**99,319.7169**	**2.1599**		**99,365.0747**

3.3 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6594	77.6627	176.1735	0.4983	14.1296	1.6972	15.8267	4.0270	1.5614	5.5884		46,661.8294	46,661.8294	0.3261		46,668.6769
Worker	15.7352	13.8558	195.8342	0.8268	65.0474	0.4791	65.5264	17.2544	0.4445	17.6989		52,657.8875	52,657.8875	1.8338		52,696.3979
Total	**28.3946**	**91.5185**	**372.0077**	**1.3250**	**79.1769**	**2.1762**	**81.3531**	**21.2814**	**2.0059**	**23.2873**		**99,319.7169**	**99,319.7169**	**2.1599**		**99,365.0747**

3.3 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6051	77.1755	175.1962	0.4985	14.1325	1.6982	15.8307	4.0281	1.5624	5.5905		46,689.3941	46,689.3941	0.3265		46,696.2502
Worker	15.1559	13.4451	191.0022	0.8268	65.0474	0.4813	65.5287	17.2544	0.4465	17.7010		52,387.1993	52,387.1993	1.7989		52,424.9757
Total	**27.7610**	**90.6206**	**366.1984**	**1.3253**	**79.1799**	**2.1795**	**81.3594**	**21.2825**	**2.0089**	**23.2915**		**99,076.5934**	**99,076.5934**	**2.1254**		**99,121.2259**

3.3 Building Construction - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6051	77.1755	175.1962	0.4985	14.1325	1.6982	15.8307	4.0281	1.5624	5.5905		46,689.3941	46,689.3941	0.3265		46,696.2502
Worker	15.1559	13.4451	191.0022	0.8268	65.0474	0.4813	65.5287	17.2544	0.4465	17.7010		52,387.1993	52,387.1993	1.7989		52,424.9757
Total	**27.7610**	**90.6206**	**366.1984**	**1.3253**	**79.1799**	**2.1795**	**81.3594**	**21.2825**	**2.0089**	**23.2915**		**99,076.5934**	**99,076.5934**	**2.1254**		**99,121.2259**

3.3 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5743	76.7871	174.3168	0.4988	14.1360	1.7002	15.8362	4.0295	1.5642	5.5937		46,720.7641	46,720.7641	0.3270		46,727.6300
Worker	14.6106	13.0629	186.6283	0.8268	65.0474	0.4827	65.5301	17.2544	0.4478	17.7022		52,160.6746	52,160.6746	1.7672		52,197.7848
Total	**27.1850**	**89.8500**	**360.9451**	**1.3257**	**79.1834**	**2.1829**	**81.3662**	**21.2839**	**2.0120**	**23.2960**		**98,881.4387**	**98,881.4387**	**2.0941**		**98,925.4148**

3.3 Building Construction - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5743	76.7871	174.3168	0.4988	14.1360	1.7002	15.8362	4.0295	1.5642	5.5937		46,720.7641	46,720.7641	0.3270		46,727.6300
Worker	14.6106	13.0629	186.6283	0.8268	65.0474	0.4827	65.5301	17.2544	0.4478	17.7022		52,160.6746	52,160.6746	1.7672		52,197.7848
Total	**27.1850**	**89.8500**	**360.9451**	**1.3257**	**79.1834**	**2.1829**	**81.3662**	**21.2839**	**2.0120**	**23.2960**		**98,881.4387**	**98,881.4387**	**2.0941**		**98,925.4148**

3.3 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5321	76.4462	173.5441	0.4991	14.1395	1.7021	15.8416	4.0309	1.5660	5.5969		46,750.0995	46,750.0995	0.3274		46,756.9745
Worker	14.1056	12.7330	182.9070	0.8268	65.0474	0.4836	65.5310	17.2544	0.4487	17.7031		51,972.2171	51,972.2171	1.7393		52,008.7419
Total	**26.6377**	**89.1792**	**356.4511**	**1.3260**	**79.1869**	**2.1857**	**81.3726**	**21.2853**	**2.0147**	**23.3000**		**98,722.3166**	**98,722.3166**	**2.0667**		**98,765.7163**

3.3 Building Construction - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5321	76.4462	173.5441	0.4991	14.1395	1.7021	15.8416	4.0309	1.5660	5.5969		46,750.0995	46,750.0995	0.3274		46,756.9745
Worker	14.1056	12.7330	182.9070	0.8268	65.0474	0.4836	65.5310	17.2544	0.4487	17.7031		51,972.2171	51,972.2171	1.7393		52,008.7419
Total	**26.6377**	**89.1792**	**356.4511**	**1.3260**	**79.1869**	**2.1857**	**81.3726**	**21.2853**	**2.0147**	**23.3000**		**98,722.3166**	**98,722.3166**	**2.0667**		**98,765.7163**

3.4 Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0247	0.0223	0.3209	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		91.1687	91.1687	3.0500e-003		91.2327
Total	**0.0247**	**0.0223**	**0.3209**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**91.1687**	**91.1687**	**3.0500e-003**		**91.2327**

3.4 Paving - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0247	0.0223	0.3209	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		91.1687	91.1687	3.0500e-003		91.2327
Total	**0.0247**	**0.0223**	**0.3209**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**91.1687**	**91.1687**	**3.0500e-003**		**91.2327**

3.4 Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0219	0.3155	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		90.8950	90.8950	3.0100e-003		90.9582
Total	**0.0240**	**0.0219**	**0.3155**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**90.8950**	**90.8950**	**3.0100e-003**		**90.9582**

3.4 Paving - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0219	0.3155	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		90.8950	90.8950	3.0100e-003		90.9582
Total	**0.0240**	**0.0219**	**0.3155**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**90.8950**	**90.8950**	**3.0100e-003**		**90.9582**

3.5 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.7360	2.4920	35.9713	0.1654	13.0080	0.0969	13.1048	3.4505	0.0899	3.5404		10,362.0279	10,362.0279	0.3431		10,369.2337
Total	**2.7360**	**2.4920**	**35.9713**	**0.1654**	**13.0080**	**0.0969**	**13.1048**	**3.4505**	**0.0899**	**3.5404**		**10,362.0279**	**10,362.0279**	**0.3431**		**10,369.2337**

3.5 Architectural Coating - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.7360	2.4920	35.9713	0.1654	13.0080	0.0969	13.1048	3.4505	0.0899	3.5404		10,362.0279	10,362.0279	0.3431		10,369.2337
Total	**2.7360**	**2.4920**	**35.9713**	**0.1654**	**13.0080**	**0.0969**	**13.1048**	**3.4505**	**0.0899**	**3.5404**		**10,362.0279**	**10,362.0279**	**0.3431**		**10,369.2337**

3.5 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6456	2.4451	35.3818	0.1654	13.0080	0.0969	13.1049	3.4505	0.0899	3.5404		10,335.6352	10,335.6352	0.3387		10,342.7473
Total	**2.6456**	**2.4451**	**35.3818**	**0.1654**	**13.0080**	**0.0969**	**13.1049**	**3.4505**	**0.0899**	**3.5404**		**10,335.6352**	**10,335.6352**	**0.3387**		**10,342.7473**

3.5 Architectural Coating - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6456	2.4451	35.3818	0.1654	13.0080	0.0969	13.1049	3.4505	0.0899	3.5404		10,335.6352	10,335.6352	0.3387		10,342.7473
Total	**2.6456**	**2.4451**	**35.3818**	**0.1654**	**13.0080**	**0.0969**	**13.1049**	**3.4505**	**0.0899**	**3.5404**		**10,335.6352**	**10,335.6352**	**0.3387**		**10,342.7473**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	334.9040	434.7688	2,713.2655	10.4611	690.4567	10.9374	701.3942	184.4744	10.1052	194.5796		728,937.4425	728,937.4425	19.0694		729,337.8994
Unmitigated	334.9040	434.7688	2,713.2655	10.4611	690.4567	10.9374	701.3942	184.4744	10.1052	194.5796		728,937.4425	728,937.4425	19.0694		729,337.8994

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	29,260.00	29,260.00	29260.00	63,424,561	63,424,561
City Park	0.00	0.00	0.00		
General Office Building	62,970.27	62,970.27	62970.27	119,218,779	119,218,779
Hardware/Paint Store	1,600.20	1,600.20	1600.20	2,605,838	2,605,838
Hotel	8,987.00	8,987.00	8987.00	15,346,336	15,346,336
Strip Mall	75,073.44	75,073.44	75073.44	125,327,225	125,327,225
Total	177,890.91	177,890.91	177,890.91	325,922,739	325,922,739

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	7.50	3.75	4.88	46.50	12.50	41.00	100	0	0
City Park	7.50	3.75	4.88	33.00	48.00	19.00	100	0	0
General Office Building	7.50	3.75	4.88	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	7.50	3.75	4.88	13.60	67.40	19.00	100	0	0
Hotel	7.50	3.75	4.88	19.40	61.60	19.00	100	0	0
Strip Mall	7.50	3.75	4.88	16.60	64.40	19.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
NaturalGas Unmitigated	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	163919	1.7678	16.0705	13.4992	0.0964		1.2214	1.2214		1.2214	1.2214		19,284.5512	19,284.5512	0.3696	0.3536	19,401.9137
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hotel	138409	1.4927	13.5696	11.3984	0.0814		1.0313	1.0313		1.0313	1.0313		16,283.4604	16,283.4604	0.3121	0.2985	16,382.5589
Strip Mall	15577.6	0.1680	1.5272	1.2829	9.1600e-003		0.1161	0.1161		0.1161	0.1161		1,832.6640	1,832.6640	0.0351	0.0336	1,843.8173
Apartments Mid Rise	151739	1.6364	13.9838	5.9506	0.0893		1.1306	1.1306		1.1306	1.1306		17,851.6809	17,851.6809	0.3422	0.3273	17,960.3233
Total		**5.0886**	**45.3672**	**32.3126**	**0.2776**		**3.5157**	**3.5157**		**3.5157**	**3.5157**		**55,511.6957**	**55,511.6957**	**1.0640**	**1.0177**	**55,849.5307**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	163.919	1.7678	16.0705	13.4992	0.0964		1.2214	1.2214		1.2214	1.2214		19,284.5512	19,284.5512	0.3696	0.3536	19,401.9137
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hotel	138.409	1.4927	13.5696	11.3984	0.0814		1.0313	1.0313		1.0313	1.0313		16,283.4604	16,283.4604	0.3121	0.2985	16,382.5589
Strip Mall	15.5776	0.1680	1.5272	1.2829	9.1600e-003		0.1161	0.1161		0.1161	0.1161		1,832.6640	1,832.6640	0.0351	0.0336	1,843.8173
Apartments Mid Rise	151.739	1.6364	13.9838	5.9506	0.0893		1.1306	1.1306		1.1306	1.1306		17,851.6809	17,851.6809	0.3422	0.3273	17,960.3233
Total		**5.0886**	**45.3672**	**32.3126**	**0.2776**		**3.5157**	**3.5157**		**3.5157**	**3.5157**		**55,511.6957**	**55,511.6957**	**1.0640**	**1.0177**	**55,849.5307**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Unmitigated	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.3439					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	365.1910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	17.2836	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056		1,041.6806	1,041.6806	0.9946		1,062.5665
Total	**444.8185**	**6.6469**	**576.3206**	**0.0306**		**3.2056**	**3.2056**		**3.2056**	**3.2056**	**0.0000**	**1,041.6806**	**1,041.6806**	**0.9946**	**0.0000**	**1,062.5665**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.3439					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	365.1910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	17.2836	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056		1,041.6806	1,041.6806	0.9946		1,062.5665
Total	**444.8185**	**6.6469**	**576.3206**	**0.0306**		**3.2056**	**3.2056**		**3.2056**	**3.2056**	**0.0000**	**1,041.6806**	**1,041.6806**	**0.9946**	**0.0000**	**1,062.5665**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - MLS Event - Unadjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P. Adjusted trips lengths for the Arena to reflect what would be expected at an MLS Stadium; not an arena.

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
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tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
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tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
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tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65

tblEnergyUse	T24NG	34.77	26.08
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	CC_TL	5.00	12.15
tblVehicleTrips	CNW_TL	6.50	15.80
tblVehicleTrips	CW_TL	10.00	24.30
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
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tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
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tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00

tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
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tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	10.71	49.14
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tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	10.71	49.14
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
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tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	10.71	49.14
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69

tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	407.5484	927.0078	1.6312	90.3351	10.4211	100.7562	25.7755	9.6183	35.3938	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	454.3267	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	408.4243	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	371.6449	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	326.6423	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	280.2092	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	126.3157	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936
2023	34.7236	115.1503	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	112.4567	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	109.9205	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	108.4205	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	107.1848	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	106.0658	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	29.4900	105.0809	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	99.6948	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501
2031	28.2592	98.9290	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	196.5244	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	104.6958	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	100.3751	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	95.9501	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,835.5600**	**12,664.2858**	**35.3628**	**2,047.0835**	**90.0098**	**2,136.8822**	**551.8922**	**83.3729**	**635.0473**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8791**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	386.8844	927.0078	1.6312	86.1508	10.4211	96.5719	23.8465	9.6183	33.4648	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	443.7645	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	399.1200	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	363.2589	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	319.0087	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	242.6236	273.2731	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	123.2084	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936
2023	34.7236	112.2878	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	109.7812	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	107.4386	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	105.9386	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	104.7029	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	103.5839	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	102.5989	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	98.1112	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501
2031	28.2592	97.3454	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	193.3572	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	101.7162	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	98.6202	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	94.5199	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,738.5199**	**12,664.2858**	**35.3628**	**2,042.8992**	**90.0098**	**2,132.6979**	**549.9632**	**83.3729**	**633.1183**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8790**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.53**	**0.00**	**0.00**	**0.20**	**0.00**	**0.20**	**0.35**	**0.00**	**0.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	394.1573	629.1348	3,966.9242	16.6589	1,116.0252	16.5889	1,132.6141	298.1767	15.3231	313.4998		1,160,512.8587	1,160,512.8587	29.7191		1,161,136.9596
Total	**842.5154**	**695.3229**	**4,507.1037**	**17.0526**	**1,116.0252**	**23.9930**	**1,140.0182**	**298.1767**	**22.7272**	**320.9038**	**0.0000**	**1,234,909.6344**	**1,234,909.6344**	**31.9823**	**1.3476**	**1,235,999.0062**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	394.1573	629.1348	3,966.9242	16.6589	1,116.0252	16.5889	1,132.6141	298.1767	15.3231	313.4998		1,160,512.8587	1,160,512.8587	29.7191		1,161,136.9596
Total	**842.5154**	**695.3229**	**4,507.1037**	**17.0526**	**1,116.0252**	**23.9930**	**1,140.0182**	**298.1767**	**22.7272**	**320.9038**	**0.0000**	**1,234,909.6344**	**1,234,909.6344**	**31.9823**	**1.3476**	**1,235,999.0062**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45

Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6078	0.0000	7.6078	3.5073	0.0000	3.5073			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**7.6078**	**3.5842**	**11.1920**	**3.5073**	**3.2975**	**6.8048**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4235	0.0000	3.4235	1.5783	0.0000	1.5783			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**3.4235**	**3.5842**	**7.0077**	**1.5783**	**3.2975**	**4.8758**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	22.8051	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**22.8051**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	16.2371	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**16.2371**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	13.7302	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**13.7302**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	1.7480	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**1.7480**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	1.6046	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**1.6046**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	10.1285	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**10.1285**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.2215	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.2215**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**7.1510**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**		**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	5.7208	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**5.7208**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**4.7892**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**		**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	3.8313	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**3.8313**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.6062	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.6062**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	394.1573	629.1348	3,966.9242	16.6589	1,116.0252	16.5889	1,132.6141	298.1767	15.3231	313.4998		1,160,512.8587	1,160,512.8587	29.7191		1,161,136.9596
Unmitigated	394.1573	629.1348	3,966.9242	16.6589	1,116.0252	16.5889	1,132.6141	298.1767	15.3231	313.4998		1,160,512.8587	1,160,512.8587	29.7191		1,161,136.9596

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	72,485,213	72,485,213
Arena	19,444.70	19,444.70	19444.70	90,904,624	90,904,624
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	126,492,885	126,492,885
Hardware/Paint Store	1,600.20	1,600.20	1600.20	3,474,450	3,474,450
Hospital	30,319.32	30,319.32	30319.32	94,139,063	94,139,063
Hotel	8,987.00	8,987.00	8987.00	20,461,781	20,461,781
Strip Mall	53,395.00	53,395.00	53395.00	118,849,795	118,849,795
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	188,935.51	188,935.51	188,935.51	526,807,812	526,807,812

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	100	0	0
Arena	24.30	12.15	15.80	0.00	81.00	19.00	100	0	0
City Park	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	10.00	5.00	6.50	13.60	67.40	19.00	100	0	0
Hospital	10.00	5.00	6.50	64.90	16.10	19.00	100	0	0
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	100	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
NaturalGas Unmitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33477.3	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130440	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11083.2	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130.44	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179.187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138.322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11.0832	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130.063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Arena	33.4773	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Unmitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RSPU - Construction & Operations - Non MLS Event - Unadjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4,543.00	1000sqft	104.29	4,543,000.00	0
Hospital	1,228.00	1000sqft	28.19	1,228,000.00	0
Unenclosed Parking Structure	2,160.00	Space	19.44	864,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Arena	395.70	1000sqft	127.19	395,700.00	0
Apartments Mid Rise	6,000.00	Dwelling Unit	157.89	6,000,000.00	16020
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	905.00	1000sqft	20.78	905,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Off-road Equipment - Used CalEEMod default equipment type for the architectural coating phase.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for architectural coating.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for building construction.

Off-road Equipment - Used CalEEMod default equipment type for grading.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Off-road Equipment - Used CalEEMod default equipment type for paving.

Trips and VMT - Assumed 750,000 cy of soil would be imported to the project site during grading.

Grading - Assumes 750,000 cubic yards of soil imported

Architectural Coating - Updated the interior and exterior square footage for the MLS Stadium, KPMC, and RSPU.

Vehicle Trips - Trip generation rates were provided by F&P

Area Coating -

Energy Use - Adjusted energy intsity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	255,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	197,850.00

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	2,556,911.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,509,850.00	359,002.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	765,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	593,550.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	7,670,733.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,529,550.00	1,077,005.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	4,050,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	12,150,000.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	NumDays	9,300.00	272.00
tblConstructionPhase	NumDays	9,300.00	4,099.00
tblConstructionPhase	NumDays	9,300.00	760.00
tblConstructionPhase	NumDays	9,300.00	759.00
tblConstructionPhase	NumDays	930.00	261.00
tblConstructionPhase	NumDays	660.00	298.00
tblConstructionPhase	NumDays	660.00	48.00
tblConstructionPhase	NumDays	660.00	54.00
tblConstructionPhase	NumDays	660.00	50.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	8/24/2035	8/26/2035
tblConstructionPhase	PhaseEndDate	3/30/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	1/16/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	7/18/2033	9/16/2032

tblConstructionPhase	PhaseEndDate	12/14/2020	7/16/2021
tblConstructionPhase	PhaseEndDate	10/31/2024	4/12/2035
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblConstructionPhase	PhaseEndDate	6/3/2036	11/8/2033
tblConstructionPhase	PhaseEndDate	3/7/2035	6/19/2035
tblConstructionPhase	PhaseEndDate	12/1/2032	1/15/2018
tblConstructionPhase	PhaseStartDate	1/16/2018	11/1/2017
tblConstructionPhase	PhaseStartDate	9/25/2021	9/27/2021
tblConstructionPhase	PhaseStartDate	1/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	1/16/2018	8/20/2018
tblConstructionPhase	PhaseStartDate	12/4/2021	5/16/2032
tblConstructionPhase	PhaseStartDate	4/13/2035	9/17/2032
tblConstructionPhase	PhaseStartDate	1/1/2035	4/13/2035
tblConstructionPhase	PhaseStartDate	9/17/2032	11/1/2017
tblConstructionPhase	PhaseStartDate	7/17/2021	7/19/2021
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	9.62	7.22
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	4.17	3.13
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.94
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	58.20	43.65
tblEnergyUse	T24NG	34.77	26.08

tblEnergyUse	T24NG	24.61	18.46
tblEnergyUse	T24NG	4.72	3.54
tblGrading	AcresOfGrading	652.50	244.00
tblGrading	MaterialExported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
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tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	73.00	100.00

tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	0.66	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	10.18	24.69
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	10.71	0.51
tblVehicleTrips	ST_TR	42.04	59.00
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89
tblVehicleTrips	SU_TR	8.91	24.69
tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	10.71	0.51
tblVehicleTrips	SU_TR	20.43	59.00
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	16.50	24.69
tblVehicleTrips	WD_TR	10.71	0.51
tblVehicleTrips	WD_TR	44.32	59.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	407.5484	927.0078	1.6312	90.3351	10.4211	100.7562	25.7755	9.6183	35.3938	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	454.3267	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	408.4243	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	371.6449	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	326.6423	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	280.2092	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	126.3157	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936
2023	34.7236	115.1503	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	112.4567	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	109.9205	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	108.4205	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	107.1848	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	106.0658	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	105.0809	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	99.6948	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	28.2592	98.9290	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	196.5244	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	104.6958	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	100.3751	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	95.9501	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,835.5600**	**12,664.2858**	**35.3628**	**2,047.0835**	**90.0098**	**2,136.8822**	**551.8922**	**83.3729**	**635.0473**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8791**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.2324	386.8844	927.0078	1.6312	86.1508	10.4211	96.5719	23.8465	9.6183	33.4648	0.0000	148,932.1412	148,932.1412	6.3593	0.0000	149,065.6861
2017	168.2791	443.7645	1,368.0363	2.6828	154.4791	9.8873	164.3664	41.5369	9.1588	50.6957	0.0000	232,682.7370	232,682.7370	7.8714	0.0000	232,848.0354
2018	159.5517	399.1200	1,218.1637	2.6782	154.4727	8.8552	163.3279	41.5345	8.2071	49.7416	0.0000	225,979.7972	225,979.7972	7.3659	0.0000	226,134.4803
2019	91.9017	363.2589	1,131.4325	2.6690	154.4802	8.0524	162.5325	41.5372	7.4633	49.0005	0.0000	219,378.1896	219,378.1896	6.9516	0.0000	219,524.1722
2020	82.4687	319.0087	1,036.0794	2.6667	154.4857	7.2108	161.6965	41.5395	6.6848	48.2243	0.0000	212,451.8139	212,451.8139	6.6356	0.0000	212,591.1613
2021	242.6236	273.2731	975.3882	2.6656	154.4938	6.4901	160.9839	41.5425	6.0162	47.5587	0.0000	210,500.6949	210,500.6949	6.3909	0.0000	210,634.9039
2022	36.7451	123.2084	467.4591	1.3328	77.2525	3.0654	80.3178	20.7733	2.8404	23.6137	0.0000	104,421.8813	104,421.8813	3.1006	0.0000	104,486.9936

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	34.7236	112.2878	446.2311	1.3325	77.2575	2.8498	80.1072	20.7753	2.6399	23.4151	0.0000	103,660.7287	103,660.7287	2.9971	0.0000	103,723.6673
2024	33.5042	109.7812	431.6893	1.3329	77.2629	2.7753	80.0382	20.7774	2.5694	23.3467	0.0000	103,051.8201	103,051.8201	2.9258	0.0000	103,113.2626
2025	32.4288	107.4386	419.3336	1.3332	77.2667	2.6994	79.9661	20.7788	2.4979	23.2767	0.0000	102,516.5968	102,516.5968	2.8661	0.0000	102,576.7856
2026	31.6062	105.9386	409.1710	1.3336	77.2705	2.7046	79.9751	20.7802	2.5027	23.2829	0.0000	102,066.8424	102,066.8424	2.8189	0.0000	102,126.0382
2027	30.8948	104.7029	400.5732	1.3339	77.2745	2.7121	79.9866	20.7818	2.5096	23.2914	0.0000	101,681.1650	101,681.1650	2.7768	0.0000	101,739.4787
2028	30.1675	103.5839	392.4227	1.3342	77.2777	2.7167	79.9944	20.7830	2.5139	23.2969	0.0000	101,347.7911	101,347.7911	2.7390	0.0000	101,405.3097
2029	29.4900	102.5989	385.1371	1.3344	77.2807	2.7205	80.0012	20.7842	2.5174	23.3016	0.0000	101,065.0078	101,065.0078	2.7025	0.0000	101,121.7593
2030	28.8175	98.1112	379.5497	1.3387	77.2837	2.3463	79.6300	20.7854	2.1741	22.9595	0.0000	101,170.5153	101,170.5153	2.1874	0.0000	101,216.4501
2031	28.2592	97.3454	374.4254	1.3390	77.2873	2.3497	79.6370	20.7868	2.1772	22.9640	0.0000	100,983.6440	100,983.6440	2.1572	0.0000	101,028.9451
2032	55.4561	193.3572	740.0810	2.6787	154.5818	4.7051	159.2869	41.5765	4.3596	45.9361	0.0000	201,662.9618	201,662.9618	4.2614	0.0000	201,752.4511
2033	520.6611	101.7162	403.1016	1.5025	89.8688	2.6797	92.3374	24.1251	2.5067	26.4140	0.0000	111,006.6902	111,006.6902	2.4515	0.0000	111,058.1717
2034	520.1180	98.6202	399.0723	1.5027	89.8720	2.4699	92.3419	24.1264	2.2901	26.4165	0.0000	110,880.8265	110,880.8265	2.4260	0.0000	110,931.7716
2035	150.3401	94.5199	359.9309	1.3402	77.3005	2.2986	79.5990	20.7921	2.1255	22.9176	0.0000	100,526.0820	100,526.0820	2.0606	0.0000	100,569.3554
Total	**2,389.2694**	**3,738.5199**	**12,664.2858**	**35.3628**	**2,042.8992**	**90.0098**	**2,132.6979**	**549.9632**	**83.3729**	**633.1183**	**0.0000**	**2,795,967.9267**	**2,795,967.9267**	**80.0454**	**0.0000**	**2,797,648.8790**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.53**	**0.00**	**0.00**	**0.20**	**0.00**	**0.20**	**0.35**	**0.00**	**0.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	346.1650	530.9057	3,341.4616	13.8301	924.2692	13.8847	938.1539	246.9438	12.8258	259.7696		963,487.5766	963,487.5766	24.7608		964,007.5523
Total	**794.5230**	**597.0937**	**3,881.6411**	**14.2238**	**924.2692**	**21.2888**	**945.5580**	**246.9438**	**20.2298**	**267.1736**	**0.0000**	**1,037,884.3524**	**1,037,884.3524**	**27.0240**	**1.3476**	**1,038,869.5989**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Energy	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
Mobile	346.1650	530.9057	3,341.4616	13.8301	924.2692	13.8847	938.1539	246.9438	12.8258	259.7696		963,487.5766	963,487.5766	24.7608		964,007.5523
Total	**794.5230**	**597.0937**	**3,881.6411**	**14.2238**	**924.2692**	**21.2888**	**945.5580**	**246.9438**	**20.2298**	**267.1736**	**0.0000**	**1,037,884.3524**	**1,037,884.3524**	**27.0240**	**1.3476**	**1,038,869.5989**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction - MLS Stadium	Building Construction	10/15/2016	10/31/2017	5	272	
3	Building Construction - RSPU	Building Construction	1/1/2017	9/16/2032	5	4099	
4	Paving - MLS Stadium	Paving	11/1/2017	1/15/2018	5	54	
5	Architectural Coating - MLS Stadium	Architectural Coating	11/1/2017	1/15/2018	5	54	
6	Building Construction - KPMC Phase 1	Building Construction	8/20/2018	7/16/2021	5	760	
7	Paving - KPMC Phase 1	Paving	7/19/2021	9/24/2021	5	50	
8	Architectural Coating - KPMC Phase 1	Architectural Coating	9/27/2021	12/3/2021	5	50	
9	Building Construction - KPMC Phase 2	Building Construction	5/16/2032	4/12/2035	5	759	
10	Paving - RSPU	Paving	9/17/2032	11/8/2033	5	298	
11	Architectural Coating - RSPU	Architectural Coating	11/9/2033	12/31/2034	5	298	
12	Paving - KPMC Phase 2	Paving	4/13/2035	6/19/2035	5	48	
13	Architectural Coating - KPMC Phase 2	Architectural Coating	6/20/2035	8/26/2035	5	48	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 244

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 593,550; Non-Residential Outdoor: 197,850 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - MLS Stadium	Cranes	1	7.00	226	0.29
Building Construction - MLS Stadium	Forklifts	3	8.00	89	0.20
Building Construction - MLS Stadium	Generator Sets	1	8.00	84	0.74
Building Construction - MLS Stadium	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - MLS Stadium	Welders	1	8.00	46	0.45
Building Construction - RSPU	Cranes	1	7.00	226	0.29
Building Construction - RSPU	Forklifts	3	8.00	89	0.20
Building Construction - RSPU	Generator Sets	1	8.00	84	0.74
Building Construction - RSPU	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - RSPU	Welders	1	8.00	46	0.45
Paving - MLS Stadium	Pavers	2	8.00	125	0.42
Paving - MLS Stadium	Paving Equipment	2	8.00	130	0.36
Paving - MLS Stadium	Rollers	2	8.00	80	0.38
Architectural Coating - MLS Stadium	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 1	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 1	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 1	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 1	Welders	1	8.00	46	0.45

Paving - KPMC Phase 1	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 1	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 1	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 1	Air Compressors	1	6.00	78	0.48
Building Construction - KPMC Phase 2	Cranes	1	7.00	226	0.29
Building Construction - KPMC Phase 2	Forklifts	3	8.00	89	0.20
Building Construction - KPMC Phase 2	Generator Sets	1	8.00	84	0.74
Building Construction - KPMC Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - KPMC Phase 2	Welders	1	8.00	46	0.45
Paving - RSPU	Pavers	2	8.00	125	0.42
Paving - RSPU	Paving Equipment	2	8.00	130	0.36
Paving - RSPU	Rollers	2	8.00	80	0.38
Architectural Coating - RSPU	Air Compressors	1	6.00	78	0.48
Paving - KPMC Phase 2	Pavers	2	8.00	125	0.42
Paving - KPMC Phase 2	Paving Equipment	2	8.00	130	0.36
Paving - KPMC Phase 2	Rollers	2	8.00	80	0.38
Architectural Coating - KPMC Phase 2	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MLS Stadium	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RSPU	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MLS Stadium	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MLS Stadium	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 1	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 1	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 1	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - KPMC Phase 2	9	8,263.00	2,448.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RSPU	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RSPU	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving - KPMC Phase 2	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - KPMC Phase 2	1	1,653.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6078	0.0000	7.6078	3.5073	0.0000	3.5073			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**7.6078**	**3.5842**	**11.1920**	**3.5073**	**3.2975**	**6.8048**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4235	0.0000	3.4235	1.5783	0.0000	1.5783			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**3.4235**	**3.5842**	**7.0077**	**1.5783**	**3.2975**	**4.8758**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - MLS Stadium - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	22.8051	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**22.8051**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	29.5773	196.6152	344.9715	0.5121	14.3793	3.2226	17.6020	4.0937	2.9593	7.0530		51,110.1740	51,110.1740	0.4021		51,118.6188
Worker	33.1149	29.7876	398.7483	0.8041	62.8566	0.4619	63.3184	16.6733	0.4243	17.0976		66,056.9236	66,056.9236	3.1911		66,123.9376
Total	**62.6922**	**226.4028**	**743.7198**	**1.3161**	**77.2359**	**3.6845**	**80.9204**	**20.7670**	**3.3836**	**24.1506**		**117,167.0976**	**117,167.0976**	**3.5933**		**117,242.5564**

3.3 Building Construction - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.3 Building Construction - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	25.5047	174.1293	308.9193	0.5108	14.3830	2.7162	17.0991	4.0952	2.4948	6.5900		50,250.0603	50,250.0603	0.3748		50,257.9306
Worker	29.5258	26.6284	356.9697	0.8038	62.8566	0.4463	63.3029	16.6733	0.4116	17.0849		63,451.5030	63,451.5030	2.9112		63,512.6381
Total	**55.0305**	**200.7577**	**665.8890**	**1.3146**	**77.2396**	**3.1624**	**80.4020**	**20.7685**	**2.9064**	**23.6749**		**113,701.5632**	**113,701.5632**	**3.2860**		**113,770.5687**

3.4 Building Construction - RSPU - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.4 Building Construction - RSPU - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.4 Building Construction - RSPU - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.4 Building Construction - RSPU - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.4 Building Construction - RSPU - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7311	92.9098	205.2241	0.5068	14.3959	1.8226	16.2185	4.1001	1.6769	5.7769		47,408.4667	47,408.4667	0.3457		47,415.7266
Worker	20.3148	17.8695	245.9074	0.7992	62.8566	0.4370	63.2936	16.6733	0.4054	17.0787		54,469.6649	54,469.6649	2.1464		54,514.7383
Total	**35.0459**	**110.7793**	**451.1315**	**1.3060**	**77.2525**	**2.2597**	**79.5121**	**20.7733**	**2.0823**	**22.8556**		**101,878.1316**	**101,878.1316**	**2.4921**		**101,930.4649**

3.4 Building Construction - RSPU - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.8622	83.9477	196.9369	0.5066	14.4009	1.7130	16.1139	4.1020	1.5760	5.6780		47,401.3065	47,401.3065	0.3281		47,408.1958
Worker	19.2953	16.8900	233.0849	0.7991	62.8566	0.4401	63.2966	16.6733	0.4082	17.0815		53,714.7960	53,714.7960	2.0646		53,758.1524
Total	**33.1575**	**100.8377**	**430.0218**	**1.3057**	**77.2575**	**2.1531**	**79.4105**	**20.7753**	**1.9842**	**22.7595**		**101,116.1025**	**101,116.1025**	**2.3927**		**101,166.3482**

3.4 Building Construction - RSPU - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.6450	83.0188	193.0585	0.5071	14.4063	1.7213	16.1276	4.1041	1.5836	5.6877		47,455.9261	47,455.9261	0.3295		47,462.8462
Worker	18.3939	16.0604	222.4977	0.7990	62.8566	0.4434	63.3000	16.6733	0.4114	17.0847		53,050.7786	53,050.7786	1.9954		53,092.6815
Total	**32.0389**	**99.0793**	**415.5561**	**1.3061**	**77.2629**	**2.1647**	**79.4276**	**20.7774**	**1.9950**	**22.7724**		**100,506.7047**	**100,506.7047**	**2.3249**		**100,555.5277**

3.4 Building Construction - RSPU - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.4175	82.1406	189.4787	0.5074	14.4101	1.7269	16.1370	4.1055	1.5888	5.6943		47,496.6016	47,496.6016	0.3307		47,503.5452
Worker	17.6498	15.3703	213.8031	0.7989	62.8566	0.4475	63.3041	16.6733	0.4152	17.0885		52,474.1047	52,474.1047	1.9380		52,514.8018
Total	**31.0674**	**97.5109**	**403.2818**	**1.3064**	**77.2667**	**2.1744**	**79.4411**	**20.7788**	**2.0040**	**22.7828**		**99,970.7063**	**99,970.7063**	**2.2686**		**100,018.3470**

3.4 Building Construction - RSPU - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.2546	81.2164	186.5449	0.5078	14.4139	1.7273	16.1412	4.1070	1.5891	5.6961		47,538.8185	47,538.8185	0.3312		47,545.7727
Worker	16.9902	14.7944	206.5743	0.7989	62.8566	0.4523	63.3089	16.6733	0.4197	17.0929		51,982.1334	51,982.1334	1.8902		52,021.8270
Total	**30.2448**	**96.0108**	**393.1192**	**1.3067**	**77.2705**	**2.1796**	**79.4501**	**20.7802**	**2.0088**	**22.7890**		**99,520.9519**	**99,520.9519**	**2.2213**		**99,567.5996**

3.4 Building Construction - RSPU - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1652	80.4915	184.3327	0.5082	14.4179	1.7307	16.1486	4.1085	1.5923	5.7008		47,578.0028	47,578.0028	0.3320		47,584.9751
Worker	16.3681	14.2836	200.1887	0.7989	62.8566	0.4564	63.3130	16.6733	0.4234	17.0967		51,557.2717	51,557.2717	1.8473		51,596.0650
Total	**29.5333**	**94.7751**	**384.5215**	**1.3071**	**77.2745**	**2.1871**	**79.4616**	**20.7818**	**2.0157**	**22.7975**		**99,135.2745**	**99,135.2745**	**2.1793**		**99,181.0401**

3.4 Building Construction - RSPU - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.0172	79.8299	181.7611	0.5084	14.4211	1.7317	16.1527	4.1097	1.5932	5.7029		47,607.6371	47,607.6371	0.3325		47,614.6190
Worker	15.7889	13.8263	194.6099	0.7989	62.8566	0.4601	63.3167	16.6733	0.4269	17.1001		51,194.2634	51,194.2634	1.8090		51,232.2522
Total	**28.8061**	**93.6561**	**376.3709**	**1.3073**	**77.2777**	**2.1917**	**79.4694**	**20.7830**	**2.0200**	**22.8030**		**98,801.9006**	**98,801.9006**	**2.1415**		**98,846.8712**

3.4 Building Construction - RSPU - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9233	79.2821	179.8468	0.5087	14.4242	1.7325	16.1567	4.1109	1.5940	5.7049		47,634.7616	47,634.7616	0.3329		47,641.7519
Worker	15.2052	13.3891	189.2385	0.7989	62.8566	0.4629	63.3195	16.6733	0.4295	17.1028		50,884.3556	50,884.3556	1.7721		50,921.5689
Total	**28.1286**	**92.6712**	**369.0853**	**1.3076**	**77.2807**	**2.1955**	**79.4762**	**20.7842**	**2.0235**	**22.8077**		**98,519.1172**	**98,519.1172**	**2.1049**		**98,563.3208**

3.4 Building Construction - RSPU - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8679	78.7846	178.8491	0.5089	14.4272	1.7336	16.1608	4.1121	1.5950	5.7071		47,662.9011	47,662.9011	0.3333		47,669.9001
Worker	14.6454	12.9923	184.5692	0.7989	62.8566	0.4651	63.3216	16.6733	0.4315	17.1048		50,622.7842	50,622.7842	1.7383		50,659.2883
Total	**27.5134**	**91.7769**	**363.4183**	**1.3079**	**77.2837**	**2.1987**	**79.4824**	**20.7854**	**2.0265**	**22.8119**		**98,285.6853**	**98,285.6853**	**2.0716**		**98,329.1884**

3.4 Building Construction - RSPU - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8365	78.3882	177.9514	0.5092	14.4307	1.7357	16.1664	4.1135	1.5969	5.7104		47,694.9251	47,694.9251	0.3338		47,701.9342
Worker	14.1186	12.6229	180.3426	0.7990	62.8566	0.4664	63.3230	16.6733	0.4327	17.1060		50,403.8889	50,403.8889	1.7076		50,439.7492
Total	**26.9551**	**91.0111**	**358.2940**	**1.3082**	**77.2873**	**2.2021**	**79.4894**	**20.7868**	**2.0296**	**22.8164**		**98,098.8140**	**98,098.8140**	**2.0414**		**98,141.6834**

3.4 Building Construction - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.4 Building Construction - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.5 Paving - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	16.2371	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9074**	**16.2371**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1072	0.0967	1.2960	2.9200e-003	0.4265	1.6200e-003	0.4282	0.1092	1.4900e-003	0.1107		230.3697	230.3697	0.0106		230.5917
Total	**0.1072**	**0.0967**	**1.2960**	**2.9200e-003**	**0.4265**	**1.6200e-003**	**0.4282**	**0.1092**	**1.4900e-003**	**0.1107**		**230.3697**	**230.3697**	**0.0106**		**230.5917**

3.5 Paving - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.5 Paving - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	13.7302	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**13.7302**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0871	1.1690	2.9200e-003	0.4265	1.5900e-003	0.4281	0.1092	1.4700e-003	0.1107		221.6775	221.6775	9.7300e-003		221.8817
Total	**0.0962**	**0.0871**	**1.1690**	**2.9200e-003**	**0.4265**	**1.5900e-003**	**0.4281**	**0.1092**	**1.4700e-003**	**0.1107**		**221.6775**	**221.6775**	**9.7300e-003**		**221.8817**

3.6 Architectural Coating - MLS Stadium - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	1.7480	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**102.2251**	**1.7480**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9066	5.3270	71.4112	0.1608	12.5744	0.0893	12.6636	3.3355	0.0823	3.4178		12,693.3722	12,693.3722	0.5824		12,705.6022
Total	**5.9066**	**5.3270**	**71.4112**	**0.1608**	**12.5744**	**0.0893**	**12.6636**	**3.3355**	**0.0823**	**3.4178**		**12,693.3722**	**12,693.3722**	**0.5824**		**12,705.6022**

3.6 Architectural Coating - MLS Stadium - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.6 Architectural Coating - MLS Stadium - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	101.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	1.6046	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**102.1914**	**1.6046**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2987	4.7993	64.4108	0.1608	12.5744	0.0875	12.6619	3.3355	0.0810	3.4164		12,214.4279	12,214.4279	0.5359		12,225.6818
Total	**5.2987**	**4.7993**	**64.4108**	**0.1608**	**12.5744**	**0.0875**	**12.6619**	**3.3355**	**0.0810**	**3.4164**		**12,214.4279**	**12,214.4279**	**0.5359**		**12,225.6818**

3.7 Building Construction - KPMC Phase 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	21.1981	156.9605	269.5732	0.5087	14.3798	2.4959	16.8757	4.0940	2.2940	6.3879		49,322.5988	49,322.5988	0.3654		49,330.2714
Worker	26.4873	23.9908	321.9760	0.8036	62.8566	0.4374	63.2940	16.6733	0.4048	17.0781		61,057.3609	61,057.3609	2.6789		61,113.6170
Total	**47.6854**	**180.9513**	**591.5492**	**1.3123**	**77.2364**	**2.9333**	**80.1697**	**20.7672**	**2.6988**	**23.4660**		**110,379.9596**	**110,379.9596**	**3.0442**		**110,443.8884**

3.7 Building Construction - KPMC Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	19.2447	142.9045	251.0830	0.5083	14.3835	2.3091	16.6926	4.0953	2.1229	6.2182		48,523.6805	48,523.6805	0.3558		48,531.1519
Worker	24.3545	21.9529	297.5129	0.7994	62.8566	0.4320	63.2886	16.6733	0.4005	17.0738		58,584.6525	58,584.6525	2.4921		58,636.9862
Total	**43.5993**	**164.8574**	**548.5959**	**1.3077**	**77.2401**	**2.7412**	**79.9812**	**20.7686**	**2.5234**	**23.2920**		**107,108.3330**	**107,108.3330**	**2.8479**		**107,168.1382**

3.7 Building Construction - KPMC Phase 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.3714	123.8932	223.9760	0.5073	14.3863	2.0603	16.4466	4.0965	1.8951	5.9915		47,415.7733	47,415.7733	0.3430		47,422.9752
Worker	22.7517	20.3440	277.2553	0.7993	62.8566	0.4322	63.2888	16.6733	0.4009	17.0741		56,267.6538	56,267.6538	2.3554		56,317.1175
Total	**39.1231**	**144.2372**	**501.2313**	**1.3066**	**77.2429**	**2.4926**	**79.7354**	**20.7697**	**2.2959**	**23.0657**		**103,683.4271**	**103,683.4271**	**2.6984**		**103,740.0926**

3.7 Building Construction - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.7 Building Construction - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	15.0816	103.7525	210.5755	0.5067	14.3903	1.8558	16.2461	4.0980	1.7074	5.8053		47,389.4411	47,389.4411	0.3404		47,396.5896
Worker	21.4601	19.0119	260.5810	0.7992	62.8566	0.4344	63.2910	16.6733	0.4029	17.0762		55,318.1247	55,318.1247	2.2425		55,365.2162
Total	**36.5417**	**122.7643**	**471.1565**	**1.3060**	**77.2469**	**2.2902**	**79.5371**	**20.7712**	**2.1103**	**22.8815**		**102,707.5657**	**102,707.5657**	**2.5829**		**102,761.8058**

3.8 Paving - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.8 Paving - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	10.1285	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2308**	**10.1285**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0779	0.0690	0.9461	2.9000e-003	0.4265	1.5800e-003	0.4281	0.1092	1.4600e-003	0.1107		200.8403	200.8403	8.1400e-003		201.0113
Total	**0.0779**	**0.0690**	**0.9461**	**2.9000e-003**	**0.4265**	**1.5800e-003**	**0.4281**	**0.1092**	**1.4600e-003**	**0.1107**		**200.8403**	**200.8403**	**8.1400e-003**		**201.0113**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.9 Architectural Coating - KPMC Phase 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	199.6768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.2215	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**199.8957**	**1.2215**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2931	3.8033	52.1288	0.1599	12.5744	0.0869	12.6613	3.3355	0.0806	3.4161		11,066.3028	11,066.3028	0.4486		11,075.7234
Total	**4.2931**	**3.8033**	**52.1288**	**0.1599**	**12.5744**	**0.0869**	**12.6613**	**3.3355**	**0.0806**	**3.4161**		**11,066.3028**	**11,066.3028**	**0.4486**		**11,075.7234**

3.10 Building Construction - KPMC Phase 2 - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7934	78.0402	177.1626	0.5095	14.4343	1.7376	16.1719	4.1150	1.5986	5.7136		47,724.8722	47,724.8722	0.3342		47,731.8905
Worker	13.6305	12.3042	176.7466	0.7990	62.8566	0.4673	63.3239	16.6733	0.4336	17.1069		50,221.7787	50,221.7787	1.6807		50,257.0733
Total	**26.4240**	**90.3443**	**353.9092**	**1.3085**	**77.2909**	**2.2049**	**79.4958**	**20.7882**	**2.0322**	**22.8204**		**97,946.6509**	**97,946.6509**	**2.0149**		**97,988.9639**

3.10 Building Construction - KPMC Phase 2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7744	77.7127	176.5814	0.5098	14.4378	1.7390	16.1768	4.1164	1.5999	5.7162		47,752.7695	47,752.7695	0.3346		47,759.7951
Worker	13.2208	12.0415	173.8190	0.7990	62.8566	0.4681	63.3246	16.6733	0.4343	17.1076		50,071.0157	50,071.0157	1.6581		50,105.8351
Total	**25.9952**	**89.7542**	**350.4004**	**1.3088**	**77.2944**	**2.2071**	**79.5015**	**20.7896**	**2.0342**	**22.8238**		**97,823.7852**	**97,823.7852**	**1.9926**		**97,865.6301**

3.10 Building Construction - KPMC Phase 2 - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7554	77.4222	175.9700	0.5101	14.4411	1.7401	16.1811	4.1176	1.6009	5.7185		47,779.9528	47,779.9528	0.3349		47,786.9850
Worker	12.7841	11.8151	170.9708	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,943.4816	49,943.4816	1.6365		49,977.8486
Total	**25.5395**	**89.2373**	**346.9408**	**1.3091**	**77.2976**	**2.2083**	**79.5059**	**20.7909**	**2.0353**	**22.8262**		**97,723.4344**	**97,723.4344**	**1.9714**		**97,764.8336**

3.10 Building Construction - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**7.1510**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**		**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.10 Building Construction - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	5.7208	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	**1.2123**	**5.7208**	**16.0922**	**0.0308**		**0.0901**	**0.0901**		**0.0901**	**0.0901**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1075**		**2,887.0878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7226	77.1612	175.3174	0.5103	14.4439	1.7403	16.1842	4.1188	1.6011	5.7198		47,803.5465	47,803.5465	0.3351		47,810.5839
Worker	12.4048	11.6380	168.5213	0.7990	62.8566	0.4682	63.3248	16.6733	0.4344	17.1077		49,837.7056	49,837.7056	1.6180		49,871.6837
Total	**25.1274**	**88.7991**	**343.8387**	**1.3093**	**77.3005**	**2.2085**	**79.5090**	**20.7921**	**2.0355**	**22.8275**		**97,641.2520**	**97,641.2520**	**1.9531**		**97,682.2676**

3.11 Paving - RSPU - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0495	0.0447	0.6417	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5700e-003	0.1108		182.3373	182.3373	6.1000e-003		182.4655
Total	**0.0495**	**0.0447**	**0.6417**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5700e-003**	**0.1108**		**182.3373**	**182.3373**	**6.1000e-003**		**182.4655**

3.11 Paving - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.11 Paving - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0437	0.6311	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		181.7900	181.7900	6.0200e-003		181.9164
Total	**0.0480**	**0.0437**	**0.6311**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**181.7900**	**181.7900**	**6.0200e-003**		**181.9164**

3.12 Architectural Coating - RSPU - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6448	2.4089	34.7722	0.1598	12.5744	0.0936	12.6680	3.3355	0.0869	3.4223		10,016.6270	10,016.6270	0.3317		10,023.5926
Total	**2.6448**	**2.4089**	**34.7722**	**0.1598**	**12.5744**	**0.0936**	**12.6680**	**3.3355**	**0.0869**	**3.4223**		**10,016.6270**	**10,016.6270**	**0.3317**		**10,023.5926**

3.12 Architectural Coating - RSPU - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.12 Architectural Coating - RSPU - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	490.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**490.7170**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.5574	2.3636	34.2024	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,991.1140	9,991.1140	0.3274		9,997.9891
Total	**2.5574**	**2.3636**	**34.2024**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,991.1140**	**9,991.1140**	**0.3274**		**9,997.9891**

3.13 Paving - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**4.7892**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**		**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.13 Paving - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	3.8313	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1165**	**3.8313**	**15.4905**	**0.0275**		**0.1832**	**0.1832**		**0.1832**	**0.1832**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1001**		**2,602.0881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0423	0.6118	2.9000e-003	0.4265	1.7000e-003	0.4282	0.1092	1.5800e-003	0.1108		180.9429	180.9429	5.8700e-003		181.0663
Total	**0.0450**	**0.0423**	**0.6118**	**2.9000e-003**	**0.4265**	**1.7000e-003**	**0.4282**	**0.1092**	**1.5800e-003**	**0.1108**		**180.9429**	**180.9429**	**5.8700e-003**		**181.0663**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

3.14 Architectural Coating - KPMC Phase 2 - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	147.7406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.6062	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**147.8585**	**0.6062**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4816	2.3282	33.7124	0.1598	12.5744	0.0937	12.6680	3.3355	0.0869	3.4224		9,969.9537	9,969.9537	0.3237		9,976.7510
Total	**2.4816**	**2.3282**	**33.7124**	**0.1598**	**12.5744**	**0.0937**	**12.6680**	**3.3355**	**0.0869**	**3.4224**		**9,969.9537**	**9,969.9537**	**0.3237**		**9,976.7510**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	346.1650	530.9057	3,341.4616	13.8301	924.2692	13.8847	938.1539	246.9438	12.8258	259.7696		963,487.5766	963,487.5766	24.7608		964,007.5523
Unmitigated	346.1650	530.9057	3,341.4616	13.8301	924.2692	13.8847	938.1539	246.9438	12.8258	259.7696		963,487.5766	963,487.5766	24.7608		964,007.5523

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	25,080.00	25,080.00	25080.00	72,485,213	72,485,213
City Park	0.00	0.00	0.00		
General Office Building	50,109.29	50,109.29	50109.29	126,492,885	126,492,885
Hardware/Paint Store	1,600.20	1,600.20	1600.20	3,474,450	3,474,450
Hospital	30,319.32	30,319.32	30319.32	94,139,063	94,139,063
Hotel	8,987.00	8,987.00	8987.00	20,461,781	20,461,781
Arena	201.81	201.81	201.81	388,224	388,224
Strip Mall	53,395.00	53,395.00	53395.00	118,849,795	118,849,795
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	169,692.62	169,692.62	169,692.62	436,291,411	436,291,411

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	100	0	0
City Park	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	10.00	5.00	6.50	13.60	67.40	19.00	100	0	0
Hospital	10.00	5.00	6.50	64.90	16.10	19.00	100	0	0
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	100	0	0
Arena	10.00	5.00	6.50	0.00	81.00	19.00	100	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	100	0	0
Unenclosed Parking Structure	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828
NaturalGas Unmitigated	6.7378	60.4876	45.8417	0.3675		4.6552	4.6552		4.6552	4.6552		73,503.1549	73,503.1549	1.4088	1.3476	73,950.4828

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	33477.3	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130440	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11083.2	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	130.44	1.4067	12.7883	10.7421	0.0767		0.9719	0.9719		0.9719	0.9719		15,345.8953	15,345.8953	0.2941	0.2813	15,439.2878
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hospital	179.187	1.9324	17.5674	14.7566	0.1054		1.3351	1.3351		1.3351	1.3351		21,080.8316	21,080.8316	0.4041	0.3865	21,209.1260
Hotel	138.322	1.4917	13.5610	11.3912	0.0814		1.0306	1.0306		1.0306	1.0306		16,273.1642	16,273.1642	0.3119	0.2983	16,372.2000
Strip Mall	11.0832	0.1195	1.0866	0.9127	6.5200e-003		0.0826	0.0826		0.0826	0.0826		1,303.9001	1,303.9001	0.0250	0.0239	1,311.8354
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	130.063	1.4026	11.9862	5.1005	0.0765		0.9691	0.9691		0.9691	0.9691		15,301.5181	15,301.5181	0.2933	0.2805	15,394.6406
Arena	33.4773	0.3610	3.2821	2.7570	0.0197		0.2494	0.2494		0.2494	0.2494		3,938.5064	3,938.5064	0.0755	0.0722	3,962.4755
Total		**6.7378**	**60.4876**	**45.8417**	**0.3675**		**4.6552**	**4.6552**		**4.6552**	**4.6552**		**73,503.1549**	**73,503.1549**	**1.4088**	**1.3476**	**73,950.4828**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638
Unmitigated	441.6203	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489	0.0000	893.6209	893.6209	0.8544	0.0000	911.5638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.5523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	364.2216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	14.8464	5.7005	494.3379	0.0262		2.7489	2.7489		2.7489	2.7489		893.6209	893.6209	0.8544		911.5638
Total	**441.6203**	**5.7005**	**494.3379**	**0.0262**		**2.7489**	**2.7489**		**2.7489**	**2.7489**	**0.0000**	**893.6209**	**893.6209**	**0.8544**	**0.0000**	**911.5638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Railyards Land Use Varient - Construction and Operations Unadjusted

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5,709.00	1000sqft	131.06	5,709,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
Hotel	1,100.00	Room	36.67	1,597,200.00	0
Apartments Mid Rise	7,000.00	Dwelling Unit	184.21	7,000,000.00	18690
Hardware/Paint Store	180.00	1000sqft	4.13	180,000.00	0
Strip Mall	1,272.00	1000sqft	29.20	1,272,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Source: RSPU SEIR Project Description 3-10-16

Construction Phase - Assumed construction schedule

Trips and VMT - Assumed 750,000 cy are soil would be imported to the project site during grading.

Grading -

Vehicle Trips - Adusted the trip rates to match what was provided by F&P

Energy Use - Adjusted the energy intensity rates to reflect the lastest 2013 Title 24 Standards

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00

tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstEquipMitigation	OxidationCatalyst	0.00	20.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	NumDays	7,750.00	4,099.00
tblConstructionPhase	NumDays	775.00	261.00
tblConstructionPhase	NumDays	550.00	298.00
tblConstructionPhase	PhaseEndDate	12/29/2034	12/31/2034
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016
tblEnergyUse	T24E	322.48	241.86
tblEnergyUse	T24E	6.08	4.56
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24E	4.39	3.29
tblEnergyUse	T24E	3.98	2.99
tblEnergyUse	T24NG	8,261.25	6,195.90
tblEnergyUse	T24NG	13.07	9.80
tblEnergyUse	T24NG	4.72	3.54
tblEnergyUse	T24NG	34.77	26.10
tblEnergyUse	T24NG	4.72	3.54
tblGrading	MaterialImported	0.00	750,000.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	93,750.00	107,143.00

tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	4.18
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	2.37	11.03
tblVehicleTrips	ST_TR	82.52	8.89
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	ST_TR	42.04	59.02
tblVehicleTrips	SU_TR	6.07	4.18
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	0.98	11.03
tblVehicleTrips	SU_TR	68.65	8.89

tblVehicleTrips	SU_TR	5.95	8.17
tblVehicleTrips	SU_TR	20.43	59.02
tblVehicleTrips	WD_TR	6.59	4.18
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	11.01	11.03
tblVehicleTrips	WD_TR	51.29	8.89
tblVehicleTrips	WD_TR	44.32	59.02

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	15.1339	152.6392	164.7814	0.2883	14.7590	4.7692	19.5282	5.1877	4.3862	9.5739	0.0000	29,095.7572	29,095.7572	2.1040	0.0000	29,139.9407
2017	58.6410	224.5349	690.1504	1.3590	79.1366	4.9037	84.0403	21.2660	4.5428	25.8087	0.0000	117,526.5687	117,526.5687	4.0295	0.0000	117,611.1879
2018	50.8443	201.8425	614.7981	1.3567	79.1335	4.3919	83.5254	21.2648	4.0708	25.3356	0.0000	114,110.5962	114,110.5962	3.7688	0.0000	114,189.7418
2019	46.4067	183.6688	570.9575	1.3520	79.1371	3.9941	83.1312	21.2661	3.7023	24.9683	0.0000	110,739.9260	110,739.9260	3.5554	0.0000	110,814.5887
2020	41.6930	161.4997	523.1285	1.3509	79.1399	3.5784	82.7182	21.2672	3.3177	24.5849	0.0000	107,218.6099	107,218.6099	3.3929	0.0000	107,289.8605
2021	38.8748	138.6481	492.4755	1.3503	79.1438	3.2223	82.3661	21.2687	2.9873	24.2560	0.0000	106,210.4931	106,210.4931	3.2667	0.0000	106,279.0930
2022	37.1523	125.0408	471.8383	1.3503	79.1492	3.0434	82.1926	21.2707	2.8203	24.0910	0.0000	105,352.0660	105,352.0660	3.1683	0.0000	105,418.6010
2023	35.1130	114.0244	450.3327	1.3500	79.1542	2.8301	81.9843	21.2726	2.6219	23.8945	0.0000	104,564.7494	104,564.7494	3.0623	0.0000	104,629.0584

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	33.8666	111.3208	435.5011	1.3504	79.1595	2.7556	81.9150	21.2747	2.5514	23.8260	0.0000	103,931.5814	103,931.5814	2.9887	0.0000	103,994.3431
2025	32.7700	108.7785	422.9154	1.3507	79.1632	2.6797	81.8429	21.2761	2.4799	23.7560	0.0000	103,375.4278	103,375.4278	2.9269	0.0000	103,436.8932
2026	31.9277	107.2773	412.5608	1.3510	79.1669	2.6851	81.8520	21.2775	2.4849	23.7623	0.0000	102,907.6639	102,907.6639	2.8780	0.0000	102,968.1011
2027	31.1964	106.0386	403.7857	1.3514	79.1708	2.6927	81.8635	21.2790	2.4919	23.7709	0.0000	102,506.3780	102,506.3780	2.8345	0.0000	102,565.9013
2028	30.4520	104.9172	395.4932	1.3516	79.1739	2.6974	81.8713	21.2802	2.4963	23.7765	0.0000	102,159.7464	102,159.7464	2.7952	0.0000	102,218.4465
2029	29.7560	103.9282	388.0595	1.3519	79.1769	2.7012	81.8782	21.2814	2.4998	23.7812	0.0000	101,865.6075	101,865.6075	2.7574	0.0000	101,923.5133
2030	29.0651	98.5385	382.3297	1.3562	79.1799	2.3271	81.5070	21.2825	2.1565	23.4391	0.0000	101,961.4234	101,961.4234	2.2412	0.0000	102,008.4876
2031	28.4891	97.7679	377.0764	1.3565	79.1833	2.3305	81.5138	21.2839	2.1597	23.4436	0.0000	101,766.2686	101,766.2686	2.2099	0.0000	101,812.6765
2032	27.9418	97.0971	372.5824	1.3568	79.1869	2.3333	81.5202	21.2853	2.1623	23.4476	0.0000	101,607.1465	101,607.1465	2.1825	0.0000	101,652.9780
2033	766.4752	7.0019	37.7690	0.1683	13.0080	0.3242	13.1251	3.4505	0.3242	3.5607	0.0000	10,643.4760	10,643.4760	0.3545	0.0000	10,650.9209
2034	766.3848	3.3014	37.1796	0.1683	13.0080	0.1172	13.1252	3.4505	0.1102	3.5607	0.0000	10,617.0832	10,617.0832	0.3501	0.0000	10,624.4346
Total	**2,132.1835**	**2,247.8657**	**7,643.7151**	**22.2705**	**1,307.3305**	**54.3770**	**1,361.5004**	**352.4853**	**50.3660**	**402.6373**	**0.0000**	**1,738,160.5690**	**1,738,160.5690**	**50.8666**	**0.0000**	**1,739,228.7679**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	15.1339	137.6765	164.7814	0.2883	9.6618	4.7692	14.4310	3.1601	4.3862	7.5463	0.0000	29,095.7572	29,095.7572	2.1040	0.0000	29,139.9407

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	58.6410	219.2538	690.1504	1.3590	79.1366	4.9037	84.0403	21.2660	4.5428	25.8087	0.0000	117,526.5687	117,526.5687	4.0295	0.0000	117,611.1879
2018	50.8443	197.1903	614.7981	1.3567	79.1335	4.3919	83.5254	21.2648	4.0708	25.3356	0.0000	114,110.5962	114,110.5962	3.7688	0.0000	114,189.7418
2019	46.4067	179.4758	570.9575	1.3520	79.1371	3.9941	83.1312	21.2661	3.7023	24.9683	0.0000	110,739.9260	110,739.9260	3.5554	0.0000	110,814.5887
2020	41.6930	157.6829	523.1285	1.3509	79.1399	3.5784	82.7182	21.2672	3.3177	24.5849	0.0000	107,218.6099	107,218.6099	3.3929	0.0000	107,289.8605
2021	38.8748	135.1801	492.4755	1.3503	79.1438	3.2223	82.3661	21.2687	2.9873	24.2560	0.0000	106,210.4931	106,210.4931	3.2667	0.0000	106,279.0930
2022	37.1523	121.9336	471.8383	1.3503	79.1492	3.0434	82.1926	21.2707	2.8203	24.0910	0.0000	105,352.0660	105,352.0660	3.1683	0.0000	105,418.6010
2023	35.1130	111.1618	450.3327	1.3500	79.1542	2.8301	81.9843	21.2726	2.6219	23.8945	0.0000	104,564.7494	104,564.7494	3.0623	0.0000	104,629.0584
2024	33.8666	108.6453	435.5011	1.3504	79.1595	2.7556	81.9150	21.2747	2.5514	23.8260	0.0000	103,931.5814	103,931.5814	2.9887	0.0000	103,994.3431
2025	32.7700	106.2966	422.9154	1.3507	79.1632	2.6797	81.8429	21.2761	2.4799	23.7560	0.0000	103,375.4278	103,375.4278	2.9269	0.0000	103,436.8932
2026	31.9277	104.7954	412.5608	1.3510	79.1669	2.6851	81.8520	21.2775	2.4849	23.7623	0.0000	102,907.6639	102,907.6639	2.8780	0.0000	102,968.1011
2027	31.1964	103.5567	403.7857	1.3514	79.1708	2.6927	81.8635	21.2790	2.4919	23.7709	0.0000	102,506.3780	102,506.3780	2.8345	0.0000	102,565.9013
2028	30.4520	102.4353	395.4932	1.3516	79.1739	2.6974	81.8713	21.2802	2.4963	23.7765	0.0000	102,159.7464	102,159.7464	2.7952	0.0000	102,218.4465
2029	29.7560	101.4463	388.0595	1.3519	79.1769	2.7012	81.8782	21.2814	2.4998	23.7812	0.0000	101,865.6075	101,865.6075	2.7574	0.0000	101,923.5133
2030	29.0651	96.9549	382.3297	1.3562	79.1799	2.3271	81.5070	21.2825	2.1565	23.4391	0.0000	101,961.4234	101,961.4234	2.2412	0.0000	102,008.4876
2031	28.4891	96.1843	377.0764	1.3565	79.1833	2.3305	81.5138	21.2839	2.1597	23.4436	0.0000	101,766.2686	101,766.2686	2.2099	0.0000	101,812.6765
2032	27.9418	95.5135	372.5824	1.3568	79.1869	2.3333	81.5202	21.2853	2.1623	23.4476	0.0000	101,607.1465	101,607.1465	2.1825	0.0000	101,652.9780
2033	766.4752	5.6059	37.7690	0.1683	13.0080	0.3242	13.1251	3.4505	0.3242	3.5607	0.0000	10,643.4760	10,643.4760	0.3545	0.0000	10,650.9209
2034	766.3848	3.1301	37.1796	0.1683	13.0080	0.1172	13.1252	3.4505	0.1102	3.5607	0.0000	10,617.0832	10,617.0832	0.3501	0.0000	10,624.4346

Total	**2,132.1835**	**2,184.1189**	**7,643.7151**	**22.2705**	**1,302.2333**	**54.3770**	**1,356.4033**	**350.4577**	**50.3660**	**400.6097**	**0.0000**	**1,738,160.5690**	**1,738,160.5690**	**50.8666**	**0.0000**	**1,739,228.7679**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.84**	**0.00**	**0.00**	**0.39**	**0.00**	**0.37**	**0.58**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Energy	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
Mobile	358.0337	535.4251	3,365.8950	13.7978	920.6090	13.9278	934.5368	245.9659	12.8659	258.8318		961,265.3887	961,265.3887	24.7620		961,785.3906
Total	**807.9407**	**587.4392**	**3,974.5282**	**14.1059**	**920.6090**	**20.6491**	**941.2581**	**245.9659**	**19.5872**	**265.5531**	**0.0000**	**1,017,818.7651**	**1,017,818.7651**	**26.8205**	**1.0177**	**1,018,697.4878**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Energy	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
Mobile	358.0337	535.4251	3,365.8950	13.7978	920.6090	13.9278	934.5368	245.9659	12.8659	258.8318		961,265.3887	961,265.3887	24.7620		961,785.3906
Total	**807.9407**	**587.4392**	**3,974.5282**	**14.1059**	**920.6090**	**20.6491**	**941.2581**	**245.9659**	**19.5872**	**265.5531**	**0.0000**	**1,017,818.7651**	**1,017,818.7651**	**26.8205**	**1.0177**	**1,018,697.4878**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2016	12/31/2016	5	261	
2	Building Construction	Building Construction	1/1/2017	9/16/2032	5	4099	
3	Paving	Paving	9/17/2032	11/8/2033	5	298	
4	Architectural Coating	Architectural Coating	11/9/2033	12/31/2034	5	298	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 652.5

Acres of Paving: 0

Residential Indoor: 14,175,000; Residential Outdoor: 4,725,000; Non-Residential Indoor: 15,097,500; Non-Residential Outdoor: 5,032,500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	107,143.00	10.00	6.50	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	8,551.00	2,398.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1,710.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2676	0.0000	9.2676	3.6865	0.0000	3.6865			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**9.2676**	**3.5842**	**12.8518**	**3.6865**	**3.2975**	**6.9840**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.2 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1704	0.0000	4.1704	1.6589	0.0000	1.6589			0.0000			0.0000
Off-Road	6.4795	59.8510	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**59.8510**	**49.1374**	**0.0617**	**4.1704**	**3.5842**	**7.7547**	**1.6589**	**3.2975**	**4.9564**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5743	77.7534	114.6788	0.2246	5.3393	1.1838	6.5231	1.4608	1.0877	2.5485		22,520.8905	22,520.8905	0.1613		22,524.2770
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414		159.8861	159.8861	7.7200e-003		160.0483
Total	**8.6545**	**77.8255**	**115.6440**	**0.2265**	**5.4914**	**1.1849**	**6.6763**	**1.5012**	**1.0887**	**2.5899**		**22,680.7765**	**22,680.7765**	**0.1690**		**22,684.3253**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	24.9837	170.5727	302.6097	0.5004	14.0892	2.6607	16.7499	4.0115	2.4439	6.4554		49,223.7110	49,223.7110	0.3671		49,231.4206
Worker	30.5549	27.5566	369.4116	0.8318	65.0474	0.4618	65.5092	17.2544	0.4260	17.6804		65,663.0524	65,663.0524	3.0127		65,726.3183
Total	**55.5387**	**198.1293**	**672.0213**	**1.3322**	**79.1366**	**3.1225**	**82.2591**	**21.2660**	**2.8698**	**24.1358**		**114,886.7634**	**114,886.7634**	**3.3798**		**114,957.7389**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	21.1245	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**21.1245**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	24.9837	170.5727	302.6097	0.5004	14.0892	2.6607	16.7499	4.0115	2.4439	6.4554		49,223.7110	49,223.7110	0.3671		49,231.4206
Worker	30.5549	27.5566	369.4116	0.8318	65.0474	0.4618	65.5092	17.2544	0.4260	17.6804		65,663.0524	65,663.0524	3.0127		65,726.3183
Total	**55.5387**	**198.1293**	**672.0213**	**1.3322**	**79.1366**	**3.1225**	**82.2591**	**21.2660**	**2.8698**	**24.1358**		**114,886.7634**	**114,886.7634**	**3.3798**		**114,957.7389**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	20.7651	153.7546	264.0672	0.4983	14.0861	2.4450	16.5310	4.0103	2.2471	6.2575		48,315.1927	48,315.1927	0.3579		48,322.7087
Worker	27.4105	24.8270	333.1982	0.8316	65.0474	0.4527	65.5000	17.2544	0.4189	17.6733		63,185.4645	63,185.4645	2.7722		63,243.6814
Total	**48.1756**	**178.5816**	**597.2654**	**1.3299**	**79.1335**	**2.8976**	**82.0311**	**21.2648**	**2.6660**	**23.9308**		**111,500.6572**	**111,500.6572**	**3.1301**		**111,566.3901**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	18.6087	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**18.6087**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	20.7651	153.7546	264.0672	0.4983	14.0861	2.4450	16.5310	4.0103	2.2471	6.2575		48,315.1927	48,315.1927	0.3579		48,322.7087
Worker	27.4105	24.8270	333.1982	0.8316	65.0474	0.4527	65.5000	17.2544	0.4189	17.6733		63,185.4645	63,185.4645	2.7722		63,243.6814
Total	**48.1756**	**178.5816**	**597.2654**	**1.3299**	**79.1335**	**2.8976**	**82.0311**	**21.2648**	**2.6660**	**23.9308**		**111,500.6572**	**111,500.6572**	**3.1301**		**111,566.3901**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	18.8516	139.9857	245.9547	0.4979	14.0897	2.2620	16.3517	4.0117	2.0795	6.0912		47,532.5923	47,532.5923	0.3485		47,539.9111
Worker	25.2034	22.7181	307.8825	0.8273	65.0474	0.4471	65.4945	17.2544	0.4145	17.6689		60,626.5719	60,626.5719	2.5789		60,680.7297
Total	**44.0550**	**162.7037**	**553.8371**	**1.3252**	**79.1371**	**2.7091**	**81.8462**	**21.2661**	**2.4940**	**23.7601**		**108,159.1642**	**108,159.1642**	**2.9275**		**108,220.6408**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	16.7720	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**16.7720**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	18.8516	139.9857	245.9547	0.4979	14.0897	2.2620	16.3517	4.0117	2.0795	6.0912		47,532.5923	47,532.5923	0.3485		47,539.9111
Worker	25.2034	22.7181	307.8825	0.8273	65.0474	0.4471	65.4945	17.2544	0.4145	17.6689		60,626.5719	60,626.5719	2.5789		60,680.7297
Total	**44.0550**	**162.7037**	**553.8371**	**1.3252**	**79.1371**	**2.7091**	**81.8462**	**21.2661**	**2.4940**	**23.7601**		**108,159.1642**	**108,159.1642**	**2.9275**		**108,220.6408**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.0370	121.3627	219.4013	0.4969	14.0925	2.0182	16.1107	4.0128	1.8564	5.8692		46,447.3138	46,447.3138	0.3359		46,454.3687
Worker	23.5447	21.0531	286.9188	0.8272	65.0474	0.4473	65.4947	17.2544	0.4148	17.6693		58,228.8161	58,228.8161	2.4375		58,280.0038
Total	**39.5817**	**142.4158**	**506.3201**	**1.3241**	**79.1399**	**2.4655**	**81.6054**	**21.2672**	**2.2712**	**23.5384**		**104,676.1300**	**104,676.1300**	**2.7735**		**104,734.3725**

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	15.2671	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**15.2671**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	16.0370	121.3627	219.4013	0.4969	14.0925	2.0182	16.1107	4.0128	1.8564	5.8692		46,447.3138	46,447.3138	0.3359		46,454.3687
Worker	23.5447	21.0531	286.9188	0.8272	65.0474	0.4473	65.4947	17.2544	0.4148	17.6693		58,228.8161	58,228.8161	2.4375		58,280.0038
Total	**39.5817**	**142.4158**	**506.3201**	**1.3241**	**79.1399**	**2.4655**	**81.6054**	**21.2672**	**2.2712**	**23.5384**		**104,676.1300**	**104,676.1300**	**2.7735**		**104,734.3725**

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**17.3403**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**		**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7736	101.6333	206.2745	0.4964	14.0964	1.8179	15.9142	4.0143	1.6725	5.6867		46,421.5195	46,421.5195	0.3335		46,428.5220
Worker	22.2081	19.6745	269.6633	0.8271	65.0474	0.4496	65.4969	17.2544	0.4170	17.6714		57,246.1919	57,246.1919	2.3206		57,294.9248
Total	**36.9817**	**121.3079**	**475.9378**	**1.3235**	**79.1438**	**2.2674**	**81.4112**	**21.2687**	**2.0895**	**23.3581**		**103,667.7114**	**103,667.7114**	**2.6541**		**103,723.4468**

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	13.8722	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	**1.8931**	**13.8722**	**16.5376**	**0.0268**		**0.9549**	**0.9549**		**0.8979**	**0.8979**	**0.0000**	**2,542.7817**	**2,542.7817**	**0.6126**		**2,555.6462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.7736	101.6333	206.2745	0.4964	14.0964	1.8179	15.9142	4.0143	1.6725	5.6867		46,421.5195	46,421.5195	0.3335		46,428.5220
Worker	22.2081	19.6745	269.6633	0.8271	65.0474	0.4496	65.4969	17.2544	0.4170	17.6714		57,246.1919	57,246.1919	2.3206		57,294.9248
Total	**36.9817**	**121.3079**	**475.9378**	**1.3235**	**79.1438**	**2.2674**	**81.4112**	**21.2687**	**2.0895**	**23.3581**		**103,667.7114**	**103,667.7114**	**2.6541**		**103,723.4468**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**15.5364**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**		**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.4303	91.0122	201.0324	0.4965	14.1018	1.7854	15.8873	4.0163	1.6426	5.6589		46,440.1565	46,440.1565	0.3387		46,447.2682
Worker	21.0228	18.4923	254.4783	0.8270	65.0474	0.4523	65.4997	17.2544	0.4195	17.6739		56,368.1598	56,368.1598	2.2212		56,414.8042
Total	**35.4531**	**109.5044**	**455.5107**	**1.3235**	**79.1492**	**2.2377**	**81.3869**	**21.2707**	**2.0621**	**23.3329**		**102,808.3164**	**102,808.3164**	**2.5598**		**102,862.0724**

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	12.4291	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	**1.6992**	**12.4291**	**16.3276**	**0.0268**		**0.8057**	**0.8057**		**0.7581**	**0.7581**	**0.0000**	**2,543.7497**	**2,543.7497**	**0.6085**		**2,556.5286**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	14.4303	91.0122	201.0324	0.4965	14.1018	1.7854	15.8873	4.0163	1.6426	5.6589		46,440.1565	46,440.1565	0.3387		46,447.2682
Worker	21.0228	18.4923	254.4783	0.8270	65.0474	0.4523	65.4997	17.2544	0.4195	17.6739		56,368.1598	56,368.1598	2.2212		56,414.8042
Total	**35.4531**	**109.5044**	**455.5107**	**1.3235**	**79.1492**	**2.2377**	**81.3869**	**21.2707**	**2.0621**	**23.3329**		**102,808.3164**	**102,808.3164**	**2.5598**		**102,862.0724**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**14.3126**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**		**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.5791	82.2331	192.9145	0.4962	14.1068	1.6780	15.7848	4.0182	1.5438	5.5620		46,433.1426	46,433.1426	0.3214		46,439.8911
Worker	19.9678	17.4787	241.2089	0.8269	65.0474	0.4554	65.5028	17.2544	0.4225	17.6769		55,586.9806	55,586.9806	2.1366		55,631.8482
Total	**33.5469**	**99.7117**	**434.1234**	**1.3232**	**79.1542**	**2.1334**	**81.2875**	**21.2726**	**1.9663**	**23.2389**		**102,020.1231**	**102,020.1231**	**2.4579**		**102,071.7393**

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	11.4501	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	**1.5661**	**11.4501**	**16.2093**	**0.0268**		**0.6967**	**0.6967**		**0.6557**	**0.6557**	**0.0000**	**2,544.6262**	**2,544.6262**	**0.6044**		**2,557.3191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.5791	82.2331	192.9145	0.4962	14.1068	1.6780	15.7848	4.0182	1.5438	5.5620		46,433.1426	46,433.1426	0.3214		46,439.8911
Worker	19.9678	17.4787	241.2089	0.8269	65.0474	0.4554	65.5028	17.2544	0.4225	17.6769		55,586.9806	55,586.9806	2.1366		55,631.8482
Total	**33.5469**	**99.7117**	**434.1234**	**1.3232**	**79.1542**	**2.1334**	**81.2875**	**21.2726**	**1.9663**	**23.2389**		**102,020.1231**	**102,020.1231**	**2.4579**		**102,071.7393**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**13.3774**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**		**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.3663	81.3232	189.1153	0.4967	14.1121	1.6862	15.7982	4.0203	1.5513	5.5715		46,486.6465	46,486.6465	0.3228		46,493.4253
Worker	19.0351	16.6202	230.2526	0.8268	65.0474	0.4589	65.5063	17.2544	0.4257	17.6801		54,899.8194	54,899.8194	2.0649		54,943.1828
Total	**32.4013**	**97.9434**	**419.3679**	**1.3236**	**79.1595**	**2.1450**	**81.3045**	**21.2747**	**1.9770**	**23.2517**		**101,386.4659**	**101,386.4659**	**2.3877**		**101,436.6082**

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	10.7019	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	**1.4653**	**10.7019**	**16.1332**	**0.0268**		**0.6106**	**0.6106**		**0.5744**	**0.5744**	**0.0000**	**2,545.1154**	**2,545.1154**	**0.6009**		**2,557.7349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.3663	81.3232	189.1153	0.4967	14.1121	1.6862	15.7982	4.0203	1.5513	5.5715		46,486.6465	46,486.6465	0.3228		46,493.4253
Worker	19.0351	16.6202	230.2526	0.8268	65.0474	0.4589	65.5063	17.2544	0.4257	17.6801		54,899.8194	54,899.8194	2.0649		54,943.1828
Total	**32.4013**	**97.9434**	**419.3679**	**1.3236**	**79.1595**	**2.1450**	**81.3045**	**21.2747**	**1.9770**	**23.2517**		**101,386.4659**	**101,386.4659**	**2.3877**		**101,436.6082**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1435	80.4629	185.6086	0.4971	14.1158	1.6916	15.8074	4.0217	1.5563	5.5780		46,526.4913	46,526.4913	0.3239		46,533.2931
Worker	18.2650	15.9060	221.2550	0.8268	65.0474	0.4631	65.5105	17.2544	0.4297	17.6841		54,303.0460	54,303.0460	2.0055		54,345.1616
Total	**31.4085**	**96.3689**	**406.8636**	**1.3238**	**79.1632**	**2.1547**	**81.3179**	**21.2761**	**1.9860**	**23.2621**		**100,829.5373**	**100,829.5373**	**2.3294**		**100,878.4547**

3.3 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	13.1435	80.4629	185.6086	0.4971	14.1158	1.6916	15.8074	4.0217	1.5563	5.5780		46,526.4913	46,526.4913	0.3239		46,533.2931
Worker	18.2650	15.9060	221.2550	0.8268	65.0474	0.4631	65.5105	17.2544	0.4297	17.6841		54,303.0460	54,303.0460	2.0055		54,345.1616
Total	**31.4085**	**96.3689**	**406.8636**	**1.3238**	**79.1632**	**2.1547**	**81.3179**	**21.2761**	**1.9860**	**23.2621**		**100,829.5373**	**100,829.5373**	**2.3294**		**100,878.4547**

3.3 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9838	79.5576	182.7348	0.4974	14.1195	1.6920	15.8115	4.0231	1.5567	5.5797		46,567.8459	46,567.8459	0.3244		46,574.6580
Worker	17.5824	15.3100	213.7743	0.8268	65.0474	0.4681	65.5155	17.2544	0.4343	17.6887		53,793.9275	53,793.9275	1.9561		53,835.0045
Total	**30.5662**	**94.8676**	**396.5091**	**1.3242**	**79.1669**	**2.1601**	**81.3270**	**21.2775**	**1.9909**	**23.2684**		**100,361.7733**	**100,361.7733**	**2.2804**		**100,409.6626**

3.3 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.9838	79.5576	182.7348	0.4974	14.1195	1.6920	15.8115	4.0231	1.5567	5.5797		46,567.8459	46,567.8459	0.3244		46,574.6580
Worker	17.5824	15.3100	213.7743	0.8268	65.0474	0.4681	65.5155	17.2544	0.4343	17.6887		53,793.9275	53,793.9275	1.9561		53,835.0045
Total	**30.5662**	**94.8676**	**396.5091**	**1.3242**	**79.1669**	**2.1601**	**81.3270**	**21.2775**	**1.9909**	**23.2684**		**100,361.7733**	**100,361.7733**	**2.2804**		**100,409.6626**

3.3 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8963	78.8475	180.5678	0.4978	14.1234	1.6954	15.8188	4.0246	1.5598	5.5843		46,606.2298	46,606.2298	0.3252		46,613.0597
Worker	16.9385	14.7815	207.1662	0.8267	65.0474	0.4723	65.5197	17.2544	0.4382	17.6926		53,354.2576	53,354.2576	1.9117		53,394.4030
Total	**29.8349**	**93.6290**	**387.7339**	**1.3245**	**79.1708**	**2.1677**	**81.3385**	**21.2790**	**1.9980**	**23.2770**		**99,960.4874**	**99,960.4874**	**2.2369**		**100,007.4627**

3.3 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.8963	78.8475	180.5678	0.4978	14.1234	1.6954	15.8188	4.0246	1.5598	5.5843		46,606.2298	46,606.2298	0.3252		46,613.0597
Worker	16.9385	14.7815	207.1662	0.8267	65.0474	0.4723	65.5197	17.2544	0.4382	17.6926		53,354.2576	53,354.2576	1.9117		53,394.4030
Total	**29.8349**	**93.6290**	**387.7339**	**1.3245**	**79.1708**	**2.1677**	**81.3385**	**21.2790**	**1.9980**	**23.2770**		**99,960.4874**	**99,960.4874**	**2.2369**		**100,007.4627**

3.3 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7513	78.1994	178.0486	0.4980	14.1265	1.6963	15.8228	4.0258	1.5606	5.5864		46,635.2589	46,635.2589	0.3257		46,642.0982
Worker	16.3392	14.3082	201.3928	0.8268	65.0474	0.4761	65.5235	17.2544	0.4417	17.6962		52,978.5969	52,978.5969	1.8720		53,017.9098
Total	**29.0905**	**92.5075**	**379.4414**	**1.3248**	**79.1739**	**2.1724**	**81.3463**	**21.2802**	**2.0023**	**23.2826**		**99,613.8559**	**99,613.8559**	**2.1977**		**99,660.0080**

3.3 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.7513	78.1994	178.0486	0.4980	14.1265	1.6963	15.8228	4.0258	1.5606	5.5864		46,635.2589	46,635.2589	0.3257		46,642.0982
Worker	16.3392	14.3082	201.3928	0.8268	65.0474	0.4761	65.5235	17.2544	0.4417	17.6962		52,978.5969	52,978.5969	1.8720		53,017.9098
Total	**29.0905**	**92.5075**	**379.4414**	**1.3248**	**79.1739**	**2.1724**	**81.3463**	**21.2802**	**2.0023**	**23.2826**		**99,613.8559**	**99,613.8559**	**2.1977**		**99,660.0080**

3.3 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**12.4097**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**		**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6594	77.6627	176.1735	0.4983	14.1296	1.6972	15.8267	4.0270	1.5614	5.5884		46,661.8294	46,661.8294	0.3261		46,668.6769
Worker	15.7352	13.8558	195.8342	0.8268	65.0474	0.4791	65.5264	17.2544	0.4445	17.6989		52,657.8875	52,657.8875	1.8338		52,696.3979
Total	**28.3946**	**91.5185**	**372.0077**	**1.3250**	**79.1769**	**2.1762**	**81.3531**	**21.2814**	**2.0059**	**23.2873**		**99,319.7169**	**99,319.7169**	**2.1599**		**99,365.0747**

3.3 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	9.9278	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	**1.3615**	**9.9278**	**16.0518**	**0.0269**		**0.5250**	**0.5250**		**0.4939**	**0.4939**	**0.0000**	**2,545.8905**	**2,545.8905**	**0.5975**		**2,558.4386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6594	77.6627	176.1735	0.4983	14.1296	1.6972	15.8267	4.0270	1.5614	5.5884		46,661.8294	46,661.8294	0.3261		46,668.6769
Worker	15.7352	13.8558	195.8342	0.8268	65.0474	0.4791	65.5264	17.2544	0.4445	17.6989		52,657.8875	52,657.8875	1.8338		52,696.3979
Total	**28.3946**	**91.5185**	**372.0077**	**1.3250**	**79.1769**	**2.1762**	**81.3531**	**21.2814**	**2.0059**	**23.2873**		**99,319.7169**	**99,319.7169**	**2.1599**		**99,365.0747**

3.3 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6051	77.1755	175.1962	0.4985	14.1325	1.6982	15.8307	4.0281	1.5624	5.5905		46,689.3941	46,689.3941	0.3265		46,696.2502
Worker	15.1559	13.4451	191.0022	0.8268	65.0474	0.4813	65.5287	17.2544	0.4465	17.7010		52,387.1993	52,387.1993	1.7989		52,424.9757
Total	**27.7610**	**90.6206**	**366.1984**	**1.3253**	**79.1799**	**2.1795**	**81.3594**	**21.2825**	**2.0089**	**23.2915**		**99,076.5934**	**99,076.5934**	**2.1254**		**99,121.2259**

3.3 Building Construction - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.6051	77.1755	175.1962	0.4985	14.1325	1.6982	15.8307	4.0281	1.5624	5.5905		46,689.3941	46,689.3941	0.3265		46,696.2502
Worker	15.1559	13.4451	191.0022	0.8268	65.0474	0.4813	65.5287	17.2544	0.4465	17.7010		52,387.1993	52,387.1993	1.7989		52,424.9757
Total	**27.7610**	**90.6206**	**366.1984**	**1.3253**	**79.1799**	**2.1795**	**81.3594**	**21.2825**	**2.0089**	**23.2915**		**99,076.5934**	**99,076.5934**	**2.1254**		**99,121.2259**

3.3 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5743	76.7871	174.3168	0.4988	14.1360	1.7002	15.8362	4.0295	1.5642	5.5937		46,720.7641	46,720.7641	0.3270		46,727.6300
Worker	14.6106	13.0629	186.6283	0.8268	65.0474	0.4827	65.5301	17.2544	0.4478	17.7022		52,160.6746	52,160.6746	1.7672		52,197.7848
Total	**27.1850**	**89.8500**	**360.9451**	**1.3257**	**79.1834**	**2.1829**	**81.3662**	**21.2839**	**2.0120**	**23.2960**		**98,881.4387**	**98,881.4387**	**2.0941**		**98,925.4148**

3.3 Building Construction - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5743	76.7871	174.3168	0.4988	14.1360	1.7002	15.8362	4.0295	1.5642	5.5937		46,720.7641	46,720.7641	0.3270		46,727.6300
Worker	14.6106	13.0629	186.6283	0.8268	65.0474	0.4827	65.5301	17.2544	0.4478	17.7022		52,160.6746	52,160.6746	1.7672		52,197.7848
Total	**27.1850**	**89.8500**	**360.9451**	**1.3257**	**79.1834**	**2.1829**	**81.3662**	**21.2839**	**2.0120**	**23.2960**		**98,881.4387**	**98,881.4387**	**2.0941**		**98,925.4148**

3.3 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**7.9179**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**		**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5321	76.4462	173.5441	0.4991	14.1395	1.7021	15.8416	4.0309	1.5660	5.5969		46,750.0995	46,750.0995	0.3274		46,756.9745
Worker	14.1056	12.7330	182.9070	0.8268	65.0474	0.4836	65.5310	17.2544	0.4487	17.7031		51,972.2171	51,972.2171	1.7393		52,008.7419
Total	**26.6377**	**89.1792**	**356.4511**	**1.3260**	**79.1869**	**2.1857**	**81.3726**	**21.2853**	**2.0147**	**23.3000**		**98,722.3166**	**98,722.3166**	**2.0667**		**98,765.7163**

3.3 Building Construction - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	6.3343	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476	0.0000	2,884.8300	2,884.8300	0.1158		2,887.2617
Total	**1.3041**	**6.3343**	**16.1313**	**0.0308**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**0.0000**	**2,884.8300**	**2,884.8300**	**0.1158**		**2,887.2617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	12.5321	76.4462	173.5441	0.4991	14.1395	1.7021	15.8416	4.0309	1.5660	5.5969		46,750.0995	46,750.0995	0.3274		46,756.9745
Worker	14.1056	12.7330	182.9070	0.8268	65.0474	0.4836	65.5310	17.2544	0.4487	17.7031		51,972.2171	51,972.2171	1.7393		52,008.7419
Total	**26.6377**	**89.1792**	**356.4511**	**1.3260**	**79.1869**	**2.1857**	**81.3726**	**21.2853**	**2.0147**	**23.3000**		**98,722.3166**	**98,722.3166**	**2.0667**		**98,765.7163**

3.4 Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0247	0.0223	0.3209	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		91.1687	91.1687	3.0500e-003		91.2327
Total	**0.0247**	**0.0223**	**0.3209**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**91.1687**	**91.1687**	**3.0500e-003**		**91.2327**

3.4 Paving - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0247	0.0223	0.3209	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		91.1687	91.1687	3.0500e-003		91.2327
Total	**0.0247**	**0.0223**	**0.3209**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**91.1687**	**91.1687**	**3.0500e-003**		**91.2327**

3.4 Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	6.9800	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234		2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**6.9800**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**		**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0219	0.3155	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		90.8950	90.8950	3.0100e-003		90.9582
Total	**0.0240**	**0.0219**	**0.3155**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**90.8950**	**90.8950**	**3.0100e-003**		**90.9582**

3.4 Paving - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3549	5.5840	15.5192	0.0275		0.3234	0.3234		0.3234	0.3234	0.0000	2,599.9866	2,599.9866	0.1219		2,602.5460
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3549**	**5.5840**	**15.5192**	**0.0275**		**0.3234**	**0.3234**		**0.3234**	**0.3234**	**0.0000**	**2,599.9866**	**2,599.9866**	**0.1219**		**2,602.5460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0219	0.3155	1.4500e-003	0.1141	8.5000e-004	0.1150	0.0303	7.9000e-004	0.0311		90.8950	90.8950	3.0100e-003		90.9582
Total	**0.0240**	**0.0219**	**0.3155**	**1.4500e-003**	**0.1141**	**8.5000e-004**	**0.1150**	**0.0303**	**7.9000e-004**	**0.0311**		**90.8950**	**90.8950**	**3.0100e-003**		**90.9582**

3.5 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.7360	2.4920	35.9713	0.1654	13.0080	0.0969	13.1048	3.4505	0.0899	3.5404		10,362.0279	10,362.0279	0.3431		10,369.2337
Total	**2.7360**	**2.4920**	**35.9713**	**0.1654**	**13.0080**	**0.0969**	**13.1048**	**3.4505**	**0.0899**	**3.5404**		**10,362.0279**	**10,362.0279**	**0.3431**		**10,369.2337**

3.5 Architectural Coating - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.7360	2.4920	35.9713	0.1654	13.0080	0.0969	13.1048	3.4505	0.0899	3.5404		10,362.0279	10,362.0279	0.3431		10,369.2337
Total	**2.7360**	**2.4920**	**35.9713**	**0.1654**	**13.0080**	**0.0969**	**13.1048**	**3.4505**	**0.0899**	**3.5404**		**10,362.0279**	**10,362.0279**	**0.3431**		**10,369.2337**

3.5 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6456	2.4451	35.3818	0.1654	13.0080	0.0969	13.1049	3.4505	0.0899	3.5404		10,335.6352	10,335.6352	0.3387		10,342.7473
Total	**2.6456**	**2.4451**	**35.3818**	**0.1654**	**13.0080**	**0.0969**	**13.1049**	**3.4505**	**0.0899**	**3.5404**		**10,335.6352**	**10,335.6352**	**0.3387**		**10,342.7473**

3.5 Architectural Coating - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	763.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.6850	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**763.7392**	**0.6850**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6456	2.4451	35.3818	0.1654	13.0080	0.0969	13.1049	3.4505	0.0899	3.5404		10,335.6352	10,335.6352	0.3387		10,342.7473
Total	**2.6456**	**2.4451**	**35.3818**	**0.1654**	**13.0080**	**0.0969**	**13.1049**	**3.4505**	**0.0899**	**3.5404**		**10,335.6352**	**10,335.6352**	**0.3387**		**10,342.7473**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	358.0337	535.4251	3,365.8950	13.7978	920.6090	13.9278	934.5368	245.9659	12.8659	258.8318		961,265.3887	961,265.3887	24.7620		961,785.3906
Unmitigated	358.0337	535.4251	3,365.8950	13.7978	920.6090	13.9278	934.5368	245.9659	12.8659	258.8318		961,265.3887	961,265.3887	24.7620		961,785.3906

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	29,260.00	29,260.00	29260.00	84,566,082	84,566,082
City Park	0.00	0.00	0.00		
General Office Building	62,970.27	62,970.27	62970.27	158,958,371	158,958,371
Hardware/Paint Store	1,600.20	1,600.20	1600.20	3,474,450	3,474,450
Hotel	8,987.00	8,987.00	8987.00	20,461,781	20,461,781
Strip Mall	75,073.44	75,073.44	75073.44	167,102,967	167,102,967
Total	177,890.91	177,890.91	177,890.91	434,563,652	434,563,652

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	100	0	0
City Park	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	100	0	0
Hardware/Paint Store	10.00	5.00	6.50	13.60	67.40	19.00	100	0	0
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	100	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507436	0.069689	0.176394	0.141978	0.043819	0.006429	0.022470	0.018349	0.002445	0.002160	0.006237	0.000474	0.002120

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307
NaturalGas Unmitigated	5.0886	45.3672	32.3126	0.2776		3.5157	3.5157		3.5157	3.5157		55,511.6957	55,511.6957	1.0640	1.0177	55,849.5307

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	163919	1.7678	16.0705	13.4992	0.0964		1.2214	1.2214		1.2214	1.2214		19,284.5512	19,284.5512	0.3696	0.3536	19,401.9137
Hardware/Paint Store	2204.38	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hotel	138409	1.4927	13.5696	11.3984	0.0814		1.0313	1.0313		1.0313	1.0313		16,283.4604	16,283.4604	0.3121	0.2985	16,382.5589
Strip Mall	15577.6	0.1680	1.5272	1.2829	9.1600e-003		0.1161	0.1161		0.1161	0.1161		1,832.6640	1,832.6640	0.0351	0.0336	1,843.8173
Apartments Mid Rise	151739	1.6364	13.9838	5.9506	0.0893		1.1306	1.1306		1.1306	1.1306		17,851.6809	17,851.6809	0.3422	0.3273	17,960.3233
Total		**5.0886**	**45.3672**	**32.3126**	**0.2776**		**3.5157**	**3.5157**		**3.5157**	**3.5157**		**55,511.6957**	**55,511.6957**	**1.0640**	**1.0177**	**55,849.5307**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	163.919	1.7678	16.0705	13.4992	0.0964		1.2214	1.2214		1.2214	1.2214		19,284.5512	19,284.5512	0.3696	0.3536	19,401.9137
Hardware/Paint Store	2.20438	0.0238	0.2161	0.1815	1.3000e-003		0.0164	0.0164		0.0164	0.0164		259.3392	259.3392	4.9700e-003	4.7500e-003	260.9175
Hotel	138.409	1.4927	13.5696	11.3984	0.0814		1.0313	1.0313		1.0313	1.0313		16,283.4604	16,283.4604	0.3121	0.2985	16,382.5589
Strip Mall	15.5776	0.1680	1.5272	1.2829	9.1600e-003		0.1161	0.1161		0.1161	0.1161		1,832.6640	1,832.6640	0.0351	0.0336	1,843.8173
Apartments Mid Rise	151.739	1.6364	13.9838	5.9506	0.0893		1.1306	1.1306		1.1306	1.1306		17,851.6809	17,851.6809	0.3422	0.3273	17,960.3233
Total		**5.0886**	**45.3672**	**32.3126**	**0.2776**		**3.5157**	**3.5157**		**3.5157**	**3.5157**		**55,511.6957**	**55,511.6957**	**1.0640**	**1.0177**	**55,849.5307**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665
Unmitigated	444.8185	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056	0.0000	1,041.6806	1,041.6806	0.9946	0.0000	1,062.5665

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.3439					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	365.1910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	17.2836	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056		1,041.6806	1,041.6806	0.9946		1,062.5665
Total	**444.8185**	**6.6469**	**576.3206**	**0.0306**		**3.2056**	**3.2056**		**3.2056**	**3.2056**	**0.0000**	**1,041.6806**	**1,041.6806**	**0.9946**	**0.0000**	**1,062.5665**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	62.3439					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	365.1910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	17.2836	6.6469	576.3206	0.0306		3.2056	3.2056		3.2056	3.2056		1,041.6806	1,041.6806	0.9946		1,062.5665
Total	**444.8185**	**6.6469**	**576.3206**	**0.0306**		**3.2056**	**3.2056**		**3.2056**	**3.2056**	**0.0000**	**1,041.6806**	**1,041.6806**	**0.9946**	**0.0000**	**1,062.5665**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

2. CALINE-4 Outputs

RSPU CALINE-4 Output

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bannon St / Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	1339	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	975	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	372	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	0	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	10.	3.3	1.2	0.0	0.0	0.0
2. R2	188.	3.3	0.0	1.0	0.2	0.0
3. R3	352.	3.6	1.2	0.0	0.2	0.0
4. R4	8.	3.4	1.2	0.0	0.0	0.0

♀

J St & 3rd St & I-5 Off-Ramps.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: J St / 3rd St / I-5 Off-Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	576	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	975	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1766	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1893	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	172.	4.0	0.0	1.0	0.0	0.9
2. R2	262.	4.0	0.3	0.0	0.0	1.5
3. R3	278.	4.2	0.0	0.5	0.0	1.5
4. R4	82.	4.1	0.0	0.5	1.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: J St / 5th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	911	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	661	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1477	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1775	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.9	0.5	0.0	1.3	0.0
2. R2	262.	4.1	0.5	0.0	0.0	1.5
3. R3	278.	4.0	0.0	0.3	0.0	1.5
4. R4	82.	3.8	0.0	0.3	1.3	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: N B St / N 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	879	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	768	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	626	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	867	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	172.	3.4	0.0	0.8	0.0	0.4
2. R2	262.	3.5	0.4	0.0	0.0	0.9
3. R3	278.	3.4	0.0	0.4	0.0	0.9
4. R4	8.	3.5	0.9	0.0	0.0	0.4

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: N B St / N 12th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	302	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	375	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	999	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	922	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.3	0.2	0.0	1.0	0.0
2. R2	262.	3.2	0.2	0.0	0.0	0.9
3. R3	278.	3.2	0.0	0.2	0.0	0.9
4. R4	82.	3.3	0.0	0.2	1.0	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	525	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	1418	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1397	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	2012	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	172.	4.4	0.0	1.3	0.0	1.0
2. R2	188.	4.1	0.0	1.3	0.7	0.0
3. R3	278.	4.4	0.0	0.7	0.0	1.6
4. R4	82.	4.1	0.0	0.7	1.3	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 8th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	265	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	0	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1150	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1397	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.4	0.1	0.0	1.1	0.0
2. R2	262.	3.5	0.1	0.0	0.0	1.3
3. R3	278.	3.4	0.0	0.0	0.0	1.3
4. R4	280.	3.4	0.0	0.0	0.0	1.2

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd & Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	299	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	1339	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1944	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	3234	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	172.	4.8	0.0	1.2	0.0	1.5
2. R2	260.	4.6	0.2	0.0	0.0	2.3
3. R3	280.	5.1	0.0	0.7	0.0	2.3
4. R4	82.	4.4	0.0	0.7	1.6	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd & I-5 Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	2817	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	1233	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	3660	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	3338	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	100.	6.1	1.3	0.0	2.6	0.0
2. R2	260.	5.8	1.3	0.0	0.0	2.4
3. R3	350.	5.9	2.0	0.0	1.7	0.0
4. R4	10.	5.7	2.0	0.0	0.0	1.5

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd & I-5 SB Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	914	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	927	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	2060	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	2003	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	4.2	0.5	0.0	1.6	0.0
2. R2	262.	4.2	0.5	0.0	0.0	1.6
3. R3	278.	4.2	0.0	0.5	0.0	1.6
4. R4	82.	4.2	0.0	0.5	1.6	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd & N 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	197	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	800	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1965	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1496	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.8	0.1	0.0	1.6	0.0
2. R2	188.	3.9	0.0	0.8	0.9	0.0
3. R3	278.	3.9	0.0	0.4	0.0	1.3
4. R4	82.	4.1	0.0	0.4	1.6	0.0

♀

Richards Blvd & N 12th St & 16th St.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd & NN 12th St & 16th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U= 0.5 M/S Z0= 400. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 2.1 PPM
SIGTH= 5. DEGREES TEMP= 4.4 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	7566	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	6105	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	23	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1830	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	170.	7.4	0.0	4.4	0.0	0.9
2. R2	350.	7.6	5.4	0.0	0.0	0.0
3. R3	350.	7.6	5.5	0.0	0.0	0.0
4. R4	10.	8.5	5.5	0.0	0.0	0.9

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: South Park St / Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	975	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	909	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	560	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	0	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.2	0.5	0.0	0.6	0.0
2. R2	188.	3.3	0.0	0.9	0.3	0.0
3. R3	352.	3.4	1.0	0.0	0.3	0.0
4. R4	82.	3.2	0.0	0.5	0.6	0.0

♀

KP Medical Center CALINE-4 Output

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bannon Street/Bercut Drive
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1293	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	979	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	320	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	0	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	10.	*	3.3	*	1.2	0.0	0.0	0.0
2. R2	*	188.	*	3.3	*	0.0	1.0	0.2	0.0
3. R3	*	352.	*	3.5	*	1.2	0.0	0.2	0.0
4. R4	*	8.	*	3.3	*	1.2	0.0	0.0	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: J Street/3rd Street/I-5 NB Off-Ramp
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	576	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	881	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1457	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1529	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.7	*	0.3	0.0	1.3	0.0
2. R2	*	262.	*	3.8	*	0.3	0.0	0.0	1.3
3. R3	*	278.	*	3.9	*	0.0	0.4	0.0	1.3
4. R4	*	82.	*	3.9	*	0.0	0.4	1.3	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: N. B Street/7th Street
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1055	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1708	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	776	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	245	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.7	*	0.0	1.4	0.0	0.1
2. R2	*	188.	*	4.0	*	0.0	1.4	0.4	0.0
3. R3	*	352.	*	3.6	*	1.0	0.0	0.4	0.0
4. R4	*	82.	*	3.8	*	0.0	0.8	0.8	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Boulevard/5th Street
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	845	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	611	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1462	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1160	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.9	*	0.4	0.0	1.3	0.0
2. R2	*	262.	*	3.7	*	0.4	0.0	0.0	1.1
3. R3	*	352.	*	3.7	*	0.8	0.0	0.7	0.0
4. R4	*	82.	*	3.8	*	0.0	0.3	1.3	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Boulevard/7th Street
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1708	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	633	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	0	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1749	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.6	*	0.0	0.7	0.0	0.8
2. R2	*	262.	*	4.4	*	0.8	0.0	0.0	1.5
3. R3	*	278.	*	3.9	*	0.0	0.3	0.0	1.5
4. R4	*	8.	*	4.4	*	1.4	0.0	0.0	0.8

♀

Railyards Blvd & HSB Entry & Stanford St.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Boulevard/HSB Entry / Stanford
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	40	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	0	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1190	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1190	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.3	*	0.0	0.0	1.1	0.0
2. R2	*	262.	*	3.3	*	0.0	0.0	0.0	1.1
3. R3	*	278.	*	3.3	*	0.0	0.0	0.0	1.1
4. R4	*	82.	*	3.3	*	0.0	0.0	1.1	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Boulevard/Jibboom Street
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	932	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1537	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	903	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	0	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.5	*	0.0	1.3	0.0	0.0
2. R2	*	188.	*	3.9	*	0.0	1.3	0.5	0.0
3. R3	*	352.	*	3.5	*	0.9	0.0	0.5	0.0
4. R4	*	82.	*	3.8	*	0.0	0.8	0.9	0.0

♀

Railyards Boulevard & Bercut Dr.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Boulevard/Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	420	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	87	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	581	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	516	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.0	0.2	0.0	0.6	0.0
2. R2	262.	2.9	0.2	0.0	0.0	0.6
3. R3	352.	2.9	0.5	0.0	0.3	0.0
4. R4	8.	2.9	0.5	0.0	0.0	0.3

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Boulevard/Bercut Drive
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	353	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1293	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2121	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	3491	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	4.9	*	0.0	1.2	0.0	1.6
2. R2	*	260.	*	4.8	*	0.2	0.0	0.0	2.5
3. R3	*	280.	*	5.3	*	0.0	0.6	0.0	2.5
4. R4	*	280.	*	4.6	*	0.0	0.0	0.0	2.5

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Boulevard/I-5 SB Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	893	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	787	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2157	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1359	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	4.3	*	0.5	0.0	1.7	0.0
2. R2	*	188.	*	4.0	*	0.0	0.8	1.0	0.0
3. R3	*	352.	*	4.0	*	0.9	0.0	1.0	0.0
4. R4	*	82.	*	4.2	*	0.0	0.4	1.7	0.0

♀

South Park St & Bercut Dr.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: South Park Street/Bercut Drive
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	979	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	663	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	478	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	0	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.2	*	0.5	0.0	0.5	0.0
2. R2	*	188.	*	3.1	*	0.0	0.7	0.3	0.0
3. R3	*	352.	*	3.3	*	1.0	0.0	0.3	0.0
4. R4	*	8.	*	3.1	*	1.0	0.0	0.0	0.0

♀

MLS Stadium CALINE-4 Output

J St & 3rd St & I-5 Off-Ramps.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: J St / 3rd St / I-5 Off-Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	383	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	370	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	1868	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	1739	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.9	0.2	0.0	1.5	0.0
2. R2	262.	3.8	0.2	0.0	0.0	1.5
3. R3	278.	3.8	0.0	0.2	0.0	1.5
4. R4	82.	3.9	0.0	0.2	1.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 5th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	0	0	0	222	AG	26	12.5	0.0	10.0
B. South Leg	0	0	0	-222	AG	11	12.5	0.0	10.0
C. East Leg	0	0	222	0	AG	2178	12.5	0.0	10.0
D. West Leg	0	0	-222	0	AG	2185	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R1	-15	15	1.8
2. R2	15	15	1.8
3. R3	15	-15	1.8
4. R4	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D
1. R1	98.	3.8	0.0	0.0	1.7	0.0
2. R2	262.	3.8	0.0	0.0	0.0	1.7
3. R3	278.	3.8	0.0	0.0	0.0	1.7
4. R4	82.	3.8	0.0	0.0	1.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 6th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	0	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	404	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	990	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	718	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.1	*	0.0	0.0	1.0	0.0
2. R2	*	188.	*	3.1	*	0.0	0.5	0.5	0.0
3. R3	*	278.	*	3.1	*	0.0	0.2	0.0	0.7
4. R4	*	82.	*	3.3	*	0.0	0.2	1.0	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	867	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	687	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	710	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	990	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.4	*	0.0	0.7	0.0	0.5
2. R2	*	262.	*	3.5	*	0.4	0.0	0.0	1.0
3. R3	*	278.	*	3.5	*	0.0	0.4	0.0	1.0
4. R4	*	8.	*	3.5	*	0.9	0.0	0.0	0.5

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd / N 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	892	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	875	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2247	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2202	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	4.3	*	0.5	0.0	1.7	0.0
2. R2	*	262.	*	4.3	*	0.5	0.0	0.0	1.7
3. R3	*	278.	*	4.3	*	0.0	0.4	0.0	1.7
4. R4	*	82.	*	4.3	*	0.0	0.4	1.7	0.0

♀

Cumulative CALINE-4 Output

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: C St / 3rd St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	113	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1287	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2915	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1749	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	100.	*	3.1	*	0.0	0.0	0.9	0.0
2. R2	*	188.	*	3.2	*	0.0	0.5	0.6	0.0
3. R3	*	278.	*	3.1	*	0.0	0.3	0.0	0.6
4. R4	*	80.	*	3.3	*	0.0	0.3	0.9	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: C St / 5th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	911	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1793	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1749	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1051	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.0	*	0.0	0.6	0.0	0.2
2. R2	*	188.	*	3.2	*	0.0	0.6	0.4	0.0
3. R3	*	278.	*	3.0	*	0.0	0.4	0.0	0.4
4. R4	*	82.	*	3.1	*	0.0	0.4	0.6	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Camille Ln / 6th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	975	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1225	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	0	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	894	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	2.8	*	0.0	0.5	0.0	0.2
2. R2	*	262.	*	2.7	*	0.2	0.0	0.0	0.4
3. R3	*	278.	*	2.8	*	0.0	0.3	0.0	0.4
4. R4	*	8.	*	2.8	*	0.4	0.0	0.0	0.2

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Camille Ln / Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	772	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	583	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	970	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	395	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	2.7	*	0.2	0.0	0.4	0.0
2. R2	*	188.	*	2.6	*	0.0	0.3	0.2	0.0
3. R3	*	352.	*	2.7	*	0.3	0.0	0.2	0.0
4. R4	*	82.	*	2.7	*	0.0	0.1	0.4	0.0

♀

Camille Ln & Huntington St.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Camille Ln / Huntington St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	490	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	0	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1148	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	846	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	2.7	*	0.1	0.0	0.5	0.0
2. R2	*	262.	*	2.6	*	0.1	0.0	0.0	0.4
3. R3	*	352.	*	2.6	*	0.2	0.0	0.3	0.0
4. R4	*	82.	*	2.6	*	0.0	0.0	0.5	0.0

♀

Camille Ln & Stanford St.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Camille Ln / Stanford St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	347	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	278	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1125	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	994	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	2.7	*	0.1	0.0	0.5	0.0
2. R2	*	262.	*	2.6	*	0.1	0.0	0.0	0.4
3. R3	*	278.	*	2.6	*	0.0	0.1	0.0	0.4
4. R4	*	82.	*	2.7	*	0.0	0.1	0.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: F St / 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	2392	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1345	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1242	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	83	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.1	*	0.5	0.0	0.5	0.0
2. R2	*	188.	*	2.9	*	0.0	0.5	0.3	0.0
3. R3	*	351.	*	3.2	*	0.8	0.0	0.3	0.0
4. R4	*	82.	*	2.9	*	0.0	0.3	0.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: I St / 6th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1483	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1387	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2134	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2690	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.2	*	0.0	0.5	0.0	0.5
2. R2	*	260.	*	3.3	*	0.3	0.0	0.0	0.8
3. R3	*	280.	*	3.3	*	0.0	0.3	0.0	0.8
4. R4	*	8.	*	3.2	*	0.6	0.0	0.0	0.5

♀

J St & 3rd St & I-5 NB Off-Ramp.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: J St / 3rd St / I 5 NB Off-Ramp
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	617	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1099	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1954	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2154	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.0	*	0.0	0.5	0.0	0.4
2. R2	*	262.	*	3.0	*	0.1	0.0	0.0	0.7
3. R3	*	278.	*	3.1	*	0.0	0.2	0.0	0.7
4. R4	*	82.	*	3.1	*	0.0	0.2	0.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: N B St / N 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1486	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1945	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2206	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1101	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.2	*	0.3	0.0	0.7	0.0
2. R2	*	188.	*	3.3	*	0.0	0.7	0.4	0.0
3. R3	*	352.	*	3.2	*	0.6	0.0	0.4	0.0
4. R4	*	82.	*	3.3	*	0.0	0.4	0.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 5th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1342	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	920	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1948	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2080	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.1	*	0.3	0.0	0.7	0.0
2. R2	*	262.	*	3.1	*	0.3	0.0	0.0	0.7
3. R3	*	278.	*	3.1	*	0.0	0.2	0.0	0.7
4. R4	*	8.	*	3.1	*	0.5	0.0	0.0	0.4

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 6th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1121	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	975	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2148	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1954	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.1	*	0.2	0.0	0.7	0.0
2. R2	*	262.	*	3.1	*	0.2	0.0	0.0	0.7
3. R3	*	278.	*	3.0	*	0.0	0.2	0.0	0.7
4. R4	*	82.	*	3.1	*	0.0	0.2	0.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1586	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	2392	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1350	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2148	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	171.	*	3.4	*	0.0	0.8	0.0	0.4
2. R2	*	189.	*	3.2	*	0.0	0.8	0.3	0.0
3. R3	*	278.	*	3.3	*	0.0	0.5	0.0	0.7
4. R4	*	82.	*	3.2	*	0.0	0.5	0.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / 8th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	130	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	0	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1240	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1350	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	2.7	*	0.0	0.0	0.5	0.0
2. R2	*	262.	*	2.7	*	0.0	0.0	0.0	0.5
3. R3	*	278.	*	2.7	*	0.0	0.0	0.0	0.5
4. R4	*	82.	*	2.6	*	0.0	0.0	0.5	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	834	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	821	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2389	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	3608	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	260.	*	3.3	*	0.0	0.0	0.0	1.1
2. R2	*	260.	*	3.5	*	0.2	0.0	0.0	1.1
3. R3	*	280.	*	3.5	*	0.0	0.2	0.0	1.1
4. R4	*	280.	*	3.3	*	0.0	0.0	0.0	1.1

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / Huntington St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	564	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	539	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2205	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2320	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	3.0	*	0.1	0.0	0.7	0.0
2. R2	*	262.	*	3.0	*	0.1	0.0	0.0	0.8
3. R3	*	278.	*	3.0	*	0.0	0.1	0.0	0.8
4. R4	*	82.	*	3.0	*	0.0	0.1	0.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / Jibboom St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	916	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	0	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	3691	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2915	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	100.	*	3.5	*	0.2	0.0	1.2	0.0
2. R2	*	260.	*	3.3	*	0.2	0.0	0.0	0.9
3. R3	*	352.	*	3.3	*	0.4	0.0	0.7	0.0
4. R4	*	80.	*	3.3	*	0.0	0.0	1.2	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Railyards Blvd / Judah St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	58	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	0	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	1954	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1958	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	98.	*	2.8	*	0.0	0.0	0.7	0.0
2. R2	*	262.	*	2.8	*	0.0	0.0	0.0	0.7
3. R3	*	278.	*	2.8	*	0.0	0.0	0.0	0.7
4. R4	*	82.	*	2.8	*	0.0	0.0	0.7	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd / I-5 SB Ramps
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1061	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	937	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2628	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	1356	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	100.	*	3.2	*	0.2	0.0	0.8	0.0
2. R2	*	188.	*	3.1	*	0.0	0.4	0.5	0.0
3. R3	*	352.	*	3.1	*	0.4	0.0	0.5	0.0
4. R4	*	80.	*	3.2	*	0.0	0.2	0.8	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd / N 7th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	566	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1356	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2515	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2553	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.2	*	0.0	0.5	0.0	0.5
2. R2	*	188.	*	3.2	*	0.0	0.5	0.5	0.0
3. R3	*	280.	*	3.2	*	0.0	0.3	0.0	0.8
4. R4	*	80.	*	3.2	*	0.0	0.3	0.8	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Richards Blvd / Sequoia Pacific Blvd
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1357	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1407	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	2505	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	2717	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	100.	*	3.2	*	0.3	0.0	0.8	0.0
2. R2	*	260.	*	3.3	*	0.3	0.0	0.0	0.9
3. R3	*	280.	*	3.3	*	0.0	0.3	0.0	0.9
4. R4	*	80.	*	3.2	*	0.0	0.3	0.8	0.0

♀

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: South Park St / 5th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1297	12.5	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1333	12.5	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	364	12.5	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	798	12.5	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	3.8	*	0.0	1.2	0.0	0.4
2. R2	*	262.	*	3.6	*	0.6	0.0	0.0	0.8
3. R3	*	278.	*	3.6	*	0.0	0.7	0.0	0.8
4. R4	*	8.	*	3.7	*	1.2	0.0	0.0	0.4

♀

South Park St & 6th St.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: South Park St / 6th St
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	942	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1084	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	669	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	325	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	2.7	*	0.0	0.4	0.0	0.1
2. R2	*	188.	*	2.7	*	0.0	0.4	0.2	0.0
3. R3	*	352.	*	2.7	*	0.4	0.0	0.2	0.0
4. R4	*	82.	*	2.7	*	0.0	0.2	0.3	0.0

♀

South Park St & Bercut Dr.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: South Park St / Bercut Dr
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	0.5 M/S	Z0=	400. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	2.1 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. North Leg	*	0	0	0	222	* AG	1097	5.4	0.0	10.0
B. South Leg	*	0	0	0	-222	* AG	1189	5.4	0.0	10.0
C. East Leg	*	0	0	222	0	* AG	518	5.4	0.0	10.0
D. West Leg	*	0	0	-222	0	* AG	0	5.4	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	-15	15	1.8
2. R2	*	15	15	1.8
3. R3	*	15	-15	1.8
4. R4	*	-15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D
1. R1	*	172.	*	2.6	*	0.0	0.5	0.0	0.0
2. R2	*	188.	*	2.7	*	0.0	0.5	0.1	0.0
3. R3	*	352.	*	2.7	*	0.5	0.0	0.1	0.0
4. R4	*	82.	*	2.6	*	0.0	0.3	0.2	0.0

♀

3. AEDT Output

EC130

Helipad at Ground Level

Operation Group	Mode	Fuel (ST)	Distance (r	Duration	CO (ST)	HC (ST)	TOG (ST)	VOC (ST)	NMHC (ST)	NOx (ST)	PMNV (ST)	PMSO (ST)	PMFO (ST)	CO2 (ST)	H2O (ST)	SOx (ST)	PM 2·5 (ST	PM 10 (ST)	
KAISER_HELI_AQ_AirOps	Startup	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	ClimbTaxi	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	ClimbGrou	1.0634	0	01:00.0	0.00175	0.00014	0.00016	0.00016	0.00016	0.01235	0	0	0	3.35503	1.31543	0.00137	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	10.70489	5917.78	10:11.3	0.01709	0.0014	0.00162	0.00161	0.00162	0.12483	0	0	0	33.77394	13.24195	0.01383	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	10.70489	5917.78	10:11.3	0.01709	0.0014	0.00162	0.00161	0.00162	0.12483	0	0	0	33.77394	13.24195	0.01383	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	10.70489	5917.78	10:11.3	0.01709	0.0014	0.00162	0.00161	0.00162	0.12483	0	0	0	33.77394	13.24195	0.01383	0	0	0
KAISER_HELI_AQ_AirOps	Above100(	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	11.36066	5908.02	10:48.8	0.01817	0.00149	0.00172	0.00171	0.00172	0.13241	0	0	0	35.84287	14.05313	0.01468	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	11.36066	5908.02	10:48.8	0.01817	0.00149	0.00172	0.00171	0.00172	0.13241	0	0	0	35.84287	14.05313	0.01468	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	11.36066	5908.02	10:48.8	0.01817	0.00149	0.00172	0.00171	0.00172	0.13241	0	0	0	35.84287	14.05313	0.01468	0	0	0
KAISER_HELI_AQ_AirOps	DescendGr	1.08112	0	01:01.5	0.00178	0.00014	0.00016	0.00016	0.00016	0.01256	0	0	0	3.41094	1.33735	0.0014	0	0	0
KAISER_HELI_AQ_AirOps	DescendTa	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	FullFlight	22.06555	11825.81	21:00.8	0.03527	0.00289	0.00334	0.00332	0.00334	0.25724	0	0	0	69.61681	27.29509	0.02851	0	0	0
Aircraft Total (ST/yr)		22.06555	11825.8	0.014584	0.03526	0.00289	0.00334	0.00332	0.00334	0.25724	0	0	0	69.61681	27.29508	0.02851	0	0	0
Aircraft Total (lb/day)		**120.9071**	**64798.9**	**0.079913**	**0.193205**	**0.015836**	**0.018301**	**0.018192**	**0.018301**	**1.409534**	**0**	**0**	**0**	**381.462**	**149.5621**	**0.156219**	**0**	**0**	

Helipad at 190 ft (same as on Ground Level)

Operation Group	Mode	Fuel (ST)	Distance (r	Duration	CO (ST)	HC (ST)	TOG (ST)	VOC (ST)	NMHC (ST)	NOx (ST)	PMNV (ST)	PMSO (ST)	PMFO (ST)	CO2 (ST)	H2O (ST)	SOx (ST)	PM 2·5 (ST	PM 10 (ST)	
KAISER_HELI_AQ_AirOps	Startup	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	ClimbTaxi	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	ClimbGrou	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	1.45331	129.82	01:27.6	0.00238	0.00019	0.00022	0.00022	0.00022	0.01686	0	0	0	4.5852	1.79775	0.00188	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	10.70489	5917.78	10:11.3	0.01709	0.0014	0.00162	0.00161	0.00162	0.12483	0	0	0	33.77394	13.24195	0.01383	0	0	0
KAISER_HELI_AQ_AirOps	ClimbBelov	10.70489	5917.78	10:11.3	0.01709	0.0014	0.00162	0.00161	0.00162	0.12483	0	0	0	33.77394	13.24195	0.01383	0	0	0
KAISER_HELI_AQ_AirOps	Above100(	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	11.36066	5908.02	10:48.8	0.01817	0.00149	0.00172	0.00171	0.00172	0.13241	0	0	0	35.84287	14.05313	0.01468	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	11.36066	5908.02	10:48.8	0.01817	0.00149	0.00172	0.00171	0.00172	0.13241	0	0	0	35.84287	14.05313	0.01468	0	0	0
KAISER_HELI_AQ_AirOps	DescendBe	1.94957	171.72	01:55.7	0.0032	0.00025	0.00029	0.00029	0.00029	0.0226	0	0	0	6.15088	2.41161	0.00252	0	0	0
KAISER_HELI_AQ_AirOps	DescendGr	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	DescendTa	0	0	00:00.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KAISER_HELI_AQ_AirOps	FullFlight	22.06555	11825.81	21:00.8	0.03527	0.00289	0.00334	0.00332	0.00334	0.25724	0	0	0	69.61681	27.29509	0.02851	0	0	0
Aircraft Total (ST/yr)		22.06555	11825.8	0.014584	0.03526	0.00289	0.00334	0.00332	0.00334	0.25724	0	0	0	69.61681	27.29508	0.02851	0	0	0
Aircraft Total (lb/day)																			

4. Generator and Boiler Emissions

Alternative	Type	Power Output Output, kW/MBH	Number of Generators	HP	MMBTU per Hour	Hour per day	LF	ROG [g/bhp-hr]/[lb/MMBtu][1]	NOx [g/bhp-hr]/[lb/MMBtu][1]	PM10 [g/bhp-hr]/[lb/MMBtu][1]	PM2.5 [g/bhp-hr]/[lb/MMBtu][1]	ROG [ppd]	NOx [ppd]	PM10 [ppd]	PM2.5 [ppd]	PM10 [tpy]	PM2.5 [tpy]
Outfall	Emergency Generator	500	1	373	--	2	70%	0.0600	0.2600	0.0080	0.0080	0.069	0.299	0.009	0.009	0.002	0.002
KP Medical Center	Emergency Generator	2000	2	2,983	--	2	70%	0.0600	0.2600	0.0080	0.0080	0.551	2.389	0.073	0.073	0.013	0.013
MLS Stadium	Emergency Generator	200	1	149	--	2	70%	0.0600	0.2600	0.0080	0.0080	0.028	0.119	0.004	0.004	0.001	0.001
KP Medical Center	Boiler	9000	4	--	36	24	70%	0.0980	0.0054	0.0075	0.0075	59.294	3.261	4.506	4.506	0.822	0.822

Notes:

1. Emission factors for the emergency generators and boilers were obtain from the Offroad2011 Model and the Natural Gas Boilers Emission Factors (AP-42, Table 1.4-1), respectively.

Appendix C.2

Operational Air Quality Mitigation Plan

ESA

Operational Air Quality Mitigation Plan
Prepared for the

Railyards Specific Plan Update Subsequent Environmental Impact Report

Prepared by:
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2600 Capitol Avenue, Suite 200
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May 2016

Appendix C2 – Operational Air Quality Mitigation Plan for the RSPU

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Introduction

The Sacramento Metropolitan Air Quality Management District (SMAQMD) has developed guidance to mitigate operational emissions for projects subject to the California Environmental Quality Act.[1] SMAQMD's guidance recommends that project applicants prepare an Air Quality Mitigation Plan (AQMP) for all projects that exceed SMAQMD's operational significance thresholds of 65 pounds per day for reactive organic gases (ROG) and/or 65 pounds per day for nitrogen oxides (NO_x).

If a project exceeds these thresholds, design features and/or mitigation measures must be identified to reduce on-road mobile source emissions by 15 percent if the project is within the current State Implementation Plan (SIP), or by 35 percent if not within the SIP. Since the Railyards is included within the SIP, the 15 percent reduction applies to this project. The emissions reduction measures used to demonstrate a 15 percent reducing, as described below, reflects the proposed design features found in the Railyards Specific Plan Update (RSPU). As demonstrated below, the RSPU would achieve the SMAQMD's 15 percent emission reduction requirement for mobile source emissions and would not need to implement any additional mitigation reduction measures.

SMAQMD Guidance

The following steps are used to determine if a project meets the 15 percent reduction goal. The first step involves estimating total unmitigated ROG and NOx emissions using CalEEMod default values. Since this project includes a traffic analysis, the second step involves estimating mitigated ROG and NOx emissions using CalEEMod but adjusted for the vehicle miles traveled (VMT) estimates included in the project traffic report. Then, the decrease in ROG and NO_x mobile source emissions between unmitigated and mitigated is calculated, and the difference is converted to NOx equivalents or NO_xe. NO_xe is the sum of NOx reductions plus one-third of ROG reductions. If the project meets the 15 percent NO_xe reduction goal, it is considered consistent with the SIP.

RSPU Emission Reductions

RSPU Unmitigated Emissions

Unmitigated RSPU ROG and NO_x emissions from mobile sources were estimated using the CalEEMod model (2013.2.2 version). Table C2-1 shows these emissions with and without a major league soccer match. With one exception, the unmitigated emissions have been estimated using CalEEMod default values. The only exception is that the daily trip generation rates are based on the trip rates included in the traffic study.

[1] Sacramento Metropolitan Air Quality Management District. Recommended Guidance for Land Use Emission Reductions, Version 3.2 (for Operational Emissions). Accessed April 14, 2015.

RSPU Mitigated Emissions

Table C2-1 also shows mitigated emissions with and without a major league soccer match. The mitigated emission estimates were also estimated using CalEEMod, except that trip lengths were adjusted so that the RSPU's VMT estimates match those in the project traffic analysis. This approach matches SMAQMD's Off-Model Measure (TS: Traffic Study (meta-measure)) included in SMAQMD's AQMP guidance.

TABLE C2-1
RSPU PERCENT REDUCTION OF MOBILE EMISSIONS OF NOXe
WITH AND WITHOUT MITIGATION[1]

Alternative	Unmitigated Emissions (ppd)			Mitigated Emissions (ppd)			Percent Reduction	Exceed 15%?
	ROG	NOx	NOxe[2]	ROG	NOx	NOxe[2]		
RSPU (without MLS Match)	346	531	646.3	322	426	533.3	17%	Yes
RSPU (with MLS Match)	394	629	760.3	371	526	650.7	15%	Yes

1. Operational emissions estimates for summertime conditions were made using CalEEMod 2013.2.2. See Appendix C1 for details.

2. NOxe as defined by the SMAQMD is the reduction in ROG divided by 3 plus the reduction in NOx.

Source: ESA, 2016

The traffic study (meta-measure) recognizes that site-specific information is better than information generated from a statewide model. Consequently, it recommends that if a project has a traffic study, then that study should be used in lieu of the CalEEMod model defaults to estimate unmitigated emissions.[2] SMAQMD's guidance states that traffic studies typically include calculations of internal trip capture, the mix of land uses, distances to job centers, and transit, walking, and cycling information. In lieu of using CalEEMod's built in mitigation measures, SMAQMD recommends that the project traffic study should be used instead. To do this, CalEEMod's default values (typically trip generation rates and trip lengths) are adjusted so that its VMT estimates are consistent with the traffic study, and adding any mitigation not accounted for in the traffic study. The VMT estimates for the RSPU were modeled using the Sacramento Area Council of Government's (SACOG) SACMET travel demand model.[3] SACMET accounts for several factors that reduce project VMT. These include:

[2] Sacramento Metropolitan Air Quality Management District. *Operational Emissions Mitigation.* http://www.airquality.org/ceqa/mitigation.shtml. Accessed April 14, 2016.
[3] Fehr & Peers, 2016. Railyards Specific Plan SEIR Traffic Study. March, 2016.

- job accessibility (within a 30 minute drive or transit travel time),
- proximity to transit (distance to nearest light rail or bus station, in miles),
- availability of Class 1 and 2 bike lanes within and adjacent to the project,
- parameters that effect walking, including sidewalks and pedestrian paths and distances to transit, commercial, and related destinations,
- job and housing density (dwelling units and jobs per acre), and
- jobs and housing mix.

The CalEEMod default estimate of total vehicle miles traveled (VMT) was revised to be consistent with the project-specific VMT estimates. Within CalEEMod, VMT estimates for each land use type are the product of trip generation rates times trip lengths. CalEEMod's default trip lengths were adjusted so that its VMT matched the project specific estimates.

AQMP Effectiveness

After modeling the unmitigated project emissions, SMAQMD recommends applying all feasible project mitigation and recalculating the daily summer emissions as NO_xe. The effectiveness of the mitigation plan is then calculated as a percentage reduction from the unmitigated project, defined as follows:

$$\text{AQMP Effectiveness} = ((\text{Unmitigated Project } NO_x\text{e} - \text{Mitigated Project } NO_x\text{e})/ \text{Unmitigated Project } NO_x\text{e}) \times 100$$

Using the SMAQMD Recommended Guidance for Land Use Emission Reduction,[4] the percent reduction of mobile emissions of NO_xe after mitigation for the RSPU (with and without a major league soccer match) is presented in Table C2-1. The average daily trip lengths for each prosed land use were adjusted in the each mitigated CalEEMod run until the annual VMT matched those provided by Fehr & Peers for the RSPU (with and without a major league soccer match).[5]

As shown in Table C2-1, the RSPU (with and without a major league soccer match) would result in a 17 and 15 percent reduction in NO_xe emissions after mitigation, respectively. The RSPU would achieve a 15 percent emission reduction/mitigation guideline established by the SMAQMD and would be consistent with the SIP.

RSPU Land Use Variant Emission Reductions

RSPU Land Use Variant Unmitigated Emissions

ROG and NO_x operational mobile source unmitigated emissions were estimated using the CalEEMod model (2013.2.2 version). Table C2-2 shows these emissions for the RSPU Land Use Variant. With one exception, unmitigated emissions have been estimated using CalEEMod

[4] SMAQMD, 2015. Recommended Guidance for Land Use Emission Reductions Version 3.2 (for Operations Emissions). April 1, 2015.
[5] Fehr & Peers, 2016. Railyards Traffic Impact Study. March 2016.

default values. The only exception is that the daily trip generation rates are based on the trip rates included in the traffic study.

RSPU Land Use Variant Mitigated Emissions

Table C2-2 also shows mitigated mobile source emissions for the RSPU Land Use Variant. The mitigated emission estimates were also estimated using CalEEMod, except that trip lengths were adjusted so that the RSPU Land Use Variant's VMT estimates match those in the project traffic analysis. This approach matches SMAQMD's Off-Model Measure (TS: Traffic Study (meta-measure)) included in SMAQMD's AQMP guidance.

TABLE C2-2
RSPU LAND USE VARIANT PERCENT REDUCTION OF MOBILE EMISSIONS OF NOXe AFTER MITIGATION[1]

Alternative	Unmitigated Emissions (ppd)			Mitigated Emissions (ppd)			Percent Reduction	Exceed 15%?
	ROG	NOx	NOxe[2]	ROG	NOx	NOxe[2]		
RSPU Land Use Variant	358	535	654.3	336	439	551.0	16%	Yes

1. Operational emissions estimates for summertime conditions were made using CalEEMod 2013.2.2. See Appendix C1 for details.

2. NOxe as defined by the SMAQMD is the reduction in ROG divided by 3 plus the reduction in NOx.

Source: ESA, 2016

Just like the RSPU, the VMT estimates for the RSPU Land Use Variant were modeled using the Sacramento Area Council of Government's (SACOG) SACMET travel demand model.[6] SACMET accounts for several factors that reduce project VMT. These include:

- job accessibility (within a 30 minute drive or transit travel time),
- proximity to transit (distance to nearest light rail or bus station, in miles),
- availability of Class 1 and 2 bike lanes within and adjacent to the project,
- parameters that effect walking, including sidewalks and pedestrian paths and distances to transit, commercial, and related destinations,
- job and housing density (dwelling units and jobs per acre), and
- jobs and housing mix.

The CalEEMod default estimate of total vehicle miles traveled (VMT) was revised to be consistent with the project-specific VMT estimates. Within CalEEMod, VMT estimates for each land use type are the product of trip generation rates times trip lengths. CalEEMod's default trip lengths were adjusted so that its VMT matched the project specific estimates.

[6] Fehr & Peers, 2016. Railyards Specific Plan SEIR Traffic Study. March, 2016.

AQMP Effectiveness

Using the SMAQMD Recommended Guidance for Land Use Emission Reduction,[7] the percent reduction of mobile emissions of NO_xe after mitigation for the RSPU Land Use Variant is presented in Table C2-2. The average daily trip lengths for each prosed land use were adjusted in the each mitigated CalEEMod run until the annual VMT matched those provided by Fehr & Peers for the RSPU Land Use Variant.[8]

As shown in Table C2-2, the RSPU Land Use Variant would result in a 16 percent reduction in NO_xe emissions after mitigation, respectively. The RSPU Land Use Variant would achieve 15 percent emission reduction/mitigation guideline established by the SMAQMD and would be consistent with the SIP.

[7] SMAQMD, 2015. Recommended Guidance for Land Use Emission Reductions Version 3.2 (for Operations Emissions). April 1, 2015.
[8] Fehr & Peers, 2016. Railyards Traffic Impact Study. March 2016.

Appendix C.3
Health Risk Assessment

ESA

HEALTH RISK ASSESSMENT

Prepared for the

Railyards Specific Plan Update Subsequent Environmental Impact Report

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May 2016

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SUMMARY

The Proposed Project includes the Railyards Specific Plan Update (RSP), the Railyards Specific Plan Update Land Use Variant (Variant), the Kaiser Permanente Medical Center (KPMC), the Major League Soccer Stadium (Stadium), and the Stormwater Outfall. The SEIR project description includes a listing of the objectives and land uses for each of these options. The project site is located in the area of downtown Sacramento north of I Street, east of the Sacramento River, south on North B Street, and west of N. 7th Street.

The purpose of this health risk assessment (HRA) is to determine the potential cancer risks, and chronic and acute health hazards, faced by the future residents of the proposed project and by residents and other sensitive receptors that live in the project area. This HRA focuses on diesel particulate matter (DPM) emissions resulting from diesel vehicle traffic on I-5 as it passes through downtown Sacramento. The HRA also evaluates DPM emissions from backup diesel generators to be located at the KPMC, the Stadium, and the Outfall. Finally, the HRA evaluates the health risks from natural gas fired boilers to be used by the KPMC. The analysis considers a 30-year exposure scenario consistent with guidance from the California Office of Environmental Health Hazard Assessment (OEHHA, 2015a). A 30-year exposure period is conservative (i.e., health protective) and assumes residents would be exposed continuously to diesel particulate matter (DPM) emissions for 30 years, which is the maximum amount of time that individuals typically reside in the same place.

This HRA finds that the project's residents, residents living near the Project, and other sensitive receptors in the area would not be exposed to a cancer risk exceeding SMAQMD's significance threshold of 10 in 1 million cancer risk threshold under a 30-year exposure scenario. Also, sensitive receptors would not be exposed to concentrations of toxic air contaminants that would exceed SMAQMD's noncancer chronic and acute health hazard index of 1.0. It is important to note that emissions will improve over time due to more stringent state and federal standards for air pollutants and from turnover in the fleet as older, higher emitting vehicles are replaced by lower-emitting vehicles.

INTRODUCTION

Purpose

This HRA estimates the toxic air contaminant (TAC) emissions associated with stationary sources (diesel generators and natural gas fired boilers) and diesel traffic traveling on Interstate 5 (I-5) through the RSPU site and the health effects of those emissions on existing and future residents and other sensitive receptors.

Project Description

The proposed project and alternatives are located within the RSPU area of the City of Sacramento, California. The detailed project description is included as part of the Supplemental Environmental Impact Report (SEIR).

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Examples include certain aromatic and chlorinated hydrocarbons, diesel particulate matter (DPM), certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as trucks and automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC.

California's air toxics control program began in 1983 with the passage of the Toxic Air Contaminant Identification and Control Act, Assembly Bill (AB) 1807, better known as the Tanner Bill. The Tanner Bill established a regulatory process for the scientific and public review of individual toxic compounds. When a compound becomes listed as a TAC under the Tanner process, the California Air Resources Board (CARB) normally establishes minimum statewide emission-control measures to be adopted by air quality management districts and air pollution control districts. By 1992, 18 of the 189 federal hazardous air pollutants had been listed by the CARB as state TACs. In April 1993, the CARB added 171 substances to the state program to make the state TAC list equivalent to the federal list of hazardous air pollutants. In 1998, CARB designated diesel engine exhaust particulate matter (DPM) as a TAC (CARB 1998). The exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens.

The second major component of California's air toxics program, supplementing the Tanner process, was provided by the passage of AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. AB 2588 currently regulates over 600 compounds, including all of the Tanner-designated TACs.

Additionally, Proposition 65, passed by California voters in 1986, required that a list of carcinogenic and reproductive toxicants found in the environment be compiled, the discharge of these toxicants into drinking water be prohibited, and warnings of public exposure by air, land, or water be posted if a significant adverse public health risk is posed. The emission of any of the listed substances by a facility would require a public warning unless health risks could be demonstrated to be less than significant. For carcinogens, Proposition 65 defines the "no significant risk level" as the level of exposure that would result in an increased cancer risk of greater than 10 in 1 million over a 70-year lifetime. The "no significant risk level" is 1/1000 of the No Observable Effect Level for reproductive toxicants.

This HRA focuses on health impacts associated with DPM from diesel trucks traveling along the portion of I-5 through the project site, from DPM emitted by several backup generators, and from TACs released during natural gas combustion in boilers. DPM is the risk-driving substance emitted from vehicles and diesel-powered stationary sources, and it has been identified by the state of California as a carcinogenic compound as indicated earlier.

Cancer Risk

Cancer risk is defined as the increase in lifetime probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased probability in 1 million. The cancer risk from inhalation of a TAC is estimated by calculating the inhalation (and if applicable, ingestion) dose in units of milligrams/kilogram body weight per day based on a ambient concentration in units of micrograms per cubic meter ($\mu g/m^3$), breathing rate, and exposure period, and multiplying the dose by the inhalation cancer potency factor, expressed as $(milligrams/kilogram\ body\ weight\ per\ day)^{-1}$. Cancer risks for residential receptors and similar sensitive receptors are typically estimated based on a lifetime (30 years) of continuous exposure, although other time periods (e.g., 9 years, 30 years) may be evaluated in accordance with OEHHA or air district guidance.

Cancer risks are typically calculated for all carcinogenic TACs and summed to calculate the overall increase in cancer risk to an individual. The calculation procedure assumes that cancer risk is proportional to concentrations at any level of exposure and that risks due to different carcinogens are additive. This approach is generally considered a conservative assumption at low doses and is consistent with the current OEHHA regulatory approach. Exposure to carcinogenic TACs does not imply that the exposed individual would contract cancer; rather, the cancer risk is a probability of developing cancer if other factors (e.g., heredity, exposure to environmental or workplace exposures that comprise the immune system, overall health) would result in an increased susceptibility to developing cancer. The California Almanac of Emissions and Air

Quality lists the Sacramento Valley Air Basin regional background average cancer risk for diesel particulate matter as 360 in 1 million (CARB, 2009).

Noncancer Health Effects

In addition to their carcinogenic effects, exposure to some TACs also includes noncancer health effects. Other TACs may not be carcinogenic, but exposure to them results in noncancer health effects. Noncancer health effects are classified as acute (short-term) and chronic (long-term). Acute health effects occur over brief periods and can include eye irritation, respiratory irritation, throat pain, and headaches, among others. Typically, in health risk assessments, acute health effects are evaluated over exposure periods of 1 or 8 hours, depending on the specific TACs. Chronic health effects resulting from an exposure to a TAC can occur over exposure periods from several months to several years and can include birth defects, neurological damage, or genetic damage, among others. Typically, in health risk assessments, chronic health effects are evaluated over an exposure period of one year. Noncancer health effects are evaluated by the target organ or organ system they affect. The target organ or organ systems can include the respiratory system, hematopoietic system, alimentary system, endocrine system, reproductive system, kidney, nervous system, cardiovascular system, and skin.

Acute and chronic noncancer health effects are assessed relative to a Reference Exposure Level (REL). The REL is the concentration (inhalation) or daily dosage (noninhalation) at or below which no adverse health effects are anticipated. The most recent RELs, established by OEHHA and/or CARB, are found in the Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values (OEHHA, 2015b).

Land Use and Air Quality

CARB Guidance

CARB's Air Quality and Land Use Handbook: A Community Health Perspective ([CARB Handbook] CARB 2005) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, near air emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities. The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within the Los Angeles (Interstate (I) 405 and I-710), San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses no closer than 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "[a]void siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day" (CARB 2005).

Importantly, the CARB Handbook Introduction clarifies that these guidelines as strictly advisory

recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board is advisory and these recommendations do not establish regulatory standards of any kind." Also, CARB recognizes that there may be land use objectives that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues" (CARB 2005).

The CARB Handbook provides evidence that truck traffic generating diesel particulates poses a health risk to sensitive receptors, particularly children. Studies cited in the CARB Handbook identify a health risk within 500 feet of a freeway. As stated above, these studies are based on emissions generated by traffic on major interstate commerce freeways. The study states, "[o]n a typical urban freeway (truck traffic of 10,000–20,000/day), diesel particulate matter (PM) represents 70% of the potential cancer risk from the vehicle traffic" (CARB 2005). Health impacts, however, may vary depending on vehicle traffic on a local roadway, target year for the analysis, meteorological conditions, and other factors for a specific project.

SMAQMD Guidance

The SMAQMD has developed risk assessment guidance that is summarized in Chapter 5 of their CEQA Handbook (SMAQMD, 2014). That assessment requires the use of a health risk assessment for projects that may expose sensitive receptors to significant amounts of toxic air contaminants (TACs). The SMAQMD guidance has established guidance showing that significant health risks occur if emissions would result in risks exceeding 10 per million cancer risk or 1.0 hazard index for stationary sources.

SMAQMD has also developed guidance for evaluating the health risks from locating residences near high volume freeways (SMAQMD, 2011). That guidance includes both a screening methodology and, if the project fails the screening, a more detailed modeling analysis of health risks. The Project fails the SMAQMD screening analysis because of the high volume of traffic on I-5 and because the Project would locate sensitive receptors in close proximity to I-5.

CALCULATION OF TAC EMISSIONS

The calculation of TAC emissions used three sources: diesel backup generator emissions, gas-fired boiler emissions, and diesel traffic on I-5. Based on recommendations from SMAQMD, DPM from trains was not included in the analysis.

Diesel Backup Generator Emissions

Table HRA-1 shows diesel backup generator emissions. The number and size of the generators is based on information provided by KPMC for their hospital (Miller, M.F, 2016). A similarly sized generator was assumed for the MLS Stadium. A smaller 500 kW generator was assumed for the Outfall. The emission rates are based on Tier 4 emission rates for emergency generators as included in the California Air Resources Board's OFFROAD2011 model (CARB, 2011). The

PM10 grams per second values shown in the rightmost column were used as the inputs to the AERMOD model.

Table HRA-1. Diesel Backup Generator Emissions

Structure	Emergency Power, kW	Generator Output, kW	Number of Generators	HP	PM10 [g/bhp-hr]	Load Factor	PM g/hr	hours/ year	PM10 [grams/ year]	PM10 [grams/ second]
KMPC										
Hospital	6600	2,000	4	5,966	0.008	0.75	8.95	200	7,158.72	2.27E-04
HSB	1260				0.008	0.75	8.95			
CUP	120				0.008	0.75	8.95			
MOB 1	900	2,000	1	1,491	0.008	0.75	8.95			
MOB 2	900				0.008	0.75	8.95	200	1,789.68	5.68E-05
					Total		**44.74**		**total**	**2.84E-04**
Outfall										
Outfall	500	500	1	373	0.008	**0.75**	2.24	200	447.42	**1.42E-05**
					Total		**2.24**			
MLS Stadium										
Stadium	500	2,000	1	1,491	0.008	0.75	8.95	200	1,789.68	**5.68E-05**
					Total		**8.95**			

Hospital Boiler Emissions

Table HRA-2 shows emissions for the KPMC's natural gas-fired boilers. The number and size of the boilers is based on information provided by KPMC (Miller, M.F, 2016). The emission rates are based on U.S. EPA emission factors for natural gas boilers (U.S. EPA, 1998). The PM10 grams per second values shown in the right column were used as the inputs to the AERMOD model.

Table HRA-2. Natural Gas-Powered Boiler Emissions

Structure	Type of Boiler	Generator Output, MBH	Number of Boilers	MMBTU per Hour	BTUs/SCF	SCFs/hour	PM (lbs/MM SCF)	Load Factor	PM10 grams / second
Kaiser Permanente Medical Center									
Hospital	Space Heating	9,000	3	27	1,020.0	8,823.53	7.6	0.75	6.34E-03
HSB	Space Heating				1,020.0	8,823.53	7.6	0.75	6.34E-03
CUP	Space Heating				1,020.0	8,823.53	7.6	0.75	6.34E-03
MOB 1	Space Heating	9,000	1	9	1,020.0	8,823.53	7.6	0.75	6.34E-03
MOB 2	Space Heating								
									2.53E-02

Table HRA-3 shows the TAC emissions associated with natural gas combustion in boilers (U.S. EPA, 1998). The resulting annual and hourly concentrations were then used to estimate acute, chronic, and carcinogenic health risks.

Table HRA-3. Natural Gas Powered Boiler TAC Emissions and Concentrations

CAS Number	TAC	Emission Factor (lbs/MM scf)	Emission Rate (grams/second)	Annual Concentration (ug/m^3)	Hourly Concentration (ug/m^3)
71-43-2	Benzene	2.10E-03	1.0E-07	8.8E-07	1.81E-05
50-00-0	Formaldehyde	7.50E-02	3.6E-06	1.4E-06	6.46E-04
108-88-3	Toluene	3.40E-03	1.6E-07	1.4E-06	2.93E-05
7440-43-9	Cadmium	1.10E-03	5.2E-08	4.6E-07	9.48E-06
18540-29-9	Chromium	1.40E-03	6.7E-08	5.9E-07	1.21E-05
7440-50-8	Copper	8.50E-04	4.0E-08	3.6E-07	7.32E-06
7439-96-5	Manganese	3.80E-04	1.8E-08	1.6E-07	3.27E-06
7439-97-6	Mercury	2.60E-04	1.2E-08	1.1E-07	2.24E-06
7440-02-0	Nickel	2.10E-03	1.0E-07	8.8E-07	1.81E-05
7440-62-2	Vanadium	2.30E-03	1.1E-07	9.7E-07	1.98E-05

Notes: Emission factors based on U.S. Environmental Protection Agency Emission Factors (1998). The TACs with emission ratings of D or better were used in this analysis. TACs without acute, chronic, or cancer listings in the California Air Resources Board's Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values were not included in this analysis.

Emission rates assume 35 MMBtu per hour for all boilers combined, 1,020 Btus per standard cubic foot of natural gas, and 75 percent boiler load factor. These assumptions result in 9.53 standard cubic feet of natural gas consumed per second.

Dispersion modeling assumed that all boilers would be co-located using an emission rate of 1 gram per second. The resulting highest hourly and annual concentrations using 1 grams per second equaled 181.05 ug/m^3 and 8.85 ug/m^3, respectively. Those concentrations were then converted to the hourly and annual concentrations shown in the above table using the actual emission rates of each TAC.

I-5 Vehicle Diesel Emissions

In addition to the stationary sources described above, SMAQMD's roadway protocol was used to evaluate the potential health risks from diesel vehicles traveling on I-5 (SMAQMD, 2011). Due to the high traffic volumes on I-5 and locations of future residences to be located near I-5, a detailed site-specific analysis was conducted using AERMOD.

I-5 traffic data for project buildout was used to analyze truck emissions. I-5 traffic volumes in 2014 were obtained from Caltrans (Caltrans, 2015). Total peak hour traffic on I-5 in 2014 between Richards Blvd. and I Street equals 15,500 vehicles. These volumes were increased by 0.5 percent per year through 2035, the year of project buildout. Using a 0.5 percent increase per year, total peak hour traffic would equal 17,040 vehicles on this same segment of I-5 in 2035. The 17,040 peak hour vehicles traveling on I-5 in 2035 were multiplied by the percentage of diesel vehicle travel in Sacramento in 2035 (4.5%). This percentage was estimated by dividing the daily diesel vehicle VMT in Sacramento County for 2035 by the total daily VMT of all vehicles in Sacramento County for 2035. This resulted in 765.5 diesel vehicles traveling on I-5 in 2035 during the peak hour.

The next step involved using EMFAC2014 to estimate the diesel particulate matter emission rates for diesel powered vehicles in Sacramento in 2035. This value, 0.00562 grams per mile, was estimated by weighting the 2035 PM10 exhaust emissions for each diesel vehicle class by the percentage VMT traveled for that class compared to VMT traveled for all Sacramento County diesel vehicles. The resulting average of 0.00562 grams DPM per mile was converted to DPM grams per second for the 0.92 mile segment of I-5 included in the traffic analysis. The resulting emission rate was 1.08E-3 grams DPM/second within the 0.92 segment of I-5. This value was entered into the AERMOD model for the I-5 linear volume sources.

MODELING METHODOLOGY

Dispersion Model

The U.S. Environmental Protection Agency (EPA) AERMOD model was used to model the air quality impacts of emissions from trucks traveling along I-5, from diesel generators, and from KPMC's natural gas boilers. AERMOD was used to estimate the TAC concentrations using the locations of each source, the stack parameters of each source, and five years of meteorological conditions provided by the SMAQMD.

The model was configured with the following control parameters:

- Modeling switches: Regulatory Defaults
- Urban Setting
- Averaging periods: 1-hour and Annual
- 7.5 minute topographical data for downtown Sacramento
- AERMOD-ready meteorological data for Sacramento Executive Airport for 2010-2014 (SMAQMD, 2016).

Source Characteristics

Diesel Backup Generator

The KPMC would have five 2,000 KW emergency generators with a combined emission rate of 2.8E-4 grams per second as shown previously in Table HRA-1. The MLS Stadium is assumed to have one 2,000 KW emergency generator, with an emission rate of 1.42E-5 grams DPM per second. The Outfall is assumed to have a 500kW generator with an emission rate of 5.68E-05 grams per second. The five KPMC generators were assumed to be collocated and were modeled using a gas exit temperature of 987 degrees Fahrenheit, a stack height of 20 feet, a stack inside diameter of 6 inches, and an exit velocity of 164 feet per second. These same stack parameters were used to model emissions for the MLS Stadium generator and for the Outfall generator.

Hospital Boilers

The KPMC would have four boilers with a combined emission rate of 2.53E-2 grams per second as shown previously in Table HRA-2. Boiler emissions were modeled at 1 gram per second. The resulting maximum concentration was adjusted to reflect emission rates of the individual TACs shown in Table HRA-3. The four KPMC boilers were assumed to be collocated and were modeled using a gas exit temperature of 300 degrees Fahrenheit, a stack height of 30 feet, a stack inside diameter of 6 inches, and an exit velocity of 45 feet per second.

I-5 Vehicle Diesel Emissions

Vehicle DPM emissions from vehicles traveling on I-5were modeled as a line volume source consisting of separated volume sources along a 0.92-mile long segment of I-5 from Richards Boulevard on the north end to I Street on the south end. A plume height of 2 meters and a plume width of 30 feet was used for the modeling analysis. A two-width volume source spacing option was based on U.S. Environmental Protection Agency modeling recommendations (U.S EPA, 1992). Since this portion of I-5 is elevated, emissions were modeled at an elevation of 30 feet. Emission rates for freeway diesel vehicles were modeled within AERMOD using a DPM emission rate of 0.00108 grams per second.

Receptor Grid

The extent of the receptor grid used in the AERMOD modeling analysis differed based on the project being modeled. For the evaluation of the Outfall and MLS Stadium as individual projects, the receptor grid was limited to existing residential locations outside of the Railyards but near these project locations. For the KPMC, the receptor grid included existing residential locations outside of the Railyards plus sensitive receptors associated with the KPMC hospital. For the RSPU, the receptor grid included offsite residences near the site boundary plus onsite locations of future residences, including residences located near I-5, mixed use locations that could include residences, and the KPMC hospital. For the RSPU Variant, the receptor grid included the offsite residences near the site boundary plus onsite locations of future residences, including residences located near I-5 and mixed use locations that could include residences.

EVALUATION OF HEALTH IMPACTS

Cancer Risk

Exposure and risk equations used to calculate the cancer risk at residential receptors were based on the OEHHA manual for health risk assessments prepared under the Air Toxics "Hot Spots" program (OEHHA 2015a).

Table HRA-4 shows the cancer risk inputs by age category. These are the cancer risk inputs as recommended by OEHHA (2015a).

Table HRA-4. Cancer Risk Inputs by Age Category

Age Category	Daily Breathing Rate	Inhalation Absorption Rate	Days/year	Years	Days in 30 Years	Child Risk Factor	Fraction of Time at Home
3rd Trimester to Birth	361	1	365	0.3	10,950	10	0.85
0 to 2	1090	1	365	2	10,950	10	0.85
2 to 16	745	1	365	14	10,950	3	0.72
16 to 30	290	1	365	54	10,950	1	0.73

The following equations use the values in Table HRA-4 to calculate cancer risks (OEHHA, 2015a):

$$Risk = Inhalation\ potency\ factor * Dose\ Inhalation \quad (1)$$

where:

Inhalation potency factor = 1.1 (mg/kg-day) for diesel particulate matter,

and:

$$Dose\ Inhalation = C_{air} * DBR * A * EF * ED * ASF * 10^{-6} / AT * FAH \quad (2)$$

where:

C_{air} = concentration of DPM in microgram per cubic meter ($\mu g/m^3$)
DBR = breathing rate in liter per kilogram of body weight per day; 361 for the third trimester; 1090 for ages 0 to 2, 745 for ages 2 to 16, and 290 for ages 16 to 30.
A = inhalation absorption factor (1 for DPM)
EF = exposure frequency in days per year
ED = exposure duration in years
ASF = age sensitivity factor for a specific age group (unitless); 10 for ages from 3rd trimester to age 2, 3 for ages 2 to 16, and 1 for ages 16 to 30.
*AT = averaging time period over which exposure is averaged in days (*10,950 *days over 30 years)*
FAH = fraction of time at home (unitless); 85% or 0.85 for ages from 3rd trimester to age 2, 72% or 0.72 for ages 2 through 16 and 73% or 0.73 for ages 16 through 30.

The risks associated with TACs use the equations listed above but inhalation potency factors differ by TAC. Emissions estimated in this health risk assessment represent 30-year cancer risks. Table HRA-5 lists the cancer risks from TACs emitted by natural gas combustion by the KPMC boilers. Five of the ten TACs listed have been shown to increase cancer risks from various routes of exposure. Cancer risks are based on the maximum residential concentration, which is a location approximately 100 meters southwest of the KPMC boilers. The maximum cancer risk attributable to the boilers is 0.25 per million.

Table HRA-5. Maximum Cancer Risk from Natural Gas Boilers

CAS Number	TAC	Annual Concentration (ug/m^3)	Cancer Risk
71-43-2	Benzene	8.8E-07	5.45E-11
50-00-0	Formaldehyde	1.4E-06	1.80E-11
108-88-3	Toluene	1.4E-06	N/A
7440-43-9	Cadmium	4.6E-07	4.30E-09
18540-29-9	Chromium	5.9E-07	2.10E-07
7440-50-8	Copper	3.6E-07	N/A
7439-96-5	Manganese	1.6E-07	N/A
7439-97-6	Mercury	1.1E-07	N/A
7440-02-0	Nickel	8.8E-07	5.00E-10
7440-62-2	Vanadium	9.7E-07	N/A
	Totals		2.15E-07
		Risk per million	0.25
		Threshold (per million)	10

RSPU

Table HRA-6 shows the worst case cancer health risks for the RSPU. At 5.0 per million, the total health risk is less than the threshold of 10 per million. Of this total, 96 percent of the risk is from exposure to DPM from diesel exhaust (generators and I-5), with the remaining five percent of the risk from natural gas fired boiler operation.

Table HRA-6. Maximum Cancer Risks for the Project Alternatives

	Annual DPM Concentration (ug/m3)	DPM Cancer Risk per Million	Natural Gas TAC Cancer Risk per Million	Total Cancer Risk per Million
RSPU	7.1E-3	4.8	0.22	5.0
RSPU Variant	6.5E-3	4.4	N/A	4.4
KPMC	4.4E-3	3.0	0.22	3.2
Stadium	7.5E-4	0.51	N/A	0.5
Outfall	7.7E-4	0.53	N/A	0.5

RSPU Variant

Table HRA-6 shows the worst-case cancer health risks for the RSPU Variant. At 4.4 per million, the total health risk is less than the threshold of 10 per million. This cancer risk is entirely from exposure to DPM from diesel generator operation and from I-5 DPM vehicle exhaust.

KPMC

Table HRA-6 shows the worst-case cancer risks health risks for the KPMC operation. At 3.2 per million, the total health risk is less than the threshold of 10 per million. Of this total, 94 percent of the risk is from exposure to DPM from diesel generators and traffic on I-5 and eight percent of the risk is from exposure to exhaust from the KPMC's natural gas fired boilers.

Soccer Stadium

Table HRA-6 shows the worst-case cancer risks health risks for the Stadium. At 0.5 per million, the total health risk is less than the threshold of 10 per million. This cancer risk results from DPM emitted by the Stadium diesel generator and from traffic on I-5.

Outfall

Table 6 shows the worst-case cancer risks health risks for the Outfall. At 0.5 per million, the total health risk is less than the threshold of 10 per million. This cancer risk results from DPM emitted by the Outfall diesel generator and diesel traffic on I-5.

Noncancer Health Effects

Table HRA-7 shows the non-cancer health risks from natural gas fired boilers that would operate at the KPMC. The project's chronic and acute health risks would result from several TACs associated with natural gas combustion. However, the emission rates of these TACs, and the resulting health risks, are extremely low. Both the chronic and acute hazard quotients would be substantially below the hazard index threshold of 1.0.

Table HRA-7. Maximum Non-Cancer Risks from Natural Gas Boilers

CAS Number	TAC	Annual Concentration (ug/m^3)	Chronic Hazard Quotient	Hourly Concentration (ug/m^3)	Acute Hazard Quotient
71-43-2	**Benzene**	8.8E-07	2.90E-07	1.81E-05	2.01E-06
50-00-0	**Formaldehyde**	1.4E-06	1.50E-07	6.46E-04	1.20E-05
108-88-3	**Toluene**	1.4E-06	1.41E-08	2.93E-05	2.34E-09
7440-43-9	**Cadmium**	4.6E-07	6.70E-05	9.48E-06	0.00E+00
18540-29-9	**Chromium**	5.9E-07	3.69E-06	1.21E-05	0.00E+00
7440-50-8	**Copper**	3.6E-07	N/A	7.32E-06	7.30E-08
7439-96-5	**Manganese**	1.6E-07	1.80E-06	3.27E-06	0.00E+00
7439-97-6	**Mercury**	1.1E-07	4.00E-05	2.24E-06	7.40E-06
7440-02-0	**Nickel**	8.8E-07	1.28E-04	1.81E-05	9.00E-05
7440-62-2	**Vanadium**	9.7E-07	N/A	1.98E-05	1.34E-06
	Totals		2.41E-04		1.13E-04
			Threshold (per million) 1.0		1.0

Table HRA-8 shows the maximum non-cancer risks for each land use scenario. This includes the PM chronic risks (DPM does not pose acute health risks) plus the chronic risks from natural gas. As shown, none of the land use scenarios would result in total chronic hazards that exceed 1.0.

–

Table HRA-8. Maximum Non-Cancer Risks

	Annual DPM Concentration (ug/m3)	DPM Chronic Hazard Quotient	Natural Gas Chronic HI	Total Chronic Hazard Quotient
RSPU	7.1E-3	1.4E-3	2.41E-4	1.6E-3
RSPU Variant	6.5E-3	1.3E-3	N/A	1.3E-3
KPMC	4.4E-3	8.8E-4	2.41E-4	1.1E-3
Stadium	7.5E-4	1.5E-4	N/A	1.5E-4
Outfall	7.7E-4	1.5E-4	N/A	1.5E-4

CONCLUSIONS

Based on this analysis, residents and other sensitive land uses would not be exposed to a cancer risk exceeding 10 in a million, or a chronic or acute health risk exceeding 1.0. These results reflect reasonable estimates of source emissions and exhaust characteristics, and available meteorological data near the project site. Given the limits associated with health risk assessments (e.g., assumptions regarding emission sources, air quality dispersion model options, health effects calculations), the actual impacts may vary from the estimates in this assessment. However, the combined use of the AERMOD dispersion model and the health impact calculations required by the OEHHA produce conservative (i.e., health-protective) results. Accordingly, the health impacts are not expected to be higher than those estimated in this assessment.

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Appendix A. AERMOD Results

```
RSPU
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                  ***        04/07/16
                                  ***
***        13:12:53

PAGE   1
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                            ***     MODEL SETUP OPTIONS
SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    85 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   1500000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
```

```
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Assumes No FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:     85 Source(s);      10 Source Group(s); and
119 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     1.83 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Detailed Error/Message File:   RSPU.err
```

```
**File for Summary of Results:   RSPU.sum
```

**MODELOPTs: RegDFAULT CONC ELEV

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1=YES; 0=NO)

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           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES *** (METERS/SEC)

```
                                                    1.54,   3.09,   5.14,
8.23,  10.80,
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 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:12:53

PAGE   3
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                    *** UP TO THE FIRST 24 HOURS OF
METEOROLOGICAL DATA ***

   Surface file:   Exec 10-14 N1MD.SFC
Met Version:  14134
   Profile file:   Exec 10-14 N1MD.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:    23232                  Upper air station no.:
23230
                  Name: SACRAMENTO/EXECUTIVE_ARPT                   Name:
OAKLAND/WSO_AP
                  Year:   2010                                      Year:
2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0
BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -9.2  0.095 -9.000 -9.000 -999.   70.      8.5  0.07
0.94   1.00    2.36  131.   10.1  282.5    2.0
 10 01 01   1 02   -8.6  0.091 -9.000 -9.000 -999.   66.      8.0  0.06
0.94   1.00    2.36  118.   10.1  283.1    2.0
 10 01 01   1 03   -4.8  0.068 -9.000 -9.000 -999.   42.      6.0  0.06
0.94   1.00    1.76  114.   10.1  283.1    2.0
 10 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.5    2.0
 10 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 08  -16.5  0.289 -9.000 -9.000 -999.  372.    133.8  0.07
0.94   0.76    3.86  143.   10.1  283.1    2.0
 10 01 01   1 09    0.7  0.140  0.048  0.009    6.  142.   -387.3  0.06
0.94   0.40    1.76  177.   10.1  283.1    2.0
 10 01 01   1 10   22.2  0.222  0.412  0.006  115.  251.    -45.3  0.09
0.94   0.28    2.36  191.   10.1  284.2    2.0
 10 01 01   1 11   16.2  0.240  0.412  0.006  158.  282.    -78.1  0.06
0.94   0.23    2.86  164.   10.1  285.4    2.0
 10 01 01   1 12   20.9  0.239  0.486  0.006  200.  281.    -60.0  0.13
0.94   0.22    2.36  999.   10.1  285.4    2.0
 10 01 01   1 13   21.6 -9.000 -9.000 -9.000  234. -999. -99999.0  0.13
0.94   0.22    0.00    0.   10.1  285.4    2.0
 10 01 01   1 14   18.3  0.247  0.507  0.006  260.  295.    -75.7  0.07
0.94   0.23    2.86  129.   10.1  285.9    2.0
 10 01 01   1 15   11.0  0.242  0.436  0.006  274.  286.   -117.9  0.07
0.94   0.26    2.86  122.   10.1  286.4    2.0
 10 01 01   1 16    0.4  0.231  0.147  0.006  275.  266.  -2647.7  0.07
0.94   0.35    2.86  134.   10.1  286.4    2.0
 10 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   0.61    0.00    0.   10.1  286.4    2.0
 10 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  285.4    2.0
 10 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0
 10 01 01   1 20   -5.9  0.105 -9.000 -9.000 -999.   82.     17.8  0.21
0.94   1.00    1.76  247.   10.1  284.9    2.0
 10 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.9    2.0
 10 01 01   1 22   -3.8  0.069 -9.000 -9.000 -999.   43.      7.9  0.06
0.94   1.00    1.76  162.   10.1  284.2    2.0
 10 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.1 1  131.    2.36   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	1ST HIGHEST VALUE IS	0.00640	AT (	630284.97, 4272456.28, 5.89, 5.89, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00617	AT (	630311.31, 4272251.47, 4.57, 4.57, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00605	AT (	630330.54, 4272205.52, 4.57, 4.57, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00589	AT (	630331.79, 4272172.47, 4.57, 4.57, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00580	AT (	630356.87, 4272143.29, 4.57, 4.57, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00552	AT (	630356.66, 4272089.08, 4.57, 4.57, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00544	AT (	630390.38, 4272066.69, 4.64, 4.64, 0.00)	DC	

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          8TH HIGHEST VALUE IS      0.00474 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00431 AT (  630402.34,  4272193.55,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00419 AT (  630423.89,  4272121.75,
4.76,     4.76,    0.00)  DC

GENERATO  1ST HIGHEST VALUE IS      0.00170 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00164 AT (  630473.13,  4272480.72,
6.42,     6.42,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00148 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00146 AT (  630478.62,  4272278.67,
4.88,     4.88,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00111 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00110 AT (  630476.55,  4272212.70,
4.57,     4.57,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00100 AT (  630538.78,  4272243.82,
5.79,     5.79,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00099 AT (  630540.78,  4272299.27,
6.10,     6.10,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00087 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00087 AT (  631512.98,  4272387.44,
9.37,     9.37,    0.00)  DC

BOIL      1ST HIGHEST VALUE IS      8.85264 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      8.29667 AT (  630478.62,  4272278.67,
4.88,     4.88,    0.00)  DC
          3RD HIGHEST VALUE IS      8.05810 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
          4TH HIGHEST VALUE IS      7.77277 AT (  630473.13,  4272480.72,
6.42,     6.42,    0.00)  DC
          5TH HIGHEST VALUE IS      6.22157 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
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          6TH HIGHEST VALUE IS      6.18819 AT (  630540.78,  4272299.27,
6.10,     6.10,    0.00)  DC
          7TH HIGHEST VALUE IS      6.18088 AT (  630476.55,  4272212.70,
4.57,     4.57,    0.00)  DC
          8TH HIGHEST VALUE IS      5.88577 AT (  630538.78,  4272243.82,
5.79,     5.79,    0.00)  DC
          9TH HIGHEST VALUE IS      5.54192 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
         10TH HIGHEST VALUE IS      4.98423 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC

DPM       1ST HIGHEST VALUE IS      0.00705 AT (  630284.97,  4272456.28,
5.89,     5.89,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00659 AT (  630311.31,  4272251.47,
4.57,     4.57,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00650 AT (  630330.54,  4272205.52,
4.57,     4.57,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00631 AT (  630331.79,  4272172.47,
4.57,     4.57,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00626 AT (  630356.87,  4272143.29,
4.57,     4.57,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00592 AT (  630356.66,  4272089.08,
4.57,     4.57,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00588 AT (  630390.38,  4272066.69,
4.64,     4.64,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00562 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00508 AT (  630402.34,  4272193.55,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00498 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
OUTFALL	1ST HIGHEST VALUE IS	0.00015	AT (	630225.22, 4272160.04, 6.07, 6.07, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00013	AT (	630284.97, 4272456.28, 5.89, 5.89, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00010	AT (	630260.10, 4272113.95, 4.65, 4.65, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00009	AT (	630239.58, 4272095.42, 5.15, 5.15, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00007	AT (	630277.66, 4272064.21, 4.63, 4.63, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00006	AT (	630268.30, 4272026.00, 5.00, 5.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00006	AT (	630331.79, 4272172.47, 4.57, 4.57, 0.00)	DC	

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          8TH HIGHEST VALUE IS      0.00005 AT (  630356.66,  4272089.08,
4.57,     4.57,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00005 AT (  630311.31,  4272251.47,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00005 AT (  630330.54,  4272205.52,
4.57,     4.57,    0.00)  DC

SOCCER    1ST HIGHEST VALUE IS      0.00080 AT (  631512.98,  4272387.44,
9.37,     9.37,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00053 AT (  631551.28,  4272344.35,
10.04,    10.04,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00036 AT (  631457.93,  4272444.88,
9.37,     9.37,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00033 AT (  631524.95,  4272294.09,
10.17,    10.17,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00022 AT (  631359.79,  4272377.86,
9.75,     9.75,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00022 AT (  631412.45,  4272490.36,
9.45,     9.45,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00019 AT (  631369.36,  4272521.48,
9.45,     9.45,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00018 AT (  631617.68,  4272047.49,
7.32,     7.32,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00017 AT (  631309.52,  4272545.41,
9.10,     9.10,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00017 AT (  631626.61,  4272078.74,
7.32,     7.32,    0.00)  DC

HOSPITAL  1ST HIGHEST VALUE IS      8.85428 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      8.29809 AT (  630478.62,  4272278.67,
4.88,     4.88,    0.00)  DC
          3RD HIGHEST VALUE IS      8.05955 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
          4TH HIGHEST VALUE IS      7.77434 AT (  630473.13,  4272480.72,
6.42,     6.42,    0.00)  DC
          5TH HIGHEST VALUE IS      6.22262 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
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          6TH HIGHEST VALUE IS      6.18916 AT (  630540.78,  4272299.27,
6.10,     6.10,    0.00)  DC
          7TH HIGHEST VALUE IS      6.18196 AT (  630476.55,  4272212.70,
4.57,     4.57,    0.00)  DC
          8TH HIGHEST VALUE IS      5.88675 AT (  630538.78,  4272243.82,
5.79,     5.79,    0.00)  DC
          9TH HIGHEST VALUE IS      5.54271 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
         10TH HIGHEST VALUE IS      4.98506 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC

HOSPGEN   1ST HIGHEST VALUE IS      0.00164 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00157 AT (  630473.13,  4272480.72,
6.42,     6.42,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00145 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00143 AT (  630478.62,  4272278.67,
4.88,     4.88,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00107 AT (  630476.55,  4272212.70,
4.57,     4.57,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00105 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00097 AT (  630538.78,  4272243.82,
5.79,     5.79,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00096 AT (  630540.78,  4272299.27,
6.10,     6.10,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00083 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00080 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
```

 **MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
OTFL+I-5	1ST HIGHEST VALUE IS	0.00653	AT (	630284.97, 4272456.28, 5.89, 5.89, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00622	AT (	630311.31, 4272251.47, 4.57, 4.57, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00610	AT (	630330.54, 4272205.52, 4.57, 4.57, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00595	AT (	630331.79, 4272172.47, 4.57, 4.57, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00585	AT (	630356.87, 4272143.29, 4.57, 4.57, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00557	AT (	630356.66, 4272089.08, 4.57, 4.57, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00548	AT (	630390.38, 4272066.69, 4.64, 4.64, 0.00)	DC	

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          8TH HIGHEST VALUE IS      0.00478 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00434 AT (  630402.34,  4272193.55,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00422 AT (  630423.89,  4272121.75,
4.76,     4.76,    0.00)  DC

HOSPALL   1ST HIGHEST VALUE IS      8.85428 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      8.29809 AT (  630478.62,  4272278.67,
4.88,     4.88,    0.00)  DC
          3RD HIGHEST VALUE IS      8.05955 AT (  630425.60,  4272272.56,
4.88,     4.88,    0.00)  DC
          4TH HIGHEST VALUE IS      7.77434 AT (  630473.13,  4272480.72,
6.42,     6.42,    0.00)  DC
          5TH HIGHEST VALUE IS      6.22262 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          6TH HIGHEST VALUE IS      6.18916 AT (  630540.78,  4272299.27,
6.10,     6.10,    0.00)  DC
          7TH HIGHEST VALUE IS      6.18196 AT (  630476.55,  4272212.70,
4.57,     4.57,    0.00)  DC
          8TH HIGHEST VALUE IS      5.88675 AT (  630538.78,  4272243.82,
5.79,     5.79,    0.00)  DC
          9TH HIGHEST VALUE IS      5.54271 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
         10TH HIGHEST VALUE IS      4.98506 AT (  630371.63,  4272264.17,
4.88,     4.88,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
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 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:12:53

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 **MODELOPTs:  RegDFAULT CONC
ELEV


                                                  *** THE SUMMARY OF HIGHEST
1-HR RESULTS ***


                                   ** CONC OF PM_10    IN MICROGRAMS/M**3
**

                                                        DATE
NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)
RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

I-5      HIGH   1ST HIGH VALUE IS       0.09430  ON 11121907: AT (
630260.10,  4272113.95,     4.65,     4.65,    0.00)  DC

GENERATO HIGH   1ST HIGH VALUE IS       0.03697  ON 14022604: AT (
630473.13,  4272480.72,     6.42,     6.42,    0.00)  DC

BOIL     HIGH   1ST HIGH VALUE IS     181.07799  ON 14030823: AT (
630522.03,  4272416.16,     6.15,     6.15,    0.00)  DC

DPM      HIGH   1ST HIGH VALUE IS       0.09588  ON 11121907: AT (
630277.66,  4272064.21,     4.63,     4.63,    0.00)  DC

OUTFALL  HIGH   1ST HIGH VALUE IS       0.00202  ON 11120318: AT (
630225.22,  4272160.04,     6.07,     6.07,    0.00)  DC
```

```
SOCCER   HIGH   1ST HIGH VALUE IS       0.00864  ON 14032819: AT (
631524.95,  4272294.09,    10.17,    10.17,    0.00)  DC

HOSPITAL HIGH   1ST HIGH VALUE IS     181.07905  ON 14030823: AT (
630522.03,  4272416.16,     6.15,     6.15,    0.00)  DC

HOSPGEN  HIGH   1ST HIGH VALUE IS       0.03680  ON 14022604: AT (
630473.13,  4272480.72,     6.42,     6.42,    0.00)  DC

OTFL+I-5 HIGH   1ST HIGH VALUE IS       0.09430  ON 11121907: AT (
630260.10,  4272113.95,     4.65,     4.65,    0.00)  DC

HOSPALL  HIGH   1ST HIGH VALUE IS     181.07905  ON 14030823: AT (
630522.03,  4272416.16,     6.15,     6.15,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:12:53

PAGE   8
 **MODELOPTs:  RegDFAULT CONC
ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of        14879 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of        12186 Calm Hours Identified

 A Total of         2693 Missing Hours Identified (  6.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

RSPU Variant

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:24:10

PAGE   1
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                            ***     MODEL SETUP OPTIONS
SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    82 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   1500000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:     82 Source(s);       5 Source Group(s); and
126 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     1.83 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   Variant.err
 **File for Summary of Results:   Variant.sum
```

**MODELOPTs: RegDFAULT CONC ELEV

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES *** (METERS/SEC)

```
                                                    1.54,   3.09,   5.14,
8.23,  10.80,
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:24:10

PAGE   3
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                    *** UP TO THE FIRST 24 HOURS OF
METEOROLOGICAL DATA ***

   Surface file:   Exec 10-14 N1MD.SFC
Met Version:  14134
   Profile file:   Exec 10-14 N1MD.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:    23232                  Upper air station no.:
23230
                  Name: SACRAMENTO/EXECUTIVE_ARPT                  Name:
OAKLAND/WSO_AP
                  Year:   2010                                     Year:
2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0
BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -9.2  0.095 -9.000 -9.000 -999.   70.      8.5  0.07
0.94   1.00    2.36  131.   10.1  282.5    2.0
 10 01 01   1 02   -8.6  0.091 -9.000 -9.000 -999.   66.      8.0  0.06
0.94   1.00    2.36  118.   10.1  283.1    2.0
 10 01 01   1 03   -4.8  0.068 -9.000 -9.000 -999.   42.      6.0  0.06
0.94   1.00    1.76  114.   10.1  283.1    2.0
 10 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.5    2.0
 10 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 08  -16.5  0.289 -9.000 -9.000 -999.  372.    133.8  0.07
0.94   0.76    3.86  143.   10.1  283.1    2.0
 10 01 01   1 09    0.7  0.140  0.048  0.009    6.  142.   -387.3  0.06
0.94   0.40    1.76  177.   10.1  283.1    2.0
 10 01 01   1 10   22.2  0.222  0.412  0.006  115.  251.    -45.3  0.09
0.94   0.28    2.36  191.   10.1  284.2    2.0
 10 01 01   1 11   16.2  0.240  0.412  0.006  158.  282.    -78.1  0.06
0.94   0.23    2.86  164.   10.1  285.4    2.0
 10 01 01   1 12   20.9  0.239  0.486  0.006  200.  281.    -60.0  0.13
0.94   0.22    2.36  999.   10.1  285.4    2.0
 10 01 01   1 13   21.6 -9.000 -9.000 -9.000  234. -999. -99999.0  0.13
0.94   0.22    0.00    0.   10.1  285.4    2.0
 10 01 01   1 14   18.3  0.247  0.507  0.006  260.  295.    -75.7  0.07
0.94   0.23    2.86  129.   10.1  285.9    2.0
 10 01 01   1 15   11.0  0.242  0.436  0.006  274.  286.   -117.9  0.07
0.94   0.26    2.86  122.   10.1  286.4    2.0
 10 01 01   1 16    0.4  0.231  0.147  0.006  275.  266.  -2647.7  0.07
0.94   0.35    2.86  134.   10.1  286.4    2.0
 10 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   0.61    0.00    0.   10.1  286.4    2.0
 10 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  285.4    2.0
 10 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0
 10 01 01   1 20   -5.9  0.105 -9.000 -9.000 -999.   82.     17.8  0.21
0.94   1.00    1.76  247.   10.1  284.9    2.0
 10 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.9    2.0
 10 01 01   1 22   -3.8  0.069 -9.000 -9.000 -999.   43.      7.9  0.06
0.94   1.00    1.76  162.   10.1  284.2    2.0
 10 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.1 1  131.    2.36   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	1ST HIGHEST VALUE IS	0.00640	AT (	630284.97, 4272456.28, 5.89, 5.89, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00630	AT (	630299.42, 4272358.71, 4.90, 4.90, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00630	AT (	630282.66, 4272411.37, 4.95, 4.95, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00617	AT (	630311.31, 4272251.47, 4.57, 4.57, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00605	AT (	630330.54, 4272205.52, 4.57, 4.57, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00589	AT (	630331.79, 4272172.47, 4.57, 4.57, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00580	AT (	630356.87, 4272143.29, 4.57, 4.57, 0.00)	DC	

```
          8TH HIGHEST VALUE IS      0.00565 AT (  630318.57,  4272466.43,
6.10,     6.10,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00552 AT (  630356.66,  4272089.08,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00544 AT (  630390.38,  4272066.69,
4.64,     4.64,    0.00)  DC

GENERATO  1ST HIGHEST VALUE IS      0.00016 AT (  630299.42,  4272358.71,
4.90,     4.90,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00015 AT (  630282.66,  4272411.37,
4.95,     4.95,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00015 AT (  630225.22,  4272160.04,
6.07,     6.07,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00013 AT (  630284.97,  4272456.28,
5.89,     5.89,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00012 AT (  630318.57,  4272466.43,
6.10,     6.10,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00011 AT (  630335.32,  4272401.80,
5.28,     5.28,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00010 AT (  630332.93,  4272351.53,
5.01,     5.01,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00010 AT (  630260.10,  4272113.95,
4.65,     4.65,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00009 AT (  630239.58,  4272095.42,
5.15,     5.15,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00007 AT (  630277.66,  4272064.21,
4.63,     4.63,    0.00)  DC

DPM       1ST HIGHEST VALUE IS      0.00653 AT (  630284.97,  4272456.28,
5.89,     5.89,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00646 AT (  630299.42,  4272358.71,
4.90,     4.90,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00645 AT (  630282.66,  4272411.37,
4.95,     4.95,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00622 AT (  630311.31,  4272251.47,
4.57,     4.57,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00610 AT (  630330.54,  4272205.52,
4.57,     4.57,    0.00)  DC
```

```
          6TH HIGHEST VALUE IS      0.00595 AT (  630331.79,  4272172.47,
4.57,     4.57,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00585 AT (  630356.87,  4272143.29,
4.57,     4.57,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00577 AT (  630318.57,  4272466.43,
6.10,     6.10,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00557 AT (  630356.66,  4272089.08,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00554 AT (  630332.93,  4272351.53,
5.01,     5.01,    0.00)  DC

OUTFALL   1ST HIGHEST VALUE IS      0.00016 AT (  630299.42,  4272358.71,
4.90,     4.90,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00015 AT (  630282.66,  4272411.37,
4.95,     4.95,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00015 AT (  630225.22,  4272160.04,
6.07,     6.07,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00013 AT (  630284.97,  4272456.28,
5.89,     5.89,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00012 AT (  630318.57,  4272466.43,
6.10,     6.10,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00011 AT (  630335.32,  4272401.80,
5.28,     5.28,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00010 AT (  630332.93,  4272351.53,
5.01,     5.01,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00010 AT (  630260.10,  4272113.95,
4.65,     4.65,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00009 AT (  630239.58,  4272095.42,
5.15,     5.15,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00007 AT (  630277.66,  4272064.21,
4.63,     4.63,    0.00)  DC
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:24:10

PAGE   5
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                       *** THE SUMMARY OF MAXIMUM PERIOD
( 43824 HRS) RESULTS ***


                                     ** CONC OF PM_10    IN MICROGRAMS/M**3
**


NETWORK
GROUP ID                          AVERAGE CONC                RECEPTOR  (XR,
YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

OTFL+I-5  1ST HIGHEST VALUE IS      0.00653 AT (  630284.97,  4272456.28,
5.89,     5.89,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00646 AT (  630299.42,  4272358.71,
4.90,     4.90,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00645 AT (  630282.66,  4272411.37,
4.95,     4.95,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00622 AT (  630311.31,  4272251.47,
4.57,     4.57,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00610 AT (  630330.54,  4272205.52,
4.57,     4.57,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00595 AT (  630331.79,  4272172.47,
4.57,     4.57,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00585 AT (  630356.87,  4272143.29,
4.57,     4.57,    0.00)  DC
```

```
          8TH HIGHEST VALUE IS       0.00577 AT (  630318.57,  4272466.43,
6.10,     6.10,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00557 AT (  630356.66,  4272089.08,
4.57,     4.57,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00554 AT (  630332.93,  4272351.53,
5.01,     5.01,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	HIGH 1ST HIGH VALUE IS	0.09430	ON 11121907:	AT (| 630260.10, 4272113.95, 4.65, 4.65, 0.00)	DC	
GENERATO	HIGH 1ST HIGH VALUE IS	0.00202	ON 11120318:	AT (| 630225.22, 4272160.04, 6.07, 6.07, 0.00)	DC	
DPM	HIGH 1ST HIGH VALUE IS	0.09430	ON 11121907:	AT (| 630260.10, 4272113.95, 4.65, 4.65, 0.00)	DC	
OUTFALL	HIGH 1ST HIGH VALUE IS	0.00202	ON 11120318:	AT (| 630225.22, 4272160.04, 6.07, 6.07, 0.00)	DC	
OTFL+I-5	HIGH 1ST HIGH VALUE IS	0.09430	ON 11121907:	AT (| 630260.10, 4272113.95, 4.65, 4.65, 0.00)	DC	

```
*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        13:24:10

PAGE   7
 **MODELOPTs:  RegDFAULT CONC
ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of        14879 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of        12186 Calm Hours Identified

 A Total of         2693 Missing Hours Identified (  6.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

KPMC

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        19:20:30

PAGE   1
 **MODELOPTs:  NonDFAULT CONC                                    FLAT and
ELEV


                                            ***     MODEL SETUP OPTIONS
SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    83 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   1500000.0 ;  Urban Roughness Length =  1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Allow FLAT/ELEV Terrain Option by Source,
            with      0 FLAT and     83 ELEV Source(s).
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Used.
```

```
 **Model Assumes No FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:     83 Source(s);       8 Source Group(s); and
41 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     1.83 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   Hospital.err
 **File for Summary of Results:   Hospital.sum
```

**MODELOPTs: NonDFAULT CONC FLAT and ELEV

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES *** (METERS/SEC)

```
                                                    1.54,   3.09,   5.14,
8.23,  10.80,
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        19:20:30

PAGE   3
 **MODELOPTs:  NonDFAULT CONC                                   FLAT and
ELEV


                                   *** UP TO THE FIRST 24 HOURS OF
METEOROLOGICAL DATA ***

   Surface file:   Exec 10-14 N1MD.SFC
Met Version:  14134
   Profile file:   Exec 10-14 N1MD.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:    23232                  Upper air station no.:
23230
                  Name: SACRAMENTO/EXECUTIVE_ARPT                  Name:
OAKLAND/WSO_AP
                  Year:   2010                                     Year:
2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0
BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -9.2  0.095 -9.000 -9.000 -999.   70.      8.5  0.07
0.94   1.00    2.36  131.   10.1  282.5    2.0
 10 01 01   1 02   -8.6  0.091 -9.000 -9.000 -999.   66.      8.0  0.06
0.94   1.00    2.36  118.   10.1  283.1    2.0
 10 01 01   1 03   -4.8  0.068 -9.000 -9.000 -999.   42.      6.0  0.06
0.94   1.00    1.76  114.   10.1  283.1    2.0
 10 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.5    2.0
 10 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 08  -16.5  0.289 -9.000 -9.000 -999.  372.    133.8  0.07
0.94   0.76    3.86  143.   10.1  283.1    2.0
 10 01 01   1 09    0.7  0.140  0.048  0.009    6.  142.   -387.3  0.06
0.94   0.40    1.76  177.   10.1  283.1    2.0
 10 01 01   1 10   22.2  0.222  0.412  0.006  115.  251.    -45.3  0.09
0.94   0.28    2.36  191.   10.1  284.2    2.0
 10 01 01   1 11   16.2  0.240  0.412  0.006  158.  282.    -78.1  0.06
0.94   0.23    2.86  164.   10.1  285.4    2.0
 10 01 01   1 12   20.9  0.239  0.486  0.006  200.  281.    -60.0  0.13
0.94   0.22    2.36  999.   10.1  285.4    2.0
 10 01 01   1 13   21.6 -9.000 -9.000 -9.000  234. -999. -99999.0  0.13
0.94   0.22    0.00    0.   10.1  285.4    2.0
 10 01 01   1 14   18.3  0.247  0.507  0.006  260.  295.    -75.7  0.07
0.94   0.23    2.86  129.   10.1  285.9    2.0
 10 01 01   1 15   11.0  0.242  0.436  0.006  274.  286.   -117.9  0.07
0.94   0.26    2.86  122.   10.1  286.4    2.0
 10 01 01   1 16    0.4  0.231  0.147  0.006  275.  266.  -2647.7  0.07
0.94   0.35    2.86  134.   10.1  286.4    2.0
 10 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   0.61    0.00    0.   10.1  286.4    2.0
 10 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  285.4    2.0
 10 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0
 10 01 01   1 20   -5.9  0.105 -9.000 -9.000 -999.   82.     17.8  0.21
0.94   1.00    1.76  247.   10.1  284.9    2.0
 10 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.9    2.0
 10 01 01   1 22   -3.8  0.069 -9.000 -9.000 -999.   43.      7.9  0.06
0.94   1.00    1.76  162.   10.1  284.2    2.0
 10 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.1 1  131.    2.36   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

**MODELOPTs: NonDFAULT CONC FLAT and ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	1ST HIGHEST VALUE IS	0.00274 AT (630459.79, 4272408.98, 5.53, 5.53, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00254 AT (630470.78, 4272477.43, 6.35, 6.35, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00214 AT (630510.06, 4272485.57, 6.66, 6.66, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00209 AT (630522.03, 4272416.16, 6.15, 6.15, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00160 AT (630579.47, 4272490.36, 8.12, 8.12, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00154 AT (630591.44, 4272404.19, 8.46, 8.46, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00127 AT (630639.31, 4272610.04, 5.03, 5.03, 0.00)	DC	

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          8TH HIGHEST VALUE IS      0.00125 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00120 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00115 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

GENERATO  1ST HIGHEST VALUE IS      0.00164 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00153 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00105 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00080 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00079 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00055 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00049 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00046 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00034 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00033 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

BOIL      1ST HIGHEST VALUE IS      8.85264 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      7.56888 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      6.22157 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      5.54192 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          5TH HIGHEST VALUE IS      4.75901 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
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```
          6TH HIGHEST VALUE IS      3.84400 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
          7TH HIGHEST VALUE IS      3.45649 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          8TH HIGHEST VALUE IS      3.27076 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      2.39386 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      2.37349 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

DPM       1ST HIGHEST VALUE IS      0.00438 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00407 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00319 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00288 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00214 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00207 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00200 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00174 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00152 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00148 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC
```

**MODELOPTs: NonDFAULT CONC FLAT and ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
HOSPITAL	1ST HIGHEST VALUE IS	8.85428 AT (630459.79, 4272408.98, 5.53, 5.53, 0.00)	DC	
	2ND HIGHEST VALUE IS	7.57042 AT (630470.78, 4272477.43, 6.35, 6.35, 0.00)	DC	
	3RD HIGHEST VALUE IS	6.22262 AT (630510.06, 4272485.57, 6.66, 6.66, 0.00)	DC	
	4TH HIGHEST VALUE IS	5.54271 AT (630522.03, 4272416.16, 6.15, 6.15, 0.00)	DC	
	5TH HIGHEST VALUE IS	4.75981 AT (630639.31, 4272610.04, 5.03, 5.03, 0.00)	DC	
	6TH HIGHEST VALUE IS	3.84454 AT (630579.47, 4272490.36, 8.12, 8.12, 0.00)	DC	
	7TH HIGHEST VALUE IS	3.45694 AT (630591.44, 4272404.19, 8.46, 8.46, 0.00)	DC	

```
          8TH HIGHEST VALUE IS      3.27125 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      2.39418 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      2.37382 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

HOSPGEN   1ST HIGHEST VALUE IS      0.00164 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00153 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00105 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00080 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00079 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00055 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00049 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00046 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00034 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00033 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

OTFL+I-5  1ST HIGHEST VALUE IS      0.00274 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00254 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00214 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00209 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00160 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
```

```
          6TH HIGHEST VALUE IS      0.00154 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00127 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00125 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00120 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00115 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC

HOSPALL   1ST HIGHEST VALUE IS      8.85428 AT (  630459.79,  4272408.98,
5.53,     5.53,    0.00)  DC
          2ND HIGHEST VALUE IS      7.57042 AT (  630470.78,  4272477.43,
6.35,     6.35,    0.00)  DC
          3RD HIGHEST VALUE IS      6.22262 AT (  630510.06,  4272485.57,
6.66,     6.66,    0.00)  DC
          4TH HIGHEST VALUE IS      5.54271 AT (  630522.03,  4272416.16,
6.15,     6.15,    0.00)  DC
          5TH HIGHEST VALUE IS      4.75981 AT (  630639.31,  4272610.04,
5.03,     5.03,    0.00)  DC
          6TH HIGHEST VALUE IS      3.84454 AT (  630579.47,  4272490.36,
8.12,     8.12,    0.00)  DC
          7TH HIGHEST VALUE IS      3.45694 AT (  630591.44,  4272404.19,
8.46,     8.46,    0.00)  DC
          8TH HIGHEST VALUE IS      3.27125 AT (  630641.71,  4272533.45,
7.99,     7.99,    0.00)  DC
          9TH HIGHEST VALUE IS      2.39418 AT (  630651.28,  4272418.55,
9.55,     9.55,    0.00)  DC
         10TH HIGHEST VALUE IS      2.37382 AT (  630663.25,  4272492.76,
9.40,     9.40,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

**MODELOPTs: NonDFAULT CONC FLAT and ELEV

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	HIGH 1ST HIGH VALUE IS	0.03387	ON 10012607:	AT (| 630459.79, 4272408.98, 5.53, 5.53, 0.00)	DC
GENERATO	HIGH 1ST HIGH VALUE IS	0.03754	ON 14092618:	AT (| 630470.78, 4272477.43, 6.35, 6.35, 0.00)	DC
BOIL	HIGH 1ST HIGH VALUE IS	181.07799	ON 14030823:	AT (| 630522.03, 4272416.16, 6.15, 6.15, 0.00)	DC
DPM	HIGH 1ST HIGH VALUE IS	0.04297	ON 13041107:	AT (| 630459.79, 4272408.98, 5.53, 5.53, 0.00)	DC
HOSPITAL	HIGH 1ST HIGH VALUE IS	181.07905	ON 14030823:	AT (| 630522.03, 4272416.16, 6.15, 6.15, 0.00)	DC

```
HOSPGEN  HIGH   1ST HIGH VALUE IS       0.03754  ON 14092618: AT (
630470.78,  4272477.43,     6.35,     6.35,    0.00)  DC

OTFL+I-5 HIGH   1ST HIGH VALUE IS       0.03387  ON 10012607: AT (
630459.79,  4272408.98,     5.53,     5.53,    0.00)  DC

HOSPALL  HIGH   1ST HIGH VALUE IS     181.07905  ON 14030823: AT (
630522.03,  4272416.16,     6.15,     6.15,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

 **MODELOPTs: NonDFAULT CONC   FLAT and
ELEV

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   0 Warning Message(s)
 A Total of   14879 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   12186 Calm Hours Identified

 A Total of   2693 Missing Hours Identified (6.15 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
               *** NONE ***

Stadium

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:57:55

PAGE   1
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                            ***     MODEL SETUP OPTIONS
SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    82 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   1500000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:     82 Source(s);       5 Source Group(s); and
28 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     1.83 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   Stadium.err
 **File for Summary of Results:   Stadium.sum
```

**MODELOPTs: RegDFAULT CONC ELEV

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

```
                                                    1.54,   3.09,   5.14,
8.23,  10.80,
```

**MODELOPTs: RegDFAULT CONC ELEV

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: Exec 10-14 N1MD.SFC
Met Version: 14134
Profile file: Exec 10-14 N1MD.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23232 Upper air station no.: 23230
Name: SACRAMENTO/EXECUTIVE_ARPT Name: OAKLAND/WSO_AP
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-9.2	0.095	-9.000	-9.000	-999.	70.	8.5	0.07	0.94	1.00	2.36	131.	10.1	282.5	2.0
10	01	01	1	02	-8.6	0.091	-9.000	-9.000	-999.	66.	8.0	0.06	0.94	1.00	2.36	118.	10.1	283.1	2.0
10	01	01	1	03	-4.8	0.068	-9.000	-9.000	-999.	42.	6.0	0.06	0.94	1.00	1.76	114.	10.1	283.1	2.0
10	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.13	0.94	1.00	0.00	0.	10.1	283.1	2.0

```
 10 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.5    2.0
 10 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 08  -16.5  0.289 -9.000 -9.000 -999.  372.    133.8  0.07
0.94   0.76    3.86  143.   10.1  283.1    2.0
 10 01 01   1 09    0.7  0.140  0.048  0.009    6.  142.   -387.3  0.06
0.94   0.40    1.76  177.   10.1  283.1    2.0
 10 01 01   1 10   22.2  0.222  0.412  0.006  115.  251.    -45.3  0.09
0.94   0.28    2.36  191.   10.1  284.2    2.0
 10 01 01   1 11   16.2  0.240  0.412  0.006  158.  282.    -78.1  0.06
0.94   0.23    2.86  164.   10.1  285.4    2.0
 10 01 01   1 12   20.9  0.239  0.486  0.006  200.  281.    -60.0  0.13
0.94   0.22    2.36  999.   10.1  285.4    2.0
 10 01 01   1 13   21.6 -9.000 -9.000 -9.000  234. -999. -99999.0  0.13
0.94   0.22    0.00    0.   10.1  285.4    2.0
 10 01 01   1 14   18.3  0.247  0.507  0.006  260.  295.    -75.7  0.07
0.94   0.23    2.86  129.   10.1  285.9    2.0
 10 01 01   1 15   11.0  0.242  0.436  0.006  274.  286.   -117.9  0.07
0.94   0.26    2.86  122.   10.1  286.4    2.0
 10 01 01   1 16    0.4  0.231  0.147  0.006  275.  266.  -2647.7  0.07
0.94   0.35    2.86  134.   10.1  286.4    2.0
 10 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   0.61    0.00    0.   10.1  286.4    2.0
 10 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  285.4    2.0
 10 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0
 10 01 01   1 20   -5.9  0.105 -9.000 -9.000 -999.   82.     17.8  0.21
0.94   1.00    1.76  247.   10.1  284.9    2.0
 10 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.9    2.0
 10 01 01   1 22   -3.8  0.069 -9.000 -9.000 -999.   43.      7.9  0.06
0.94   1.00    1.76  162.   10.1  284.2    2.0
 10 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.1 1  131.    2.36   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	1ST HIGHEST VALUE IS	0.00074	AT (	629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00059	AT (	630862.85, 4272697.37, 7.62, 7.62, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00059	AT (	629877.14, 4272269.85, 4.81, 7.01, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00056	AT (	630884.28, 4272698.60, 7.62, 7.62, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00051	AT (	629847.97, 4272250.40, 6.34, 6.34, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00047	AT (	629829.03, 4272236.29, 5.51, 5.51, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00042	AT (	629764.99, 4272293.47, 5.85, 5.85, 0.00)	DC	

```
          8TH HIGHEST VALUE IS      0.00042 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00035 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00034 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC

GENERATO  1ST HIGHEST VALUE IS      0.00018 AT (  631617.68,  4272047.49,
7.32,     7.32,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00017 AT (  631626.61,  4272078.74,
7.32,     7.32,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00016 AT (  631525.25,  4272994.03,
7.01,     7.01,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00015 AT (  631644.46,  4272110.73,
7.32,     7.32,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00014 AT (  631656.37,  4272032.61,
7.32,     7.32,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00014 AT (  631659.34,  4272069.81,
7.32,     7.32,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00013 AT (  631657.11,  4272139.74,
7.48,     7.48,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00010 AT (  631714.39,  4272089.15,
7.37,     7.37,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00009 AT (  631724.81,  4272119.66,
7.57,     7.57,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00009 AT (  631433.92,  4272003.60,
7.32,     7.32,    0.00)  DC

DPM       1ST HIGHEST VALUE IS      0.00075 AT (  629758.21,  4272901.70,
8.10,     8.10,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00065 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00062 AT (  630884.28,  4272698.60,
7.62,     7.62,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00060 AT (  629877.14,  4272269.85,
4.81,     7.01,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00051 AT (  629847.97,  4272250.40,
6.34,     6.34,    0.00)  DC
```

```
          6TH HIGHEST VALUE IS       0.00048 AT (  629829.03,  4272236.29,
5.51,     5.51,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00043 AT (  629764.99,  4272293.47,
5.85,     5.85,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00043 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00036 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00035 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC

SOCCER    1ST HIGHEST VALUE IS       0.00018 AT (  631617.68,  4272047.49,
7.32,     7.32,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00017 AT (  631626.61,  4272078.74,
7.32,     7.32,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00016 AT (  631525.25,  4272994.03,
7.01,     7.01,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00015 AT (  631644.46,  4272110.73,
7.32,     7.32,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00014 AT (  631656.37,  4272032.61,
7.32,     7.32,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00014 AT (  631659.34,  4272069.81,
7.32,     7.32,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00013 AT (  631657.11,  4272139.74,
7.48,     7.48,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00010 AT (  631714.39,  4272089.15,
7.37,     7.37,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00009 AT (  631724.81,  4272119.66,
7.57,     7.57,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00009 AT (  631433.92,  4272003.60,
7.32,     7.32,    0.00)  DC
```

 **MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
OTFL+I-5	1ST HIGHEST VALUE IS	0.00074	AT (	629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00059	AT (	630862.85, 4272697.37, 7.62, 7.62, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00059	AT (	629877.14, 4272269.85, 4.81, 7.01, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00056	AT (	630884.28, 4272698.60, 7.62, 7.62, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00051	AT (	629847.97, 4272250.40, 6.34, 6.34, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00047	AT (	629829.03, 4272236.29, 5.51, 5.51, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00042	AT (	629764.99, 4272293.47, 5.85, 5.85, 0.00)	DC	

```
          8TH HIGHEST VALUE IS       0.00042 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00035 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00034 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	HIGH 1ST HIGH VALUE IS	0.02812	ON 14032107:	AT (| 629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC
GENERATO	HIGH 1ST HIGH VALUE IS	0.00300	ON 13112218:	AT (| 631373.58, 4272027.30, 7.44, 7.44, 0.00)	DC
DPM	HIGH 1ST HIGH VALUE IS	0.02812	ON 14032107:	AT (| 629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC
SOCCER	HIGH 1ST HIGH VALUE IS	0.00300	ON 13112218:	AT (| 631373.58, 4272027.30, 7.44, 7.44, 0.00)	DC
OTFL+I-5	HIGH 1ST HIGH VALUE IS	0.02812	ON 14032107:	AT (| 629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC

```
*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:57:55

PAGE   7
 **MODELOPTs:  RegDFAULT CONC
ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of        14879 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of        12186 Calm Hours Identified

 A Total of         2693 Missing Hours Identified (  6.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

Outfall

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:53:06

PAGE   1
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                            ***     MODEL SETUP OPTIONS
SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    82 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   1500000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:     82 Source(s);       5 Source Group(s); and
28 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                 m for
Missing Hours
                                                                 b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     1.83 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   Outfall.err
 **File for Summary of Results:   Outfall.sum
```

**MODELOPTs: RegDFAULT CONC ELEV

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES *** (METERS/SEC)

```
                                                    1.54,   3.09,   5.14,
8.23,  10.80,
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                  ***        04/07/16
                                  ***
***        12:53:06

PAGE   3
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                    *** UP TO THE FIRST 24 HOURS OF
METEOROLOGICAL DATA ***

   Surface file:   Exec 10-14 N1MD.SFC
Met Version:  14134
   Profile file:   Exec 10-14 N1MD.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:    23232                  Upper air station no.:
23230
                  Name: SACRAMENTO/EXECUTIVE_ARPT                  Name:
OAKLAND/WSO_AP
                  Year:   2010                                     Year:
2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0
BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -9.2  0.095 -9.000 -9.000 -999.   70.      8.5  0.07
0.94   1.00    2.36  131.   10.1  282.5    2.0
 10 01 01   1 02   -8.6  0.091 -9.000 -9.000 -999.   66.      8.0  0.06
0.94   1.00    2.36  118.   10.1  283.1    2.0
 10 01 01   1 03   -4.8  0.068 -9.000 -9.000 -999.   42.      6.0  0.06
0.94   1.00    1.76  114.   10.1  283.1    2.0
 10 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.5    2.0
 10 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  282.0    2.0
 10 01 01   1 08  -16.5  0.289 -9.000 -9.000 -999.  372.    133.8  0.07
0.94   0.76    3.86  143.   10.1  283.1    2.0
 10 01 01   1 09    0.7  0.140  0.048  0.009    6.  142.   -387.3  0.06
0.94   0.40    1.76  177.   10.1  283.1    2.0
 10 01 01   1 10   22.2  0.222  0.412  0.006  115.  251.    -45.3  0.09
0.94   0.28    2.36  191.   10.1  284.2    2.0
 10 01 01   1 11   16.2  0.240  0.412  0.006  158.  282.    -78.1  0.06
0.94   0.23    2.86  164.   10.1  285.4    2.0
 10 01 01   1 12   20.9  0.239  0.486  0.006  200.  281.    -60.0  0.13
0.94   0.22    2.36  999.   10.1  285.4    2.0
 10 01 01   1 13   21.6 -9.000 -9.000 -9.000  234. -999. -99999.0  0.13
0.94   0.22    0.00    0.   10.1  285.4    2.0
 10 01 01   1 14   18.3  0.247  0.507  0.006  260.  295.    -75.7  0.07
0.94   0.23    2.86  129.   10.1  285.9    2.0
 10 01 01   1 15   11.0  0.242  0.436  0.006  274.  286.   -117.9  0.07
0.94   0.26    2.86  122.   10.1  286.4    2.0
 10 01 01   1 16    0.4  0.231  0.147  0.006  275.  266.  -2647.7  0.07
0.94   0.35    2.86  134.   10.1  286.4    2.0
 10 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   0.61    0.00    0.   10.1  286.4    2.0
 10 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  285.4    2.0
 10 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0
 10 01 01   1 20   -5.9  0.105 -9.000 -9.000 -999.   82.     17.8  0.21
0.94   1.00    1.76  247.   10.1  284.9    2.0
 10 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.9    2.0
 10 01 01   1 22   -3.8  0.069 -9.000 -9.000 -999.   43.      7.9  0.06
0.94   1.00    1.76  162.   10.1  284.2    2.0
 10 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  283.1    2.0
```

```
 10 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.13
0.94   1.00    0.00    0.   10.1  284.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.1 1  131.    2.36   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

**MODELOPTs: RegDFAULT CONC ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
I-5	1ST HIGHEST VALUE IS	0.00074	AT (	629758.21, 4272901.70, 8.10, 8.10, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00059	AT (	630862.85, 4272697.37, 7.62, 7.62, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00059	AT (	629877.14, 4272269.85, 4.81, 7.01, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00056	AT (	630884.28, 4272698.60, 7.62, 7.62, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00051	AT (	629847.97, 4272250.40, 6.34, 6.34, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00047	AT (	629829.03, 4272236.29, 5.51, 5.51, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00042	AT (	629764.99, 4272293.47, 5.85, 5.85, 0.00)	DC	

```
          8TH HIGHEST VALUE IS      0.00042 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00035 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00034 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC

GENERATO  1ST HIGHEST VALUE IS      0.00003 AT (  629758.21,  4272901.70,
8.10,     8.10,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00001 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00001 AT (  630884.28,  4272698.60,
7.62,     7.62,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00001 AT (  629877.14,  4272269.85,
4.81,     7.01,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00001 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00001 AT (  629764.99,  4272293.47,
5.85,     5.85,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00001 AT (  629847.97,  4272250.40,
6.34,     6.34,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00001 AT (  629829.03,  4272236.29,
5.51,     5.51,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00001 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00001 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC

DPM       1ST HIGHEST VALUE IS      0.00077 AT (  629758.21,  4272901.70,
8.10,     8.10,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00061 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00060 AT (  629877.14,  4272269.85,
4.81,     7.01,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00057 AT (  630884.28,  4272698.60,
7.62,     7.62,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00051 AT (  629847.97,  4272250.40,
6.34,     6.34,    0.00)  DC
```

```
          6TH HIGHEST VALUE IS      0.00048 AT (  629829.03,  4272236.29,
5.51,     5.51,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00043 AT (  629764.99,  4272293.47,
5.85,     5.85,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00042 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00036 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00035 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC

OUTFALL   1ST HIGHEST VALUE IS      0.00003 AT (  629758.21,  4272901.70,
8.10,     8.10,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00001 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00001 AT (  630884.28,  4272698.60,
7.62,     7.62,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00001 AT (  629877.14,  4272269.85,
4.81,     7.01,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00001 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00001 AT (  629764.99,  4272293.47,
5.85,     5.85,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00001 AT (  629847.97,  4272250.40,
6.34,     6.34,    0.00)  DC
          8TH HIGHEST VALUE IS      0.00001 AT (  629829.03,  4272236.29,
5.51,     5.51,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00001 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00001 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:53:06

PAGE   5
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                       *** THE SUMMARY OF MAXIMUM PERIOD
( 43824 HRS) RESULTS ***


                                     ** CONC OF PM_10    IN MICROGRAMS/M**3
**


NETWORK
GROUP ID                          AVERAGE CONC                RECEPTOR  (XR,
YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

OTFL+I-5  1ST HIGHEST VALUE IS      0.00077 AT (  629758.21,  4272901.70,
8.10,     8.10,    0.00)  DC
          2ND HIGHEST VALUE IS      0.00061 AT (  630862.85,  4272697.37,
7.62,     7.62,    0.00)  DC
          3RD HIGHEST VALUE IS      0.00060 AT (  629877.14,  4272269.85,
4.81,     7.01,    0.00)  DC
          4TH HIGHEST VALUE IS      0.00057 AT (  630884.28,  4272698.60,
7.62,     7.62,    0.00)  DC
          5TH HIGHEST VALUE IS      0.00051 AT (  629847.97,  4272250.40,
6.34,     6.34,    0.00)  DC
          6TH HIGHEST VALUE IS      0.00048 AT (  629829.03,  4272236.29,
5.51,     5.51,    0.00)  DC
          7TH HIGHEST VALUE IS      0.00043 AT (  629764.99,  4272293.47,
5.85,     5.85,    0.00)  DC
```

```
          8TH HIGHEST VALUE IS       0.00042 AT (  629822.17,  4272176.82,
5.42,     5.42,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00036 AT (  629751.26,  4272199.69,
5.51,     5.51,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00035 AT (  630963.38,  4271597.99,
7.61,     7.61,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:53:06

PAGE   6
 **MODELOPTs:  RegDFAULT CONC
ELEV


                                                *** THE SUMMARY OF HIGHEST
1-HR RESULTS ***


                                     ** CONC OF PM_10    IN MICROGRAMS/M**3
**

                                                          DATE
NETWORK
GROUP ID                              AVERAGE CONC     (YYMMDDHH)
RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

I-5      HIGH   1ST HIGH VALUE IS       0.02812  ON 14032107: AT (
629758.21,  4272901.70,     8.10,     8.10,    0.00)  DC

GENERATO HIGH   1ST HIGH VALUE IS       0.00061  ON 14013023: AT (
629822.17,  4272176.82,     5.42,     5.42,    0.00)  DC

DPM      HIGH   1ST HIGH VALUE IS       0.02848  ON 10021107: AT (
629758.21,  4272901.70,     8.10,     8.10,    0.00)  DC

OUTFALL  HIGH   1ST HIGH VALUE IS       0.00061  ON 14013023: AT (
629822.17,  4272176.82,     5.42,     5.42,    0.00)  DC

OTFL+I-5 HIGH   1ST HIGH VALUE IS       0.02848  ON 10021107: AT (
629758.21,  4272901.70,     8.10,     8.10,    0.00)  DC
```

```
*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
```

```
 *** AERMOD - VERSION  12060 ***   *** C:\Users\sda\Desktop\Kaiser -
AERMOD\Railyards.isc                   ***        04/07/16
                                  ***
***        12:53:06

PAGE   7
 **MODELOPTs:  RegDFAULT CONC
ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of        14879 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of        12186 Calm Hours Identified

 A Total of         2693 Missing Hours Identified (  6.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

Appendix D
Biological Resources Data

Species Observed within the RSP Area 2015

ESA

SPECIES OBSERVED WITHIN THE RSP AREA 2015

Scientific Name	Common Name
Acacia melanoxylon	black acacia
Acer negundo	box elder
Ailanthus altissima	tree of heaven
Avena fatua	oat
Baccharis pilularis	coyote brush
Brassica sp.	mustard
Bromus diandrus	rip-gut brome
Bromus hordeaceus	soft chess
Buteo jamaicensis	red-tailed hawk
Cardiis pynocephalus	italian thistle
Centauries solstitialis	yellow star thistle
Cephalanthus occidentalis	California buttonbrush
Charadrius vociferus	killdeer
Concolvulus arvensis	field bindweed
Cynodon dactylon	Bermuda grass
Dittrichia graveolens	stinkwort
Erigeron sp.	fleabane
Eucalyptus globulus	blue gum
Ficus carica	common fig
Fraximus latifolia	Oregon ash
Geranium dissectum	cutleaf geranium
Heterotheca sessilidlora	golden aster
Holocarpha sp.	tarweed
Juglans hinsii	northern California black walnut
Juglans regia	English walnut
Lactuca serriola	prickley lettuce
Lepus californicus	black-tailed jack rabbit
Malva sp.	malva
Mimus polyglottos	northern mocking bird
Nerium sp.	oleander
Nicotiana glauca	tobacco bush
Pistacia chinensis	Chinese pistache
Platanus racemosa	California sycamore
Polypogon monsepeliensis	rabbit's foot grass
Populus fremontii	Fremont cottonwood
Prunus sp.	cherry

SPECIES OBSERVED WITHIN THE RSP AREA 2015

Scientific Name	Common Name
Quercus lobata	valley oak
Quercus wislizeni	interior live oak
Quercys suber	cork oak
Rubus	Himalayan blackberry
Salix exigua	narrow leaf willow
Salix interior	sandbar willow
Salix lasiolepis	arroyo willow
Salix nigra	black willow
Sambucus caerulea	elderberry
Silibum marianum	milkthistle
Ulmus parvifolia	Chinese elm
Vitis californica	California wild grape
Zenaida macroura	mourning dove
Columba livia	rock dove

Special-Status Species with the Potential to Occur within the RSP Area

ESA

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Invertebrates				
Andrena subapasta	an andrenid bee	--/--/--	Collects pollen primarily from *Arenaria californica* but also *Orthocarpus erianthus* & *Lasthenia* sp.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Branchinecta conservatio	Conservancy fairy shrimp	FE/--/--	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within two miles of the RSP Area. This species was not observed during reconnaissance surveys.
Branchinecta lynchi	Vernal pool fairy shrimp	FT/--/--	Vernal pools and other seasonal wetlands in open grassland habitat.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Branchinecta mesovallensis	Midvalley fairy shrimp	--/--/--	Vernal pools in the Central Valley.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within two miles of the RSP Area. This species was not observed during reconnaissance surveys.
Cicindela hirticollis abrupta	Sacramento Valley tiger beetle	--/--/--	Sandy floodplain habitat in the Sacramento valley. Requires fine to medium sand, terraced floodplains or low sandy water edge flats.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT/--/--	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**High**. Several elderberry shrubs and shrub clusters are known to occur within or directly adjacent to the RSP Area. A few elderberry shrub clusters occur along 12th Street, just south of N. B Street; one shrub occurs on the southern portion of the RSP Area, near 6th and F Streets, and one shrub occurs just outside of the project footprint on the northwest corner of the RSP Area between Bercut Drive and the I-5 right of way. CNDDB records show several occurrences of valley elderberry longhorn beetle along the Sacramento and American River within one mile of the RSP Area. No elderberry shrubs were observed within Valley Foothill Riparian habitat along the Sacramento River on the western side of the RSP Area.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Dumontia oregonensis	Hairy water flea	--/--/--	Vernal pools. In California, known only from Mather Field.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	--/--/--	Natural history of this aquatic species is not well known. Regionally, it is known to occur in Mather Field Regional Park.	**Unlikely.** Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Lepidurus packardi	Vernal pool tadpole shrimp	FE/--/--	Vernal pools and other seasonal wetlands in open grassland habitat.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Linderiella occidentalis	California linderiella	--/--/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Myrmosula pacifica	Antioch multilid wasp	--/--/--	Natural history of this species is not well known.	**Unlikely.** Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Reptiles				
Emys marmorata	Western pond turtle	FSC/CSC/None	Streams, rivers, ponds, marshes and other aquatic habitats. Requires secure basking area where they can easily escape to water. Upland nesting sites can be as much as 300 feet from aquatic habitat, but are usually closer.	**Medium.** The Sacramento River provides suitable aquatic habitat. While the constructed basin onsite provides suitable aquatic and upland habitat, western pond turtle is unlikely to occur. Potential for occurrence in the constructed basin is low due to its recent construction in 2013, its isolation from the Sacramento River, or other suitable aquatic sites.
Thamnophis gigas	giant garter snake	FT/ST/--	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals & and irrigation ditches. This is the most aquatic of the garter snakes in California.	**Unlikely**. No suitable habitat present within the RSP. Giant garter snake is not known to occur south of the American River and east of the Sacramento River in the vicinity of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Amphibians				
Ambystoma californiense	California tiger salamander	FT/CT/--	Grassland, oak savanna, and edges of mixed woodland and lower elevation coniferous forest. Requires temporary breeding ponds to breed. Spends most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. Requires both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds in order to survive and reproduce.	**Unlikely**. No suitable habitat present within the RSP. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Rana draytonii	California red-legged frog	FT/CSC/--	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Spea hammondii	Western spadefoot	--/CSC/--	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Fish				
Archoplites interruptus	Sacramento perch	--/CSC/--	Historically found in the sloughs, slow-moving rivers, and lakes of the central valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of Physio-chemical water conditions.	**Unlikely.** Extirpated from the Sacramento River. Populations may exist in farm ponds and reservoirs, but no instream populations remain.
Hypomesus transpacificus	Delta smelt	FT/CT/-	Occurs in Sacramento-San Joaquin Delta most of the year. Spawns in tidally influenced freshwater wetlands and seasonally submerged uplands along the Sacramento River, downstream from its confluence with the American River.	**Medium.** No suitable habitat exists within the project boundaries. However, adult delta smelt are known to occur in the Sacramento River as far upstream as its confluence with the American River. As of 1993, delta smelt were known to spawn in the Sacramento River as far upstream as the City of Sacramento.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Spirinchus thaleichthys	Longfin smelt	FT/CSC/--	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand, but can be found in completely freshwater to almost pure seawater.	**Unlikely.** Potential suitable habitat within the Sacramento River. However, this species is known to spawn as far upstream as Isleton in the Sacramento River, approximately 35 miles south of the RSP Area.
Oncorhynchus mykiss	Central Valley steelhead	FT/--/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	**High.** No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Oncorhynchus tshawytscha	Central Valley spring-run Chinook salmon	FT/CT/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	**High.** No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Oncorhynchus tshawytscha	Sacramento River winter-run Chinook salmon	FE/CE/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	**High.** No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Oncorhynchus tshawytscha	Central Valley fall-/late fall-run Chinook salmon	--/CSC/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	**High.** No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Pogonichthys macroleipidotus	Sacramento spittail	--/CSC/--	Spawning and juvenile rearing from winter to early summer in shallow weedy areas inundated during seasonal flooding in the lower reaches and flood bypasses of the Sacramento River including the Yolo Bypass.	**High.** No suitable habitat exists within the project boundaries. However, suitable habitat exists within the Sacramento River adjacent to the RSP Area.
Acipenser medirostris	Southern distinct population segment North American green sturgeon	FT/--/--	Requires cool, freshwater streams with suitable substrate for spawning; rears in rivers, tributaries, and Delta.	**High.** No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Birds				
Accipiter cooperi	Cooper's hawk	--/WL/--	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	**Low.** The site does not support relatively dense stands of mature trees typically used for nesting.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Agelaius tricolor	Tricolored blackbird	--/CSC/--	Highly colonial species, most numerous in central valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Ammodramus savannarum	Grasshopper sparrow	--/CSC/--	Dense grasslands on rolling hills, lowland plains, in valleys & on hillsides on lower Mountain slopes. Favors native grasslands with a mix of grasses, forbs & scattered shrubs. Loosely colonial when nesting.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Aquila chrysaetos	Golden eagle	--/FP/--	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Ardea alba	Great egret	--/--/--	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers And lakes.	**Low.** No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species recorded in the CNDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Ardea herodias	Great blue heron	--/--/--	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	**Low.** No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species recorded in the CNDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Athene cunicularia	burrowing owl	--/CSC/--	Forages in open plains, grasslands, and prairies; typically nests in abandoned small mammal burrows.	**Low.** The site provides potential foraging habitat for this species; however, no ground squirrel burrows or other suitable nesting habitat was observed during the 2015 reconnaissance. This species was not observed during the reconnaissance.
Buteo regalis	Ferruginous hawk	--/WL/--	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and Juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Buteo swainsoni	Swainson's hawk	--/ST/--	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Medium.** Suitable nest trees are present along the Sacramento River. Open areas of the project site and patchy ruderal vegetation provides limited foraging opportunities for this species.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Charadrius alexandrines nivosus	Western snowy plover	FT/CSC/--	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Charadrius montanus	Mountain plover	--/CSC/--	Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod Farms. Short vegetation, bare ground & flat topography. Prefers grazed areas & areas with burrowing rodents.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FT/CE/--	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Egretta thula	Snowy egret	--/--/--	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	**Low.** No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species not recorded in the CNDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Elanus leucurus	white-tailed kite	--/FP/--	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Medium**. Suitable nest trees are present along the Sacramento River. Open areas of the project site and patchy ruderal vegetation provides marginal foraging habitat for this species.
Falco columbarius	Merlin	--/WL/--	Nest in forested openings, edges, and along rivers. May also nest in towns and cities (using crow nests in conifers planted in residential areas, schoolyards, parks, and cemeteries). During migration and winter, this species can be seen using open forest, grassland, and coastal areas.	**Low**. Species does not breed in California; breeds in Alaska and Canada. Uncommon winter migrant from September to May. Open areas of the project site and patchy ruderal vegetation provides marginal foraging habitat for this species.
Melospiza melodia	Song sparrow ("Modesto" population)	--/CSC/--	Prefers open habitat, including marsh edges, overgrown fields, backyards, desert washes, and forest edges. Commonly visit bird feeders and build nests in residential areas.	**Unlikely.** No suitable habitat for this species within the RSP Area. No recent occurrences recorded within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Nycticorax nycticorax	Black-crowned night heron	--/--/--	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	**Unlikely.** No suitable nesting or foraging habitat for this species within the RSP Area. No recent occurrences recorded within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Phalacrocorax auritus	Double-crested cormorant	--/WL/--	Colonial nester on coastal cliffs, offshore islands, & along lake margins in the interior of The state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	**Low.** No suitable habitat for this species within the RSP Area; however, species may use the Sacramento River. No recent occurrences recorded within five miles of the RSP Area. This species was observed in the Sacramento River during reconnaissance surveys.
Plegadis chihi	White-faced ibis	--/WL/--	Shallow fresh-water marsh. Dense tule thickets for nesting interspersed with areas of shallow water for foraging.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Progne subis	purple martin	--/ CSC /--	Inhabits woodlands, low elevation coniferous forest of Douglas-fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), and Monterey pine (*Pinus radiata*). Nests primarily in old woodpecker cavities, also in human-made structures. Nest often located in tall, isolated tree/snag.	**High**. Known occurrence identified in the CNDDB at the I-Street Bridge and elevated structure of I-5 in the vicinity of the Railroad Museum.
Riparia riparia	Bank swallow	--/CT/--	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Vireo bellii pusillus	Least Bell's vireo	FE/CE/--	Inhabits dense, low, scrub habitat, generally early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands, often near water in arid regions. Species is a summer resident of southern California in low riparian in vicinity of water or in dry river bottoms.	**Low.** Species is known to occur along South Fork Putah Creek, Putah Creek, Putah Creek sinks, in the vicinity of the Yolo Bypass Wildlife Area and was last observed in 2011.[1] There is one presumably extant record from 1877 in West Sacramento; however, no recent populations or observations were recorded within five miles of the RSP Area.

1 California Department of Fish and Wildlife (CDFW). 2015a. California Natural Diversity Database (CNDDB) RareFind 5 personal computer program. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed on: September 8, 2015.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Xanthocephalus xanthocephalus	Yellow-headed blackbird	--/CSC/--	Nests in freshwater emergent wetlands with dense vegetation & deep water. Often along Borders of lakes or ponds. Nests only where large insects such as *Odonata* are abundant, nesting timed with maximum emergence of aquatic insects.	**Unlikely.** No suitable nesting or foraging habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Mammals				
Antrozous pallidus	Pallid bat	--/CSC/--	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Medium.** No suitable roosting habitat for this species within the RSP Area; specifically under the I Street Bridge, the elevated structure of I-5, and within the historic train depot buildings associated with the Central Shops Historic District and the Sacramento Valley Station.[2] No CNDDB record of species within five miles of the RSP Area.[3] This species was not observed during reconnaissance surveys.
Lasionycteris noctivagans	Silver-haired bat	--/--/--	Primarily a coastal & montane forest dweller feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes & rarely under rocks. Needs drinking water.	**Low.** Species range typically includes coastal and montane forests from the Oregon border south along the coast to San Francisco Bay and along the Sierra Nevada and Great Basin region to Inyo County. It is unlikely to occur in the RSP Area. Species not known to occur within five miles of the RSP Area. Species may be present during migration in the Sacramento Area. This species was not observed during reconnaissance surveys.

2 City of Sacramento. 2007. Railyards Specific Plan Environmental Impact Report. Certified December 11, 2007.

3 California Department of Fish and Wildlife (CDFW). 2015a. California Natural Diversity Database (CNDDB) RareFind 5 personal computer program. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed on: September 8, 2015.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Lasiurus blossevillii	Western red bat	--/CSC/--	Preferred roosting habitat includes forests and woodlands. Feeds over grassland, shrubland, open woodland, forests, and cropland	**High.** Species was documented in the vicinity of RSP Area.[4]
Lasiurus cinereus	hoary bat	--/--/--	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	**Medium.** Species may roost within riparian habitat along the Sacramento River and forage within the RSP Area. Recorded occurrence in West Sacramento, west of the RSP Area and the Sacramento River.
Myotis yumanensis	Yuma myotis	--/--/--	Prefers open forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, and crevices.	**High.** Species was documented in the vicinity of the RSP Area.[5]
Taxidea taxus	American badger	--/CSC/--	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with Friable soils. Needs sufficient food, friable soils & open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Low.** No significant burrowing rodents observed in the RSP Area sufficient to support species. Evidence of species presence (burrows, prints, and scat) not observed during reconnaissance. Nearest recorded occurrence is located approximately four miles southeast of the RSP Area.
Plants				
Astragalus pauperculus	Depauperate milk-vetch	--/--/4.3	Alkali playa, valley and foothill grassland, vernal pools. low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	--/--/1B.1	Meadows, valley and foothill grassland. subalkaline flats on overflow land in the central valley; usually seen in dry, adobe soil. 5-75m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species known to occur in the Yolo Bypass area, within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Astragalus tener var. *tener*	Alkali milk-vetch	--/--/1B.2	Alkali playa, valley and foothill grassland, vernal pools. low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

[4] California Department of Transportation, 2016. I Street Bridge Replacement Project Natural Environment Study. Sacramento and Yolo Counties, Federal Project No.: BRLS 5002(164). February.

[5] California Department of Transportation, 2016. I Street Bridge Replacement Project Natural Environment Study. Sacramento and Yolo Counties, Federal Project No.: BRLS 5002(164). February.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Atriplex cordulata var. *cordulata*	Heartscale	--/--/1B.2	Chenopod scrub, valley and foothill grassland, meadows. alkaline flats and scalds in the central valley, sandy soils. 0-560 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Atriplex depressa	Brittlescale	--/--/1B.2	Chenopod scrub, meadows, playas, valley and foothill grassland, vernal pools. usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 1-320 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Carex comosa	Bristly sedge	--/--/2B.1	Marshes and swamps. Lake margins, wet places; site below sea level is on a Delta island. -5-1005m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Centromadia parryi subsp. *rudis*	Parry's rough tarplant	--/--/4.2	Alkaline, vernally mesic, seeps, sometimes roadsides. Valley and foothill grassland, vernal pools. 0-100 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Chloropyron palmatum	Palmate-bracted bird's beak	FE/CE/1B.1	Chenopod scrub, valley and foothill grassland. Usually on Pescadero silty clay which is alkaline, with *Distichlis, Frankenia*, etc. 5-155 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	--/--/2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15-280 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Downingia pusilla	Dwarf downingia	--/--/2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. in several types of vernal pools. 1-445 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Extriplex joaquinana	San Joaquin spearscale	--/--/1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Fritillaria agrestis	Stinkbells	--/--/4.2	Cismontane woodland, chaparral, valley and foothill grassland. sometimes on serpentine; mostly found in nonnative grassland or in grassy openings in clay soil. 10-1555 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

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Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Gratiola heterosepala	Boggs Lake hedge-hyssop	FE/--/1B.2	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Hesperevax caulescens	Hogwallow starfish	--/--/4.2	Valley and foothill grassland (mesic, clay), vernal pools (shallow). 0-505 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Hibiscus lasiocarpos var. *occidentalis*	Wooly rose-mallow	--/--/1B.2	Marshes and swamps (freshwater). Moist, freshwater-soaked river banks & low peat islands in sloughs; can also occur on riprap and levees. In California, known from the Delta watershed. 0-120 m.	**Low.** No suitable habitat for this species within the RSP Area. Suitable habitat may occur along the Sacramento River. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Juglans hindsii	Northern California black walnut	--/--/1B.1	Riparian forest, riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0-440 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was observed during reconnaissance surveys; however, no native stands were observed.
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	--/--/1B.2	Vernal pools, valley and foothill grassland. Restricted to the edges of vernal pools. 30-229 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Legenere limosa	Legenere	--/--/1B.1	Vernal pools. In beds of vernal pools. 1-880 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Lepidium latipes var. *heckardii*	Heckard's pepper-grass	--/--/1B.2	Valley and foothill grassland. Grassland, and sometimes vernal pool edges. Alkaline soils. 2-200 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Lilaeopsis masonii	Mason's lilaeopsis	--/--/1B.1	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0-10 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Myosurus minimus subsp. *apus*	Little mousetail	--/--/3.1	Valley and foothill grassland, vernal pools (alkaline). 20-640 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Navarretia eriocephala	Hoary navarretia	--/--/1B.1	Vernally mesic. Cismontane woodland, valley and foothill grassland. 105-400 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Navarretia leucocephala subsp *bakeri*	Baker's navarretia	--/--/1B.1	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 5-1740 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Neostapfia colusana	Colusa grass	FT/CE/1B.1	Vernal pools. Usually in large, or deep vernal pool bottoms; adobe soils. 5-200 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Orcuttia tenuis	Slender Orcutt grass	FT/CE/1B.1	Vernal pools. Often in gravelly pools. 35-1760 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Orcuttia viscida	Sacramento Orcutt grass	FE/CE/1B.1	Vernal pools. 30-100 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Plagiobothrys hystriculus	Bearded popcornflower	--/--/1B.1	Vernal pools, valley and foothill grassland. Wet sites. 0-275 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Sagittaria sandfordii	Sandford's arrowhead	--/--/1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-650 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Symphyotrichum lentum	Suisun Marsh aster	--/--/1B.2	Marshes and swamps (brackish and freshwater). most often seen along sloughs with *Phragmites*, *Scirpus*, blackberry, *Typha*, etc. 0-3 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Trifolium hydrophilum	Saline clover	--/--/1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0-300 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Tuctoria mucronata	Crampton's tuctoria (Solano grass)	FE/CE/1B.1	Vernal pools, valley and foothill grassland. Clay bottoms of drying vernal pools and lakes in valley grassland. 5-10 m.	**Unlikely.** No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Sensitive Vegetation Communities				
Elderberry savanna	--	--	Open to moderately closed stands characterized by *Sambucus Mexicana*. Understory typically dominated by grasses. Occurs in association with remnant riparian forest vegetation.	**Unlikely.** Habitat not present within or directly adjacent to the RSP Area.
Great Valley Cottonwood Riparian Forest	--	--	A dense, broadleafed, winter deciduous riparian forest dominated by Fremont cottonwood (*Populus fremontii*) and Goodding's black willow (*Salix gooddingii*). The understory is usually dense, with abundant vegetative reproduction of canopy dominants and California wild grape is the most conspicuous vine. Habitat experiences frequent flooding.	**Unlikely.** Habitat not present within or directly adjacent to the RSP Area.
Great Valley Valley Oak Riparian Forest	--	--	Medium to tall (rarely to 100 feet) broadleaved, winter deciduous, closed-canopy riparian forest dominated by Valley oak (*Quercus lobata*). Understories include scattered Oregon ash, Northern California black walnut, and western sycamore as well as young valley oaks. Vines are relatively scattered throughout the shady understory but quickly become conspicuous occupying gaps where light is available.	**High.** Habitat occurs adjacent to the RSP Area along the Sacramento River.
Northern Claypan Vernal Pool	--	--	Similar to Northern Hardpan Vernal Pools, but with less topographical relief, and usually lower overall cover. Pools range in size from the small (a few square meters) to quite large (covering several hectares).	**Unlikely.** Habitat not present within or directly adjacent to the RSP Area.
Northern Hardpan Vernal Pool	--	--	Community is dominated by annual grasses and herbs that grow in and out of the water. Germination and growth begin with winter rains, often continuing even when inundated. These pools gradually evaporate during spring, leaving concentric bands of vegetation that colorfully encircle the drying pools.	**Unlikely.** Habitat not present within or directly adjacent to the RSP Area.
Northern Volcanic Mudflow Vernal Pool	--	--	Pools occur on Tertiary volcanic mudflows called lahars. Pools form after winter rains in settings of impeded water over rock-bound depressions. The pools are small, forming in irregular depressions in gently sloping surfaces. Habitat is seasonally flooded and seasonally saturated.	**Unlikely.** Habitat not present within or directly adjacent to the RSP Area.

KEY:

Federal: (USFWS)
- *FE = Listed as Endangered by the Federal Government*
- *FT = Listed as Threatened by the Federal Government*
- *FC = Candidate for listing by the Federal Government*

State: (CDFW)
- *SE = Listed as Endangered by the State of California*
- *ST = Listed as Threatened by the State of California*
- *SR = Listed as Rare by the State of California (plants only)*
- *CSC = California Species of Special Concern*
- *WL = Species on the CDFW Watch List*

CNPS: (California Native Plant Society)
- *Rank 1A = Plants presumed extinct in California*
- *Rank 1B = Plants rare, threatened, or endangered in California and elsewhere*
- *Rank 2 = Plants rare, threatened, or endangered in California but more common elsewhere*
- *Rank 3 = Need more information*
- *Rank 4 = Limited distribution – a watch list*
  - *0.1 = Seriously endangered in California*
  - *0.2 = Fairly endangered in California*
  - *0.3 = Not very endangered in California*
- *– = No Listing*

SOURCES: CDFW, 2015a and USFWS, 2015a.

Appendix E
Cultural Resources Data

ESA

Archaeological Testing Plan Outline
for the
Railyards Specific Plan Update

INTRODUCTION
- Description and Purpose of Project
- Regulatory Context
- Purpose and Application of Archaeological Testing Plan
- Agency Review
- Interested Party and Native American Consultation

PRE-FIELD RESEARCH
- Methods
  - Records Search
  - Historical Research
- Findings

TESTING PLAN
- Identification Plan and Methods
- Identification of Archaeological Resources
- Evaluation of Historic Properties
  - Prehistoric Archaeological Sites
- Historic Archaeological Sites
- Laboratory Methods
  - Discard Policy
  - Special Studies
- Procedures for Dealing with Human Remains
- Procedures for Archaeological Discoveries During Construction
- Curation
- Health and Safety Procedures

DATA RECOVERY/MTIGATION REQUIREMENTS
- Data Recovery Plan

Archaeological Monitoring Plan Outline
for the
Railyards Specific Plan Update

INTRODUCTION
- Description and Purpose of Project
- Regulatory Context
- Purpose and Application of Archaeological Monitoring Plan
- Agency Review
- Interested Party and Native American Consultation

EXPECTED ARCHAEOLOGICAL AND HISTORICAL RESOURCE TYPES
- Prehistoric Property Types
- Historic-Period Property Types
  - Domestic
  - Railroad Related
  - Other
- Isolated Burials and Features
- Isolated Artifacts
- Architecture
- Infrastructure
- Refuse

MONITORING PROCEDURES
- Locations
- Frequency
- Termination of Monitoring

DISCOVERY PROCEDURES
- Stop Work
- Notifications
- Resource Protection
- Procedures for Significance Determinations
- Procedures for Mitigation

Appendix F
Energy Data

ESA

RSPU Operational Energy Use

	Amount	Units	Electricity[1] Megawatt-hours/year	Natural Gas[1] Million Btu/year
Multi-family	6,000	ksf	21,000	47,611
City Park	30	acres	0	0
Office Buildings	4,543	ksf	65,960	47,611
Musiem	180	ksf	2,156	805
KPMC	1,228	ksf	25,135	65,403
Hotel	1,100	rooms	15,844	50,519
MLS Stadium	25,000	seats	6,141	12,219
Retail	905	ksf	10,800	4,045
Total			147,037	228,213

1. Electricity and natural gas consumption estimates were generated using CalEEMod 2013.2.2 model and the methodology described above. See Appendix Air for model outputs and additional details.

Source: ESA, 2016

RSPU Varient Operational Energy Use

	Amount	Units	Electricity[1] Megawatt-hours/year	Natural Gas[1] Million Btu/year
Multi-family	7,000	ksf	24,764	55,348
City Park	30	acres	0	0
Office Buildings	5,709	ksf	82,895	59,830
Musiem	180	ksf	2,156	805
Hotel	1,100	rooms	15,844	50,519
Retail	1,272	ksf	15,239	5,686
Total			140,898	172,188

1. Electricity and natural gas consumption estimates were generated using CalEEMod 2013.2.2 model and the methodology described above. See Appendix Air for model outputs and additional details.

Source: ESA, 2016

2007 RSP Operational Energy Use

	Amount	Units	Electricity[1] Megawatt-hours/year	Natural Gas[1] Million Btu/year
Multi-family	12,500	ksf	44,222	98,902
City Park	41.2	acres	0	0
Office Buildings	3,268	ksf	47,451	34,249
Musiem	188	ksf	2,252	840
Hotel	1,100	rooms	15,844	50,519
Retail	1,523	ksf	18,246	6,808
Total			128,015	191,318

1. Electricity and natural gas consumption estimates were generated using CalEEMod 2013.2.2 model and the methodology described above. See Appendix Air for model outputs and additional details.

Source: ESA, 2016

Construction Fuel Use

	Diesel Fuel (gallons)	Gasoline (gallons)
RSPU	23,570,857	1,413,221
RSPU Varient	17,873,291	1,067,127
KPMC	808,576	48,479
MLS Stadium	64,581	3,872
Outfall	1,123	67

Assumes worst-case construction fuel use based on the CalEEMod 2013.2.2 model and the methodology described above. See Appendix Air for model outputs and additional details.

Source: ESA, 2016

Operational Fuel Use

	Diesel Fuel (gallons)	Gasoline (gallons)
RSPU	248,114	27,981,778
RSPU Varient	188,140	21,218,000
KPMC	38,145	4,301,889
MLS Stadium	6,734	759,492

Assumes worst-case operational fuel use based on the CalEEMod 2013.2.2 model and the methodology described above. See Appendix Air for model outputs and additional details.

Source: ESA, 2016

Appendix G
Sacramento CAP Consistency Checklist

ESA

City of SACRAMENTO
Community Development

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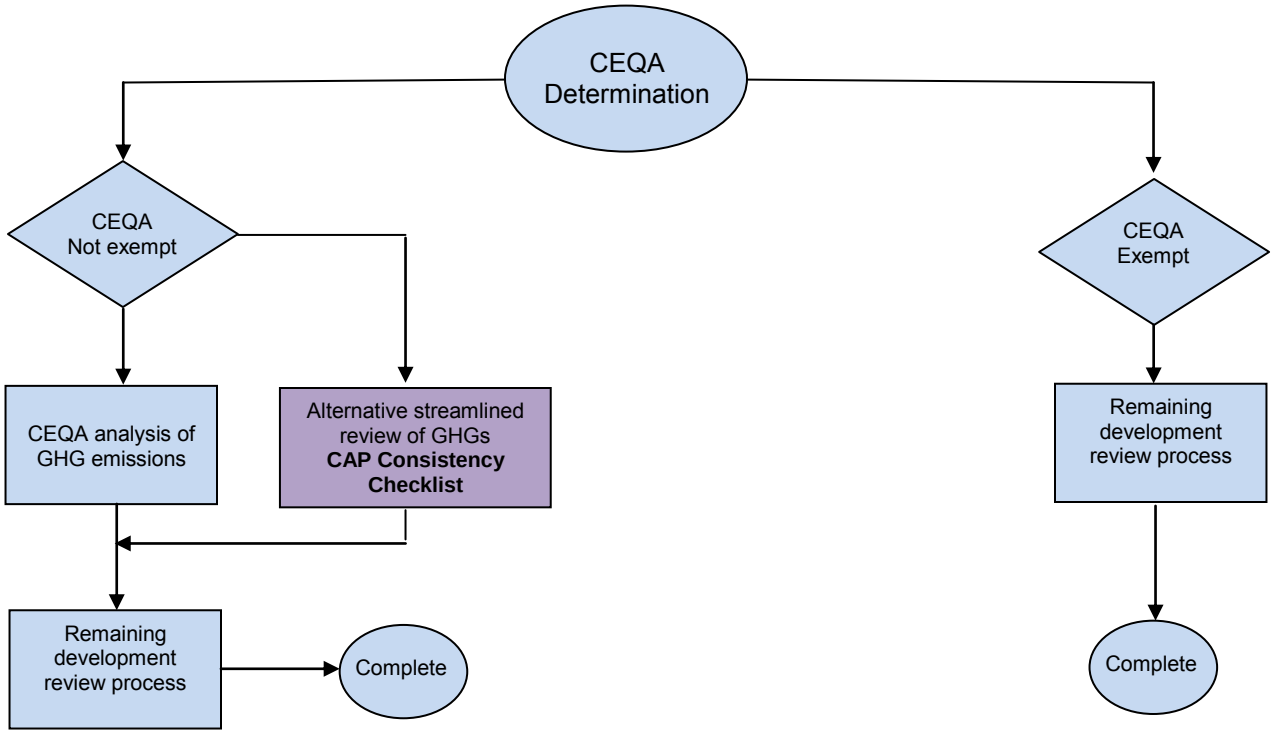
CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

The purpose of the Climate Action Plan Consistency Review Checklist (CAP Consistency Review Checklist) is to provide a streamlined review process for proposed new development projects which are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA)..

CEQA Guidelines require the analysis of greenhouse gas (GHG) emissions and potential climate change impacts from new development. The Sacramento Climate Action Plan qualifies under section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This allows projects that demonstrate consistency with the CAP to be eligible for this streamlining procedure. Projects that demonstrate consistency with the CAP and the Sacramento 2030 General Plan may be able to answer "No additional significant environmental effect" in the City's initial study checklist. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements. (See FAQ about the CAP Consistency Review Checklist for more details.)

The diagram below shows the context for the CAP Consistency Review Checklist within the planning review process framework.

Streamlined Review of GHG Emissions in Development Projects



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CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

Application Submittal Requirements

1. The CAP Consistency Review Checklist is required only for proposed new development projects which are subject to CEQA review (non-exempt projects)
2. If required, the CAP Consistency Review Checklist must be submitted in addition to the basic set of requirements set forth in the Universal Application and the Planning Application Submittal Matrix.
3. The applicant shall work with staff to meet the requirements of this checklist. These requirements will be reflected in the conditions of approval and/or mitigation measures.
4. All conditions of approval and mitigation measures from this checklist shall be shown on full-size sheets for building plan check submittals.

Application Information

Project Number: _____

Address of Property: _____

Was a special consultant retained to complete this checklist? ☐ Yes ☐ No. If yes, complete following

Consultant Name*: _____

Company: _____

Phone: _____ E-Mail: _____

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CAP Consistency Checklist Form for Projects that are Not Exempt from CEQA

Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No*
1. Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan, as it currently exists?		
Please explain how proposed project compares to 2035 General Plan with respect to density standards, FAR, land use and urban form. (See directions for filling out CAP Checklist)		

2. Would the project incorporate traffic calming measures? *(Examples of traffic calming measures include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.)*	Yes	NA
Please explain how the proposed project meets this requirement (list traffic calming measures). If "not applicable" (NA), explain why traffic calming measures were not required.		

*****If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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	Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	NA
3.	Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?		
	Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why this was not required.		

		Yes	NA
4.	Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?		
	Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why this was not required.		

*If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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	Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No*	NA
5.	For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)			

Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why this was not required. If project does not meet requirements, see DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST re: alternatives to meeting checklist requirements.

Attach a copy of the CalEEMod input and output. Record the model and version here _____.
Do NOT select the "use historical" box in CalEEMod for energy demand analysis related to this requirement.

		Yes	NA
6.	Would the project (if constructed on or after January 1, 2014) comply with minimum CALGreen Tier I water efficiency standards?		

Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why this was not required.

*If "No", equivalent or better GHG reduction must be demonstrated as part and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Signature: _____ Date: _____

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DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST

General Plan Consistency & Sustainable Land Use

1. **Is the proposed project substantially consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan?**

   Consistency with the General Plan land use and urban form designation, FAR and/or density standards is a key determining factor in whether or not the CAP Consistency Review procedure can be used. This is because future growth and development consistent with the General Plan was used to estimate business as usual emission forecasts, as well as emission reductions from actions that would be applicable to new development.

   Refer to the 2035 General Plan, Land Use and Urban Form Designations and Development Standards starting on page 2-29. If a project is not fully consistent with the General Plan, the project still may qualify for consistency with the CAP, but this determination will need to be closely coordinated with the City. The City will determine whether the proposed land uses under consideration could be found consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP.

Mobility

2. **Would the project incorporate traffic calming measures? (Applicable CAP Action: 2.1.1)**

   List the traffic calming measures that have been incorporated into the project. These may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.

   The project proponent and City staff should consult with staff in the Department of Public Works-Transportation Division to verify that traffic calming measures are adequate and in compliance with the City's Street Design Standards.

   If the proposed project does not include any roadway or facility improvements, traffic calming measures may not apply. For example, certain infill projects may not result in on-street or transportation facility improvements because sufficient infrastructure already exists.

3. **Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (Applicable CAP Action: 2.2.1)**

   List the pedestrian facilities and connections to public transportation that have been included in the proposed project on the Checklist. These may include, but are not limited to: sidewalks on both sides of streets, marked crosswalks, count-down signal timers, curb extensions, median islands, transit shelters, street lighting.

   The project proponent and City staff should consult with Department of Public Works-Transportation Division staff to verify that pedestrian facilities are consistent with the Pedestrian Master Plan. As in the previous example, if "not applicable", an explanation shall be documented in the Checklist. For example, certain infill projects may not require on-street or transportation facility improvements because sufficient infrastructure already exists.

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The "Pedestrian Review Process Guide" (Appendix A to the Master Plan) will be used to determine consistency, as follows:

- For typical infill development projects where existing streets will serve the site (no new streets are proposed): the level of pedestrian improvements necessary to determine Pedestrian Master Plan consistency will be measured according to the "Basic, Upgrade or Premium" categories defined in Appendix A to the Pedestrian Master Plan, which are based on project location, surrounding land uses, proximity to transit, etc. If the proposed project does not include the minimum level of improvements per the assigned category for the project's location, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.

- For new "greenfield" projects and/or larger infill development projects where new streets are proposed as part of the project, the following will apply:
    - "Basic, Upgrade or Premium" levels of improvement will be required based on the proposed project's location and context, where applicable, consistent with the criteria defined in the Master Plan. If the proposed project does not include the minimum level of improvements per the assigned category, the

      project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
    - The "Pedestrian Smart Growth Scorecard" (Appendix A to the Master Plan) will be required to be completed for the project, and a minimum score of 3 or better will need to be achieved. If the proposed project cannot achieve the minimum score, changes to the proposed project may be required, and/or the project may be required as a condition of approval to include certain improvements such that the average score will meet 3 or better. (Note: an Excel version of the Pedestrian Smart Growth Scorecard is available, to assist in automating the rating & scoring process)

4. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (Applicable CAP Action: 2.3.1)

List the bicycle facilities that are incorporated into the proposed project on the Checklist. These include, but are not limited to: Class I bike trails and Class II bike lanes connecting the project site to an existing bike network and transit stations, bike parking [bike racks, indoor secure bike parking, bike lockers], end-of-trip facilities at non-residential land uses [showers, lockers]).

The project proponent and City staff should consult with staff in the Transportation Division of the Department of Public Works to verify that such facilities are consistent with the Bikeway Master Plan and meet or exceed Zoning Code and CALGreen standards. Generally, the following guidelines will be used:

- If existing on-street and off-street bikeways are already present and determined to be consistent with the Bikeway Master Plan, no additional on-street bikeways will be required. Check the "not applicable" box if appropriate. However, on-site facilities shall still be required to meet or exceed minimum Zoning and CALGreen requirements.
- If not applicable, fully document the reasons why using the Checklist.

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- If on-street bicycle facilities are not present or are only partially consistent with the Master Plan, the project will be required as a condition of approval to construct or pay for its fair-share of on-street and/or off-street bikeways described in the Master Plan, in addition to meeting or exceeding minimum on-site facilities.
- In some cases, a combination of new or upgraded on-street and off-street bikeways may be used to determine consistency with the Master Plan, at the discretion of the Department of Public Works-Transportation Division staff.

Energy Efficiency and Renewable Energy

5. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., solar photovoltaic, solar water heating etc.) that would generate at least 15% of the project's total energy demand? (CAP Actions: 3.4.1 and 3.4.2)

For projects of the minimum size specified in this measure, a commitment in the project description or in a mitigation measure that the project shall generate a minimum of 15% of the project's energy demand on-site is sufficient to demonstrate consistency with this measure. However, the project conditions of approval or mitigation measures should specify the intended renewable energy technology to be used (e.g. solar photovoltaic, solar water heating, wind, etc.) and estimated size of the systems to meet project demand based on the project description.

"Total energy demand" refers to the energy (electricity and natural gas) consumed by the built environment (including HVAC systems, water heating systems, and lighting systems) as well as uses that are independent of the construction of buildings, such as office equipment and other plug-ins.

Applicants may estimate the total energy demand of their projects using California Emissions Estimator Model (CalEEMod 2013.2), the same software used to estimate greenhouse gas emissions. ***For CalEEMod estimates of energy demand to meet this specific requirement, the user should NOT select the "use historical" box, otherwise they will be "double-counting" emissions reductions that have already been counted***. CalEEMod outputs for electricity demand are provided in annual kWh, and natural gas demand is provided in annual kBTU.

The energy demand estimate by CalEEMod is based on two datasets:

- The California Commercial End Use Survey (CEUS);
- The Residential Appliance Saturation Survey (RASS

CalEEMod takes energy use intensity data (above) and forecasts energy demand based on climate zone, land use subtype (such as "hospital", "arena", or "apartments, mid rise"), building area, and the number of buildings or units. This is an appropriate level of analysis for use at the planning submittal stage, but it may not provide an accurate picture of actual project energy demand because it does not factor project specifics such as building design.

Therefore, the applicant is advised (but not required) to run a more comprehensive energy simulation once project-specific details are known: basic building design, square-footage, building envelope, lighting design (at least rudimentary), and the mechanical system (at least minimally zoned). Some of the energy simulation programs that are appropriate for this level of analysis include: DOE 2.2, Trace 700, and Energy Pro.

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The U.S. DOE maintains a list of energy simulation programs that are available.
http://apps1.eere.energy.gov/buildings/tools_directory/subjects.cfm/pagename=subjects/pagename_menu=whole_building_analysis/pagename_submenu=energy_simulation

The applicant may then revise the estimate and make a final determination regarding the size of the PV system that is required.

Substitutions: Projects may substitute a quantity of energy efficiency for renewable energy, as long as the substituted GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, substitutions must reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

- Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:
- In lieu of installing PV systems that would generate 15% of the projects total energy, the project may exceed energy efficiency standards of Title 24, part 6 of the California Building Code, such as building to CALGreen Tier 1 energy standards. (Residential projects shall exceed the 2013 Title 24 energy efficiency by a minimum of 10% and commercial projects shall exceed 2013 Title 24 energy efficiency by a minimum of 5%).

6. Would the project comply with minimum CALGreen Tier I water efficiency standards? (CAP Action: 5.1.1)

The California Green Building Standards Code (CALGreen) includes mandatory green building measures, as well as voluntary measures that local jurisdictions may choose to adopt to achieve higher performance tiers, at either Tier 1 or Tier 2 compliance levels. Sacramento has adopted Tier 1 Water Efficiency Standards to be required on or after January 1, 2014 Currently, in order to meet the Tier 1 Water Efficiency Standards, buildings are required to implement all mandatory water efficiency and conservation measures as well as certain Tier 1 specific measures that exceed minimum mandatory measures (e.g. 30% increase in indoor water efficiency). Specific Tier 1 provisions can be found in the CALGreen Code at http://www.bsc.ca.gov/Home/CALGreen.aspx.

The City recognizes that project construction details are often not known at the environmental review stage, and it may be premature for a project proponent to identify compliance with precise requirements of CALGreen. A condition of approval requiring the project to comply with minimum CALGreen Tier 1 water efficiency and conservation standards is sufficient to demonstrate consistency with this criterion.

Planning approval of your project will include the following condition:
Project must meet CALGreen Tier 1 water efficiency and conservation standards. Copies of the appropriate CalGreen checklist (see FAQ) shall be included on the full-size sheets for building plan check submittals.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

Appendix H
Hazards

Appendix H.1
Site Investigation and Remediation Bibliography

ESA

APPENDIX H.1
Sacramento Railyards Bibliography

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Appendix H.2

2015 Land Use Covenant / Soil and Groundwater Management Plan

ESA

RECORDING REQUESTED BY:

Downtown Railyard Venture, LLC
3140 Peacekeeper Way
McClellan, California 95652
Attention: General Counsel

WHEN RECORDED, MAIL TO:

Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95691
Attention: Charlie Ridenour, P.E.,
Branch Chief,
Cal Center Cleanup Program

Certified to be a True Copy of
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SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

LAND USE COVENANT AND AGREEMENT

ENVIRONMENTAL RESTRICTIONS

COUNTY OF SACRAMENTO, PORTIONS OF APNs 002-0010-049, 002-0010-052, 002-0010-056 and 002-0010-058
SPECIFIED STUDY AREAS WITHIN THE SACRAMENTO RAILYARDS
SACRAMENTO, SACRAMENTO COUNTY

This Covenant and Agreement ("Covenant") is made by and between Downtown Railyard Venture, LLC (the "Covenantor"), the current owner of property situated in City of Sacramento, County of Sacramento, State of California (the "Property"), and the Department of Toxic Substances Control (the "Department").

Pursuant to Civil Code section 1471, the Department has determined that this Covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials as defined in Health and Safety Code section 25260. The Covenantor and Department, collectively

referred to as the "Parties," hereby agree that, pursuant to Civil Code section 1471 and Health and Safety Code section 25355.5, the use of the Property be restricted as set forth in this Covenant; and the Parties further agree that the Covenant shall conform with the requirements of California Code of Regulations, title 22, section 67391.1.

To the extent that the Property is encumbered by and governed by the (i) Covenant and Agreement to Restrict Use of Property, dated June 22, 1990, and recorded in the Official Records of the County of Sacramento on June 28, 1990, in Book 900628, at Page 1056; (ii) Covenant and Agreement to Restrict Use of Property, dated May 6, 1994, and recorded in the Official Records of the County of Sacramento on May 19, 1994, in Book 940519, at Page 1437; and (iii) Covenant and Agreement to Restrict Use of Property, dated May 6, 1994, and recorded in the Official Records of the County of Sacramento on May 19, 1994, in Book 940519, at Page 1438 (collectively, including any amendments thereto, the "Prior Covenants"), the Department agrees that the Prior Covenants are terminated, extinguished and replaced in their entirety by this Covenant.

ARTICLE I
STATEMENT OF FACTS

1.01. Property Location. The Property that is subject to this Covenant totals approximately 158 acres, is more particularly described and depicted in the attached Exhibits "A" and "B". The Property is located within a portion of the former Southern Pacific Transportation Company ("SPTCo") Locomotive Works (known as the "Sacramento Railyards") and in the area now generally bounded by Jibboom Street to the west, the Water Treatment Plant and North B Street to the north, 12th Street to the east, and the Central Shops study area to the south, and in the area bounded by 5th Street to the west, the mainline track to the north, 7th Street to the east, and I Street to the south. The Property is also generally described as portions of Sacramento County Assessor's Parcel Numbers (APN) 002-0010-049, 002-0010-052, 002-0010-056 and 002-0010-058.

1.02. Property History. Historically, the past uses of the Property included operations of a sheet metal shop, warehouse, battery shop, forge and foundry activities, maintenance right of way, company equipment facilities and other industrial uses. In 1988, SPTCo and the Department entered into the Enforceable Agreement (such document, as amended is referred to as the "1988 Enforceable Agreement"). Union Pacific Railroad Company ("UPRR") entered into a merger with SPTCo in 1996 and acquired the Sacramento Railyards in 1998. Pursuant to the 1988 Enforceable Agreement, UPRR has investigated and remediated soil and groundwater contamination at the Sacramento Railyards. In addition, UPRR has certain continuing obligations under the 1988 Enforceable Agreement, including remediation of groundwater, soil vapor, and ongoing operation and maintenance responsibilities.

For the purposes of soil and groundwater remediation, the Sacramento Railyards was divided into study areas: the Lagoon, Northern Shops, Central Corridor, Car Shop Nine, Central Shops, Lagoon Northwest Corner, and Sacramento Station soil study areas, the Lagoon Groundwater study area, South Plume groundwater study area, and the Manufactured Gas Plant soil and groundwater study area. The Property is composed of the Lagoon, Northern Shops, Central Corridor, Car Shop Nine and a portion of Sacramento Station soil study areas, excluding the Manufactured Gas Plant study area, the 7th Street right-of-way, the 6th Street right-of-way, the Lagoon Northwest Corner study area and the Central Shops soil study area (see Exhibits A and B).

1.03. Soil Remediation of Property. The Property has been investigated and contaminated soil has been remediated under the Department's oversight. Soils contained volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and total petroleum hydrocarbons (TPH). The Department approved remedial action plans (individually a "RAP" and collectively "RAPs") for the Lagoon, Northern Shops, Central Corridor, and Car Shop Nine soil study areas in accordance with Health and Safety Code, division 20, chapter 6.8.

Soils in the Lagoon study area were remediated under a RAP approved on December 28, 1998 and an amended RAP approved by the Department on February 14, 2000. The selected remedial alternative includes excavation, chemical stabilization, and

off-site disposal. During implementation of the remedy, asbestos containing material was discovered and remediated.

Soils in the Northern Shops, Central Corridor, and Car Shop Nine study areas were remediated under a RAP approved by the Department on February 14, 2000. The selected remedial alternative includes excavation, chemical stabilization, landfarming, and off-site disposal. During implementation of the remedy, asbestos containing material was discovered and remediated. Due to inaccessibility, small areas within the Car Shop Nine study area, generally described on Exhibit "C", require further remediation in accordance with the RAP prior to excavation or initiation of any redevelopment activities in those areas.

Soils in the Sacramento Station study area were remediated under a RAP approved on December 7, 1989. The selected remedial alternative includes excavation, chemical stabilization, off-site disposal, cleaning of debris/ballast, and clean fill for backfill.

Soils in the Property were remediated to cleanup levels that, along with adherence to the restrictions in this Covenant, are protective of all populations for planned land uses, including, but not limited to, commercial, retail, industrial, hospital, school, daycare, mixed use, residential and park use. However, soils on the Property were not remediated to levels protective for unrestricted land use so the RAPs require a land use covenant, which is satisfied by this Covenant.

1.04. Groundwater Remediation of Property. Groundwater and soil vapor impacts from VOCs beneath the Property are in the process of being remediated by and are the continuing obligations of UPRR, and contamination in these media will be addressed by the final remedies of the Central Shops soil and South Plume groundwater RAP and the future Lagoon Groundwater study area RAP and the future Manufactured Gas Plant soil and groundwater study area RAP.

The Central Shops and South Plume RAP was approved by the Department on July 3, 2013. The selected remedial alternative for groundwater includes air injection, groundwater extraction and treatment, plume containment, soil vapor extraction remediation systems, and monitored natural attenuation. The Lagoon Groundwater RAP

will be drafted after the Health Risk Assessment and Feasibility Study are complete. Groundwater monitoring wells, groundwater and soil vapor extraction wells, and related groundwater and soil vapor extraction remediation systems (collectively, "Remediation Systems") have been and may continue to be installed within the Property by UPRR as part of remediation in the South Plume and Lagoon Groundwater study areas and the Manufactured Gas Plant soil and groundwater study area. As a result of the long -term remediation, UPRR will have ongoing operations and maintenance obligations within the Property with regard to those Remediation Systems.

The South Plume and Lagoon Groundwater contain similar contaminants of concern but are a result of different sources. Groundwater contamination associated with the South Plume and Lagoon Groundwater has been identified as containing, but not limited to, 1,1-dichloroethane (DCA), 1,2-dichloroethene (DCE), tetrachloroethene (PCE), trichloroethylene (TCE), and vinyl chloride.

The South Plume and Lagoon Groundwater Health Risk Assessments conclude that VOCs in groundwater and soil vapor beneath certain areas of the Property may pose an unacceptable human health risk to future users based on potential migration into indoor air and groundwater contact absent compliance with this Covenant. This Covenant requires that vapor mitigation measures approved by the Department be implemented pursuant to Section 4.05 for activities or land uses at the Property to maintain an acceptable risk to human health, safety and the environment. Initially, the boundaries of the requirement for vapor mitigation measures shall apply to the entire Property, also referred to as the "Vapor Mitigation Areas", subject to adjustment to these boundaries approved by the Department, as evidenced in writing from the Department, confirming that areas removed from the Vapor Mitigation Areas do not pose an unacceptable risk to human health and safety and the environment (the map(s) of and information relating to the existing Vapor Mitigations Areas shall be maintained by the Department).

1.05. Basis for Environmental Restrictions. As a result of the presence of hazardous substances, which are also hazardous materials as defined in Health and Safety Code section 25260, at the Property, the Department has concluded that it is

reasonably necessary to restrict the use of the Property in order to protect present or future human health or safety or the environment, and that this Covenant is required as part of the Department-approved remedy for the Property. The Department has also concluded that the Property, as remediated and when used in compliance with the Environmental Restrictions of this Covenant, does not present an unacceptable risk to present and future human health or safety or the environment.

1.06. Sacramento Railyards. Transfer and Notice of Other Restrictive Covenant. On September 15, 2015, Covenantor acquired fee simple title to a portion of the Sacramento Railyards. The Property is located within and is a portion of the Sacramento Railyards. Concurrent with such transfer, Covenantor and UPRR entered into the Amended and Restated Covenant and Agreement Regarding Restriction on Use of Property and Grant of Easement and Environmental Restriction ("Revised Covenant Regarding Restriction on Use") and recorded, as an encumbrance on the Sacramento Railyards, such document in the Official Records of Sacramento County, California. This Covenant is referenced in the Revised Covenant Regarding Restriction on Use, but is entirely independent from such document.

1.07. MOA. Covenantor and the Department shall enter into a Memorandum of Agreement ("MOA") within ninety (90) days following the execution of this Covenant. The provisions of the MOA shall, among other provisions, include (i) establishing a process for Owners (or an owners' association formed by Covenantor representing Owners and Occupants) paying the Department's costs, and monitoring, inspecting and reporting in compliance with this Covenant on behalf of Owners and Occupants, (ii) the Covenantor's preparation of Soil Management Plan ("SMP") approved in writing by the Department for use in accordance with Article IV, and (iii) upon Covenantor's request, the providing of available information by the Department relating to (a) soil vapor impacts (including applicable information subsequently required by the Department from UPRR under the 1988 Enforceable Agreement) and resulting adjustments to the Vapor Mitigation Areas based upon such information, as applicable, (b) any required handling, transportation and/or offsite disposal of soil disturbed (or adjacent to such disturbance) in

accordance with Section 4.02, and/or (c) any required Remediation Systems to supplement Vapor Mitigation required in accordance with Section 4.05.

ARTICLE II
DEFINITIONS

2.01. Department. "Department" means the California Department of Toxic Substances Control and includes its successor agencies, if any.

2.02. Environmental Restrictions. "Environmental Restrictions" means all protective provisions, covenants, restrictions, prohibitions, and terms and conditions as set forth in this Covenant.

2.03. Improvements. "Improvements" includes, but is not limited to: buildings, structures, roads, driveways, re-grading, landscaping, bodies of water, parks and playgrounds, parking areas, wells, pipelines, or other utilities, constructed or placed upon any portion of the Property.

2.04. Lease. "Lease" means lease, rental agreement, or any other document that creates a right to use or occupy any portion of the Property.

2.05. Native Soil. "Native Soil" means soil present at the Property at the time Covenantor acquired fee title to the Property. Such soil has been remediated as described in Section 1.03 and requires restrictions as described in Section 4.01 and 4.02.

2.06. Occupant. "Occupant" means Owners and any person or entity entitled by ownership, leasehold, or other legal relationship to the right to occupy any portion of the Property.

2.07. Owner. "Owner" means the Covenantor, and its successors in interest including heirs and assigns, who at any time hold title to all or any portion of the Property.

2.08. Property. "Property" is defined in the introductory paragraph of this Covenant. The Property is composed of the Lagoon, Northern Shops, Central Corridor, Car Shop Nine and a portion of the Sacramento Station study areas, excluding the Manufactured Gas Plant study area, the 7th Street right-of-way, the 6th Street right-of-way, the Central Shops study area, and the Lagoon Northwest Corner study area. The Property does not include all study areas of the Sacramento Railyards.

ARTICLE III
GENERAL PROVISIONS

3.01. Runs with the Land. This Covenant sets forth Environmental Restrictions that apply to and encumber the Property and every portion thereof no matter how it is improved, held, used, occupied, leased, sold, hypothecated, encumbered, or conveyed. This Covenant: (a) runs with the land pursuant to Health and Safety Code section 25355.5 and Civil Code section 1471; (b) inures to the benefit of and passes with each and every portion of the Property, (c) is for the benefit of, and is enforceable by the Department, and (d) is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof.

3.02. Binding upon Owners/Occupants. It is intended that this Covenant: (a) binds all Owners and Occupants of the Property, and their heirs, successors, and assignees; and (b) the agents, employees, and lessees of the Owners and Occupants and their heirs, successors, and assignees. Pursuant to Civil Code section 1471, all successive Owners and Occupants of the Property are expressly bound hereby for the benefit of the Department; this Covenant, however, is binding on all Owners and Occupants, and their respective successors and assigns, only during their respective periods of ownership or occupancy except that such Owners or Occupants shall continue to be liable after their ownership or occupancy for any violations of, or non-compliance with, the Environmental Restrictions of this Covenant or any acts committed or omissions made during their ownership or occupancy.

3.03. Incorporation into Deeds and Leases. This Covenant shall be incorporated by reference into each and every deed and Lease for any portion of the Property.

3.04. Conveyance of Property. The Owner shall provide written notice to the Department not later than thirty (30) days after any conveyance or receipt of any ownership interest in the Property (excluding Leases, and mortgages, liens, and other non-possessory encumbrances). The written notice shall include the name and mailing address of the new Owner of the applicable portion of the Property and shall reference the site name and site code as listed on page one of this Covenant. The notice shall also include the Assessor's Parcel Number(s) [APNs] as noted on page one. If the new Owner's portion of the Property has been assigned a different APN, each such APN that covers the new Owner's portion of the Property must be provided. The Department shall not, by reason of this Covenant, have authority to approve, disapprove, or otherwise affect a proposed conveyance, except as otherwise provided by law or by administrative order.

3.05. Costs of Administering the Covenant to be paid by Owner. The Department will incur administrative costs associated with this Covenant. Therefore, the Covenantor hereby covenants for the Covenantor and for all subsequent Owners that, pursuant to California Code of Regulations, title 22, section 67391.1(h), the Owner agrees to pay the Department's costs in administering, implementing, and enforcing this Covenant. One purpose of the MOA is to provide a consolidated mechanism for Owner to pay the administrative costs the Department will incur. If, however, payments are not made pursuant to the MOA, the Owner will be responsible for the Department's costs.

ARTICLE IV
RESTRICTIONS AND REQUIREMENTS

4.01. Prohibited Use.

If Improvements to be constructed on a discrete parcel(s) within the Property ("Improved Parcel") for any use, which allowed uses include, but are not limited to, commercial, retail, industrial, hospital, school, daycare, mixed use, residential or park use, include areas in which direct human exposure to Native Soil remains possible at the Improved Parcel following the completion of such construction (e.g. yards, open space or landscaped areas), the Owner or Occupant of the Improved Parcel shall install, keep and maintain a top layer of environmentally compliant soil of a thickness and composition to prevent exposure to such Native Soil which is reasonably satisfactory to the Department as being protective of human health, and the environment ("Compliant Soil Layer") (such criteria may be included in a SMP) approved in writing by the Department or determined by the Department on an individual Improved Parcel basis). Excepting routine maintenance upon the Compliant Soil Layer (e.g. replacement of irrigation, vegetation planting and replacement, or utilities maintenance), the Compliant Soil Layer shall not be disturbed unless the Owner or Occupant of the subject Improved Parcel demonstrates to the reasonable satisfaction of the Department that the disturbance of the Compliant Soil Layer is (1) necessary to the present or modified use of the Improved Parcel and can be accomplished in a manner that will not materially increase exposure to the Native Soil as compared to the existing Compliant Soil Layer or (2) is otherwise performed and completed in a manner the Department approves as being protective of human health and the environment. The Department may waive the requirement of a Compliant Soil Layer on a particular Improved Parcel if it is demonstrated to the Department's satisfaction, as evidenced in writing from the Department, that the Native Soil will not pose an unacceptable risk to human health and safety and the environment.

4.02. Soil Management.

(a) No activities that will disturb the soil (e.g., excavation, grading, removal, trenching, earth movement, mining, or drilling) shall be allowed on the Property without a SMP approved in writing by the Department.

(b) Any soils brought to the surface (including but not limited to by grading, excavation, trenching or backfilling) shall be managed in compliance with all applicable provisions of state and federal law and a SMP approved in writing by the Department.

4.03. Prohibited Activities. The following activities shall not be conducted at the Property:

(a) Drilling for water, oil, or gas without prior written approval by the Department.

(b) Extraction of groundwater except as approved in advance in writing by the Department in a groundwater management plan.

4.04. Non-Interference with Remediation Systems. No disruption of any Remediation Systems, including all-associated equipment shall be permitted without prior written approval by the Department. The Department shall reasonably consider the location and placement of new Remediation Systems to avoid unreasonable interference with Improvements.

4.05. Vapor Intrusion Mitigation Management. Any enclosed building or enclosed structure (including tunnels) or utility corridors to be constructed within the Vapor Mitigation Areas must be designed and constructed to include Vapor Mitigation

(as hereinafter defined) unless such area is exempted from such requirement by the Department. If Vapor Mitigation is required by the Department, the Covenantor or subsequent Owner shall certify in writing to the Department within thirty (30) days following completion of such construction that the required Vapor Mitigation was incorporated into such construction in accordance with the requirements of the Department.

"Vapor Mitigation" means design features within an enclosed building or enclosed structure (including tunnels) or utility corridors to be constructed, separate from the Remediation Systems, that prevent vapor intrusion within such building or structure at a level that poses an unacceptable risk to human health and the environment as determined by the Department. Vapor Mitigation may function independently or may be installed to work in coordination with existing or new Remediation Systems within or adjacent to the Vapor Mitigation Areas). Vapor Mitigation is not required if it is demonstrated to the Department's satisfaction before construction begins, as evidenced in writing from the Department, that vapor intrusion will not pose an unacceptable risk to human health and safety and the environment.

4.06. Access for Department. The Department shall have a reasonable right of entry and access to the Property for inspection, monitoring, and other activities as deemed necessary by the Department in order to protect the public health or safety, or the environment.

4.07 Access for Implementing Operation and Maintenance. The entity or person responsible for implementing operation and maintenance activities, if any, shall have a reasonable right of entry and access to the Property for the purpose of implementing such operation and maintenance activities until the Department determines that no further operation and maintenance activity is required.

4.08. Inspection and Reporting Requirements. One purpose of the MOA is to address all monitoring, inspection and reporting requirements required by this Section. 4.08. Therefore, it is understood that the reporting requirements of this Section 4.08 will

be met, as long as the MOA is complied with. If reporting requirements are not met through the MOA, then each Owner shall conduct an annual inspection of its portion of the Property verifying compliance with this Covenant, and shall submit an annual written inspection report to the Department for its approval by March 15th of each year. The annual inspection report must include the date(s), time(s), and names of those who conducted the inspection and reviewed the annual inspection report. It also shall describe how the observations were performed that were the basis for the statements and conclusions in the annual inspection report (e.g., drive by, fly over, walk in, etc.). If violations are noted, the annual inspection report must detail the steps taken to return to compliance. If an Owner identifies any violations of this Covenant during the annual inspections or at any other time, the Owner must within ten (10) calendar days of identifying the violation: determine the identity of the party in violation, send a letter advising the party of the violation of the Covenant, and demand that the violation cease immediately. Additionally, copies of any correspondence related to a violation of this Covenant shall be sent to the Department within ten (10) calendar days of its original transmission.

4.09. Signage Requirement. For those areas of the Property that remain unimproved (Improvements have not been constructed) and at which disturbance of Native Soil remains possible, the Owner(s) of such unimproved portions of the Property shall post and maintain signage which is reasonably adequate to provide notice of (i) no trespassing, and (ii) the prohibition of disturbing such soil (e.g., excavation, grading, removal, trenching, earth movement, mining, or drilling) in such areas, except as permitted under Section 4.02.

ARTICLE V
ENFORCEMENT

5.01. Enforcement. Failure of the Owner or Occupant to comply with this Covenant shall be grounds for the Department to require modification or removal of any Improvements constructed or placed upon any portion of the Property in violation of this

Covenant. Violation of this Covenant, including such as failure to submit (including submission of any false statement) a record or report to the Department, shall be grounds for the Department to pursue administrative, civil, or criminal actions, as provided by law.

ARTICLE VI
VARIANCE, REMOVAL AND TERM

6.01. Variance from Environmental Restrictions. Any person may apply to the Department for a written variance from any of the Environmental Restrictions imposed by this Covenant. Such application shall be made in accordance with Health and Safety Code section 25223.

6.02 Removal of Environmental Restrictions. Any person may apply to the Department to remove any of the Environmental Restrictions imposed by this Covenant or terminate the Covenant in its entirety. Such application shall be made in accordance with Health and Safety Code section 25224.

6.03 Term. Unless ended in accordance with paragraph 6.02, by law, or by the Department in the exercise of its discretion, this Covenant shall continue in effect in perpetuity.

ARTICLE VII
MISCELLANEOUS

7.01. No Dedication Intended. Nothing set forth in this Covenant shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property, or any portion thereof, to the general public or anyone else for any purpose whatsoever.

7.02. Recordation. The Covenantor shall record this Covenant, with all referenced Exhibits, in the County of Sacramento within ten (10) calendar days of the

Covenantor's receipt of a fully executed original.

7.03. Notices. Whenever any person gives or serves any notice ("Notice" as used herein includes any demand or other communication with respect to this Covenant), each such Notice shall be in writing and shall be deemed effective: (a) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served, or (b) five (5) business days after deposit in the mail, if mailed by United States mail, postage paid, certified, return receipt requested:

To Covenantor:

Downtown Railyard Venture, LLC
3140 Peacekeeper Way
McClellan, California 95652
Attention: General Counsel

and

To Department:

Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826
Attention: Sacramento Railyards
Program Manager
Cal Center Cleanup Program

Any party may change its address or the individual to whose attention a Notice is to be sent by giving written Notice in compliance with this paragraph.

7.04. Partial Invalidity. If this Covenant or any of its terms are determined by a court of competent jurisdiction to be invalid for any reason, the surviving portions of this Covenant shall remain in full force and effect as if such portion found invalid had not been included herein.

7.05. Statutory References. All statutory references include successor provisions.

7.06 Incorporation of Exhibits. All attachments and exhibits to this Covenant are incorporated herein by reference.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the Parties execute this Covenant.

Covenantor:

Downtown Railyard Venture, LLC,
a Delaware limited liability company

By: LDK Railyard, LLC, a California limited liability company
Its: Manager

By LDK Ventures, LLC, a California limited liability company
Its: Member

By: _____
Larry D. Kelley, Sr.
Its: Manager
Date: 8/28/15

Department:

Department of Toxic Substances Control

By: _____
Charlie Ridenour, P.E.
Title: Branch Chief, Clean-up Program, Sacramento Office
Date: 8/28/2015

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT Civil Code §1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
COUNTY OF Sacramento)

On August 28. 2015 (Date), before me, Beverly M. Rager, Notary Public (Name and Title of Officer (e.g. "Jane Doe, Notary Public")),

personally appeared Charlie Ridenour

(Name(s) of Signer(s)),

who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

BEVERLY M. RAGER
Commission # 2117826
Notary Public - California
Sacramento County
My Comm. Expires Jul 28, 2019

Beverly M Rager
Signature of Notary Public

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

CAPACITY(IES) CLAIMED BY SIGNER(S)
Signer's Name: Charlie Ridenour

- ☐ Individual
- ☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☑ Other: Branch Chief

Signer is Representing:
Name of Person(s) or Entity(ies)
Department of Toxic Substance Control

DESCRIPTION OF ATTACHED DOCUMENT

Land use Covenant and Agreement
Title or Type of Document

Number of Pages

August 28. 2015
Date of Document

Larry Kelley
Signer(s) Other Than Named Above

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT Civil Code §1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
COUNTY OF Sacramento)

On August 28, 2019 (Date), before me, Beverly M. Rager, Notary Public (Name and Title of Officer (e.g. "Jane Doe, Notary Public")

personally appeared Larry D. Kelley, Sr.

(Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Beverly M Rager
Signature of Notary Public

BEVERLY M. RAGER
Commission # 2117826
Notary Public - California
Sacramento County
My Comm. Expires Jul 28, 2019

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

CAPACITY(IES) CLAIMED BY SIGNER(S)
Signer's Name: Larry

- ☐ Individual
- ☑ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☑ Other: Manager

Signer is Representing:
Name of Person(s) or Entity(ies)
Downtown Railyard Venture, LLC

DESCRIPTION OF ATTACHED DOCUMENT

Land use Covenant and Agreement
Title or Type of Document

Number of Pages

August 28, 2015
Date of Document

Charlie Ridenour
Signer(s) Other Than Named Above

Exhibit A

Description of Property

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL ONE

ALL THAT CERTAIN REAL PROPERTY IN THE CITY AND COUNTY OF SACRAMENTO, STATE OF CALIFORNIA AND BEING A PORTION OF THAT CERTAIN 203.161 ACRE TRACT OF LAND SHOWN AND DELINEATED ON RECORD OF SURVEY FILED IN BOOK 51 OF SURVEYS AT PAGE 10 OF OFFICIAL RECORDS OF SACRAMENTO COUNTY AND A PORTION OF PARCEL A AS SAID PARCEL IS SHOWN AND SO DESIGNATED ON PARCEL MAP FILED IN BOOK 120 OF PARCEL MAPS, AT PAGE 10 OF SAID OFFICIAL RECORDS BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE WESTERLY LINE OF 6TH STREET (80 FEET WIDE) AND THE NORTHERLY LINE OF H STREET (80 FEET WIDE);

THENCE ALONG SAID WESTERLY LINE OF 6TH STREET NORTH 18° 26' 23" EAST, 15.24 FEET;

THENCE LEAVING SAID WESTERLY LINE NORTH 44° 14' 53" EAST, 183.76 FEET TO THE POINT OF INTERSECTION OF THE EASTERLY

LINE OF SAID 6TH STREET AND THE NORTHERLY LINE OF THE ALLEY (20 FEET WIDE) IN THE BLOCK BOUNDED BY G, H, 6TH AND 7TH STREETS THENCE ALONG THE NORTHERLY LINE OF SAID ALLEY SOUTH 71° 37' 21" EAST, 319.58 FEET TO ITS INTERSECTION WITH THE WESTERLY LINE OF 7TH STREET (80 FEET WIDE);

THENCE ALONG SAID WESTERLY LINE OF 7TH STREET NORTH 18° 19' 02" EAST, 1164.13 FEET TO A POINT THEREON LOCATED 100 FEET SOUTHERLY FROM THE NORTHERLY LINE OF THE ALLEY BETWEEN D, E, 6TH AND 7TH STREETS, SAID POINT BEING THE POINT OF BEGINNING ON THE STREET VACATION BY SACRAMENTO CITY ORDINANCE NO. 214, FOURTH SERIES;

THENCE NORTH 40° 07' 56" EAST, 34.84 FEET TO A POINT ON THE NORTHWESTERLY LINE OF THE LAND CONVEYED TO THE CITY OF SACRAMENTO BY DEED RECORDED IN BOOK 8512-31 AT PAGE 1928 OFFICIAL RECORDS OF SAID COUNTY;

THENCE NORTHWESTERLY ALONG SAID NORTHWESTERLY LINE 72.50 FEET THROUGH A CENTRAL ANGLE OF 11° 58' 18" SAID NORTHWESTERLY LINE BEING THE ARC OF A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 347.00 FEET TO WHICH A RADIAL LINE BEARS NORTH 63° 01' 57" WEST;

THENCE LEAVING SAID NORTHWESTERLY LINE SOUTH 79° 25' 14" WEST, 190.28 FEET;

THENCE SOUTH 49° 52' 44" WEST, 326.94 FEET;

THENCE 444.33 FEET ALONG THE ARC OF AN 843.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 30°11' 59";

THENCE SOUTH 80°04'43" WEST, 17.41 FEET;

THENCE SOUTH 33° 41' 42" WEST, 107.73 FEET;

THENCE SOUTH 80° 04' 43" WEST, 268.35 FEET;

THENCE SOUTH 18° 24' 47" WEST, 490.56 FEET;

THENCE SOUTH 26° 44' 53" EAST, 62.45 FEET;

THENCE SOUTH 71° 37' 38" EAST, 57.14 FEET TO THE INTERSECTION OF THE NORTHERLY LINE OF "H" STREET (80 FEET WIDE) WITH THE WESTERLY LINE OF 5TH STREET (80 FEET WIDE);

THENCE ALONG THE NORTHERLY LINE OF "H" STREET SOUTH 71° 33' 22" EAST, 405.74 FEET TO THE POINT OF BEGINNING.

NOT A PART #1

EXCEPTING THEREFROM ALL THAT PORTION DEEDED TO THE CITY OF SACRAMENTO BY GRANT DEED RECORDED APRIL 26, 2012 IN BOOK 20120426 PAGE 1168, OFFICIAL RECORDS.

EXHIBIT "A"
LEGAL DESCRIPTION

NOT A PART #2

ALSO EXCEPTING THEREFROM ALL THAT CERTAIN PROPERTY DESCRIBED IN THAT GRANT DEED TO THE STATE OF CALIFORNIA RECORDED APRIL 22, 2015, IN BOOK 20150422, PAGE 1067, OF OFFICIAL RECORDS.

CONTAINING 14.49 ACRES, MORE OR LESS.

PARCEL TWO:

ALL THAT CERTAIN REAL PROPERTY SITUATE IN THE CITY AND COUNTY OF SACRAMENTO, STATE OF CALIFORNIA AND BEING A PORTION OF PARCEL A, AS SAID PARCEL IS SHOWN AND SO DESIGNATED ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN BOOK 120 OF PARCEL MAPS, AT PAGE 10, OFFICIAL RECORDS OF SACRAMENTO COUNTY, AND THOSE LANDS SHOWN ON THAT CERTAIN RECORD OF SURVEY FILED FOR RECORD IN BOOK 51 OF SURVEYS, AT PAGE 10 OF SAID OFFICIAL RECORDS, AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER PARCEL B OF CERTIFICATE OF COMPLIANCE RECORDED DECEMBER 28, 2006, IN BOOK 20061228, PAGE 1681 OFFICIAL RECORDS OF SAID COUNTY, SAID NORTHEASTERLY CORNER BEING ON THE WESTERLY LINE OF 12TH STREET;

THENCE ALONG SAID WESTERLY LINE OF 12TH STREET NORTH 18° 26' 40" EAST A DISTANCE OF 344.37 FEET TO THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO STEEL MILL SUPPLY COMPANY, INC. BY DEED RECORDED IN BOOK 955 AT PAGE 427 OFFICIAL RECORDS OF SAID COUNTY;

THENCE ALONG THE BOUNDARY OF THE LAND SO CONVEYED, NORTH 71° 38' 25" WEST, 610.46 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, NORTH 38° 53' 55" WEST, 18.80 FEET TO THE CENTERLINE OF A STREET AND THE MOST EASTERLY CORNER OF THAT CERTAIN

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL OF LAND CONVEYED TO CENTRAL PACIFIC RAILWAY CO. BY DEED RECORDED IN BOOK 955 AT PAGE 428 OFFICIAL RECORDS OF SAID COUNTY;

THENCE CONTINUING NORTH 38° 53' 55" WEST, ALONG THE NORTHEASTERLY LINE OF THE LAND SO CONVEYED 166.40 FEET TO THE MOST NORTHERLY CORNER THEREOF, SAID CORNER IS LOCATED ON THE CENTERLINE OF 10TH STREET;

THENCE NORTH 18° 22' 57" EAST, 37.18 FEET ALONG SAID CENTERLINE OF 10TH STREET TO A POINT BEING THE SOUTHEAST CORNER OF PARCEL NO. 2 OF THOSE CERTAIN PARCELS OF LAND CONVEYED TO THE RANSOM COMPANY BY DEED RECORDED IN BOOK 991 AT PAGE 486 AND 487 OF OFFICIAL RECORDS OF SAID COUNTY;

THENCE NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 372.24 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS NORTH 51° 22'21" WEST, 54.17 FEET; THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 47° 12' 00" WEST, TANGENT TO SAID CURVE 20.41 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 371.79 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS NORTH 43° 54' 37" WEST, 42.67 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 40°37' 14" WEST, TANGENT TO SAID CURVE, 14.72 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 39°01' 43" WEST, 10.00 FEET;

THENCE CONTINUING NORTHWESTERLY, ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 37°25' 11" WEST, 14.72 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 371.79 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS NORTH 34° 07' 48" WEST, 42.67 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 30°50' 25" WEST, TANGENT TO THE CURVE, 55.84 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 296.57 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS NORTH 34° 55' 23" WEST, 42.23 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 39°00' 21" WEST, TANGENT TO SAID CURVE, 61.00 FEET;

THENCE CONTINUING NORTHWESTERLY ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 296.57 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS 46° 47' 12" WEST, 80.30 FEET;

THENCE CONTINUING ALONG THE SOUTHWESTERLY BOUNDARY OF THE PARCELS OF LAND SO CONVEYED, NORTH 47° 21' 51" WEST, 75.74 FEET TO THE INTERSECTION OF THE WESTERLY LINE OF 9TH STREET AND THE SOUTHERLY LINE OF NORTH B STREET (80 FEET WIDE);

THENCE NORTH 56° 43' 10" WEST, 155.24 FEET TO A POINT ON THE CENTERLINE OF SAID B STREET;

THENCE NORTH 71° 39' 03" WEST, 1060.32 FEET ALONG SAID CENTERLINE OF NORTH B STREET;

THENCE LEAVING SAID CENTERLINE NORTH 18° 15' 57" EAST, 40.00 FEET TO THE NORTHERLY LINE OF SAID NORTH B STREET;

THENCE NORTH 71° 39' 03" WEST, 470.45 FEET ALONG SAID NORTHERLY LINE OF NORTH B STREET, AND THE NORTHERLY LINE OF THAT CERTAIN GRANT OF EASEMENT TO THE CITY OF SACRAMENTO RECORDED IN BOOK 655 OF DEEDS AT PAGE 476, TO THE NORTHWESTERLY LINE OF SAID EASEMENT;

THENCE SOUTH 21°10'36" WEST 96.89 FEET;

THENCE SOUTH 83° 22' 17" WEST, ALONG THE NORTHERLY LINE OF THE LAND SO CONVEYED, 808.60 FEET TO THE MOST EASTERLY CORNER OF THAT CERTAIN TRIANGULAR STRIP OF LAND CONVEYED TO THE CENTRAL PACIFIC RAILWAY COMPANY AS PARCEL NO. 2 BY DEED RECORDED IN BOOK 655 OF DEEDS AT PAGE 489;

THENCE ALONG THE BOUNDARY OF SAID PARCEL NO. 2, SOUTH 89° 35' 01" WEST, 488.40 FEET;

THENCE SOUTH 00° 24' 59" EAST, 347.74 FEET CONTINUING ALONG THE BOUNDARY OF SAID PARCEL NO. 2 AND THE BOUNDARY OF THE LAND CONVEYED TO THE CITY OF SACRAMENTO BY DEED RECORDED IN BOOK 655 OF DEEDS AT PAGE 478;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 72° 22' 30" WEST, 192.56 FEET TO THE SOUTHWEST CORNER THEREOF, SAID POINT ALSO BEING SITUATE ON THE NORTHERLY LINE OF THE LAND CONVEYED TO THE CENTRAL PACIFIC RAILWAY COMPANY BE DEED RECORDED IN BOOK 372 AT PAGE 71;

THENCE ALONG SAID BOUNDARY, SOUTH 83° 14' 45" WEST, 849.81 FEET TO THE EASTERLY LINE OF THE LAND CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED IN BOOK 6907-23 AT PAGE 62 OFFICIAL RECORDS OF SAID COUNTY;

THENCE ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 02° 54' 31" WEST, 106.95 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 04° 20' 18" EAST, 258.98 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTHWESTERLY ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 200.00 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS SOUTH 21° 09' 08" WEST, 172.14 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 83° 57' 15" WEST, 225.06 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTHERLY ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 980.00 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS SOUTH 17° 04' 57" EAST, 41.08 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 18° 17' 00" EAST, TANGENT TO SAID CURVE, 127.28 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTHERLY ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 520.00 FEET, THE CHORD SUBTENDED BY SAID ARC BEARS SOUTH 08° 28' 21" EAST, 177.21 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, NORTH 88° 39' 43" WEST, RADIAL TO SAID CURVE, 34.33 FEET TO AN ANGLE POINT IN THE BOUNDARY OF THE LAND CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED IN BOOK 8003-26 AT PAGE 478 OFFICIAL RECORDS OF SAID COUNTY;

THENCE ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 01° 25' 08" WEST, 204.49 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 01° 20' 08" WEST, 567.62 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 22° 17' 45" WEST, 242.66 FEET;

THENCE CONTINUING ALONG THE BOUNDARY OF THE LAND SO CONVEYED, SOUTH 13° 05' 18" WEST, 58.10 FEET TO A LINE PARALLEL WITH AND DISTANT 25 FEET NORTHERLY, MEASURED AT RIGHT ANGLES, FROM THE CENTERLINE OF SOUTHERN PACIFIC TRANSPORTATION COMPANY'S WESTWARD MAIN TRACT (SACRAMENTO TO OAKLAND) ALSO BEING A POINT ON THE NORTHERLY BOUNDARY LINE OF SAID CERTIFICATE OF COMPLIANCE RECORDED DECEMBER 28, 2006;

THENCE ALONG SAID NORTHERLY BOUNDARY LINE OF SAID CERTIFICATE OF COMPLIANCE SOUTH 71° 34' 07" EAST, 71.56 FEET;

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE 439.27 FEET ALONG THE ARC OF A 750.00 FOOT RADIUS TANGENT CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 33° 33' 28";

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE NORTH 74° 52' 25" EAST, 583.72 FEET;

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE 136.27 FEET ALONG THE ARC OF A 1500.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 05° 12' 18";

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE NORTH 80° 04' 43" EAST, 1035.82 FEET;

THENCE CONTINUING ALONG THE NORTHERLY BOUNDARY LINE 337.93 FEET ALONG THE ARC OF AN 825.00 FOOT RADIUS TANGENT CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 23° 28' 09";

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE NORTH 56° 36' 34" EAST, 416.15 FEET;

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE 192.85 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 22° 05' 55";

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE NORTH 78° 42' 29" EAST, 1371.35 FEET;

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE 711.37 FEET ALONG THE ARC OF A 1370.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 29° 45' 03"

THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY LINE SOUTH 71° 32' 29" EAST, 93.07 FEET TO THE POINT OF BEGINNING.

NOT A PART #4

EXCEPTING THEREFROM THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE NORTHERLY BOUNDARY LINE OF SAID CERTIFICATE OF COMPLIANCE RECORDED DECEMBER 28, 2006, SAID POINT BEING THE SOUTHWESTERLY TERMINUS OF THAT CERTAIN COURSE HEREINABOVE DESCRIBED AS "NORTH 80°04'43" EAST 1035.82 FEET";

THENCE ALONG SAID NORTHERLY BOUNDARY AND SAID COURSE NORTH 80°04'43" EAST 961.33 FEET;

THENCE LEAVING SAID NORTHERLY BOUNDARY NORTH 09°56'42" WEST 551.08 FEET;

THENCE NORTH 71°01'28" WEST 117.98 FEET TO THE BEGINNING OF A 1,500.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY;

THENCE WESTERLY AND SOUTHWESTERLY ALONG SAID CURVE, 1,622.79 FEET THROUGH A CENTRAL ANGLE OF 61°59'09";

THENCE SOUTH 46°59'22" WEST 18.91 FEET TO THE BEGINNING OF A 500.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY;

THENCE SOUTHWESTERLY ALONG SAID CURVE, 59.06 FEET THROUGH A CENTRAL ANGLE OF 06°46'04";

THENCE SOUTH 18°41'13" EAST 335.62 FEET TO THE BEGINNING OF A NON-TANGENT 1,216.25 FOOT RADIUS CURVE CONCAVE SOUTHERLY, A RADIAL TO WHICH BEARS NORTH 04°32'00" WEST;

THENCE EASTERLY ALONG SAID CURVE, 581.74 FEET THROUGH A CENTRAL ANGLE OF 27°24'17" TO THE LAST SAID NORTHERLY BOUNDARY;

THENCE ALONG LAST SAID NORTHERLY BOUNDARY NORTH 74°52'25" EAST 21.41 FEET TO THE BEGINNING OF A 1,500.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY;

THENCE EASTERLY ALONG SAID CURVE, 136.27 FEET THROUGH A CENTRAL ANGLE OF 05°12'18" TO THE POINT OF COMMENCEMENT.

NOT A PART #5

ALSO EXCEPTING THEREFROM THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE BOUNDARY OF THE LAND CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED IN BOOK 8003-26 AT PAGE 478 OFFICIAL RECORDS OF SAID COUNTY, DISTANT THEREON NORTH 01°20'08" EAST 258.95 FEET FROM THE SOUTHERLY TERMINUS OF THAT COURSE HEREINABOVE DESCRIBED AS "SOUTH 01°20'08" WEST 567.62 FEET";

THENCE LEAVING SAID BOUNDARY SOUTH 88°39'52" EAST 124.84 FEET TO THE BEGINNING OF A 100.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY ALONG SAID CURVE, 157.08 FEET THROUGH A CENTRAL ANGLE OF 90°00'00";

THENCE NORTH 01°20'08" EAST 114.06 FEET TO THE BEGINNING OF A 25.00 FOOT RADIUS CURVE CONCAVE EASTERLY;

THENCE NORTHERLY ALONG SAID CURVE, 10.46 FEET THROUGH A CENTRAL ANGLE OF 23°58'13";

THENCE NORTH 25°18'21" EAST 6.40 FEET TO THE BEGINNING OF A 15.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 25.47 FEET THROUGH A CENTRAL ANGLE OF 97°16'56";

THENCE NORTH 71°58'35" WEST 64.11 FEET TO THE BEGINNING OF A 25.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY;

THENCE WESTERLY ALONG SAID CURVE, 22.10 FEET THROUGH A CENTRAL ANGLE OF 50°38'34";

THENCE SOUTH 57°22'51" WEST 6.94 FEET TO THE BEGINNING OF A 25.00 FOOT RADIUS CURVE CONCAVE NORTHERLY;

THENCE WESTERLY ALONG SAID CURVE, 14.82 FEET THROUGH A CENTRAL ANGLE OF 33°57'17";

THENCE NORTH 88°39'52" WEST 117.93 FEET TO THE SAID BOUNDARY OF THE LAND SO CONVEYED;

THENCE ALONG SAID BOUNDARY SOUTH 01°20'08" WEST 257.59 FEET TO THE POINT OF COMMENCEMENT.

NOT A PART #6

ALSO EXCEPTING THEREFROM THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST EASTERLY CORNER OF SAID PARCEL NO. 2 PER DEED RECORDED IN BOOK 655 OF DEEDS AT PAGE 489, OFFICAL RECORDS;

THENCE ALONG THE BOUNDARY OF SAID PARCEL NO. 2, SOUTH 89°35'01" WEST 488.40 FEET;

THENCE CONTINUING ALONG SAID BOUNDARY SOUTH 00°24'59" EAST 347.74 FEET;

THENCE LEAVING SAID BOUNDARY SOUTH 72°22'30" WEST 122.92 FEET;

THENCE SOUTH 00°24'58" EAST 26.76 FEET TO THE BEGINNING OF A NON-TANGENT 585.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY, A RADIAL TO WHICH BEARS NORTH 03°12'17" EAST;

THENCE EASTERLY ALONG SAID CURVE, 97.48 FEET THROUGH A CENTRAL ANGLE OF 09°32'50" TO THE BEGINNING OF A COMPOUND 50.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY;

THENCE EASTERLY ALONG SAID CURVE, 9.74 FEET THROUGH A CENTRAL ANGLE OF 11°09'53";

THENCE SOUTH 66°05'00" EAST 63.16 FEET TO THE BEGINNING OF A 50.00 FOOT RADIUS CURVE CONCAVE NORTHERLY;

THENCE EASTERLY ALONG SAID CURVE, 18.57 FEET THROUGH A CENTRAL ANGLE OF 21°16'36";

THENCE SOUTH 87°21'36" EAST 161.22 FEET TO THE BEGINNING OF A 1,000.00 FOOT RADIUS CURVE CONCAVE NORTHERLY;

THENCE EASTERLY ALONG SAID CURVE, 181.98 FEET THROUGH A CENTRAL ANGLE OF 10°25'36";

THENCE NORTH 82°12'48" EAST 427.49 FEET TO THE BEGINNING OF A 50.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY;

THENCE EASTERLY ALONG SAID CURVE, 24.73 FEET THROUGH A CENTRAL ANGLE OF 28°20'21";

THENCE NORTH 53°52'27" EAST 60.28 FEET;

THENCE NORTH 55°14'42" EAST 495.14 FEET;

THENCE NORTH 06°37'42" WEST 170.56 FEET TO BOUNDARY OF SAID PARCEL NO. 2 OF THOSE CERTAIN PARCELS OF LAND CONVEYED TO THE RANSOM COMPANY BY DEED RECORDED IN BOOK 991 AT PAGE 486 AND 487 OF OFFICIAL RECORDS OF SAID COUNTY;

THENCE ALONG LAST SAID BOUNDARY SOUTH 83°22'17" WEST 808.60 FEET TO THE POINT OF COMMENCEMENT.

EXHIBIT "A"
LEGAL DESCRIPTION

NOT A PART #7

ALSO EXCEPTING THEREFROM THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE BOUNDARY OF SAID DEED RECORDED IN BOOK 955 AT PAGE 427 OF OFFICIAL RECORDS, DISTANT THEREON NORTH 71°38'25" WEST 595.22 FEET FROM THE SOUTHEAST CORNER THEREOF;

THENCE SOUTH 37°58'39" EAST 170.07 FEET;

THENCE SOUTH 44°54'53" EAST 96.56 FEET;

THENCE SOUTH 57°02'03" EAST 142.49 FEET;

THENCE SOUTH 61°25'45" EAST 205.14 FEET;

THENCE NORTH 33°04'57" EAST 46.20 FEET;

THENCE NORTH 21°04'40" EAST 38.66 FEET;

THENCE NORTH 24°22'27" EAST 89.83 FEET;

THENCE NORTH 25°28'14" EAST 37.65 FEET TO THE BOUNDARY OF LAST SAID DEED;

THENCE ALONG SAID BOUNDARY NORTH 71°38'25" WEST 595.22 FEET TO THE POINT OF COMMENCEMENT.

ALSO EXCEPTING THEREFROM PARCEL D OF CERTIFICATE OF COMPLIANCE RECORDED DECEMBER 28, 2006 IN BOOK 20061228, PAGE 1682 OF OFFICIAL RECORDS OF SACRAMENTO COUNTY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST EASTERLY CORNER OF THAT CERTAIN TRIANGULAR STRIP OF LAND CONVEYED TO THE CENTRAL RAILWAY COMPANY AS PARCEL NO. 2 BY DEED RECORDED IN BOOK 655 OF DEEDS AT PAGE 489;

THENCE ALONG THE BOUNDARY OF SAID PARCEL NO. 2, SOUTH 89° 35' 01" WEST, 488.40 FEET;

THENCE CONTINUING ALONG SAID BOUNDARY SOUTH 00° 24' 59" EAST, 347.74 FEET;

THENCE LEAVING SAID BOUNDARY SOUTH 15° 38' 36" WEST, 165.98 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 09° 58' 14" EAST, 581.56 FEET;

THENCE NORTH 79' 55" 50" EAST, 288.50 FEET;

THENCE NORTH 82° 07' 51" EAST, 150.00 FEET;

THENCE NORTH 80° 01' 46" EAST, 286.61 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 1263.14 FEET TO WHICH A RADIAL BEARS SOUTH 84° 10' 24" WEST;

THENCE NORTHERLY 498.86 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 22° 37' 42" TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 375.26 FEET TO WHICH A RADIAL BEARS NORTH 02° 21'08" EAST;

THENCE SOUTHWESTERLY 162.38 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24° 47' 34" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 526.33 FEET TO WHICH A RADIAL BEARS SOUTH 22° 26' 26" EAST;

THENCE WESTERLY 153.99 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 16° 45' 48";

THENCE SOUTH 84° 19' 22" WEST, 232.96 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 637.00 FEET;

THENCE WESTERLY 275.31 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24° 45' 46" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 565.52 FEET TO WHICH A RADIAL BEARS NORTH 19° 05' 08" EAST;

THENCE NORTHWESTERLY 54.63 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 05° 32' 05" TO THE TRUE POINT OF BEGINNING.

THIS PARCEL IS ALSO DESCRIBED AS PARCEL 2 IN THE CERTIFICATE OF COMPLIANCE RECORDED JANUARY 31, 2007 IN BOOK 20070131 PAGE 2410, OFFICIAL RECORDS.

EXHIBIT "A"
LEGAL DESCRIPTION

NOT A PART #3

ALSO EXCEPTING THEREFROM ALL THAT CERTAIN PROPERTY DESCRIBED IN THAT CERTAIN "GRANT DEED" TO THE CITY OF SACRAMENTO, A MUNICIPAL CORPORATION RECORDED FEBRUARY 28, 2011, IN BOOK 20110228 PAGE 0955 OF OFFICIAL RECORDS.

NOT A PART #1

ALSO EXCEPTING THEREFROM ALL THAT CERTAIN PROPERTY DESCRIBED IN THAT CERTAIN "GRANT DEED" TO THE CITY OF SACRAMENTO, A MUNICIPAL CORPORATION RECORDED APRIL 26, 2012, IN BOOK 20120426 PAGE 1168 OF OFFICIAL RECORDS.

CONTAINING 134.31 ACRES, MORE OR LESS.

PARCEL THREE:

ALL THAT CERTAIN REAL PROPERTY IN THE CITY AND COUNTY OF SACRAMENTO, STATE OF CALIFORNIA AND BEING A PORTION OF THAT CERTAIN 203.161 ACRE TRACT OF LAND SHOWN AND DELINEATED ON RECORD OF SURVEY FILED IN BOOK 51 OF SURVEYS AT PAGE 10 OF THE OFFICIAL RECORDS OF SACRAMENTO COUNTY AND A PORTION OF PARCEL A AS SAID PARCEL IS SHOWN AND SO DESIGNATED ON PARCEL MAP FILED IN BOOK 120 OF PARCEL MAPS, AT PAGE 10 OF OFFICIAL RECORDS BEING DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST EASTERLY CORNER OF THAT CERTAIN TRIANGULAR STRIP OF LAND CONVEYED TO THE CENTRAL RAILWAY COMPANY AS PARCEL NO. 2 BY DEED RECORDED IN BOOK 655 OF DEEDS AT PAGE 489;

THENCE ALONG THE BOUNDARY OF SAID PARCEL NO. 2, SOUTH 89° 35' 01" WEST, 488.40 FEET;

THENCE CONTINUING ALONG SAID BOUNDARY SOUTH 00° 24' 59" EAST, 347.74 FEET;

THENCE LEAVING SAID BOUNDARY SOUTH 15° 38' 36" WEST, 165.98 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 09° 58' 14" EAST, 581.56 FEET;

THENCE NORTH 79' 55" 50" EAST, 288.50 FEET;

THENCE NORTH 82° 07' 51" EAST, 150.00 FEET;

THENCE NORTH 80° 01' 46" EAST, 286.61 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 1263.14 FEET TO WHICH A RADIAL BEARS SOUTH 84° 10' 24" WEST;

THENCE NORTHERLY 498.86 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 22° 37' 42" TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 375.26 FEET TO WHICH A RADIAL BEARS NORTH 02° 21'08" EAST;

THENCE SOUTHWESTERLY 162.38 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24° 47' 34" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 526.33 FEET TO WHICH A RADIAL BEARS SOUTH 22° 26' 26" EAST;

THENCE WESTERLY 153.99 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 16° 45' 48";

THENCE SOUTH 84° 19' 22" WEST, 232.96 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 637.00 FEET;

THENCE WESTERLY 275.31 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24° 45' 46" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 565.52 FEET TO WHICH A RADIAL BEARS NORTH 19° 05' 08" EAST;

THENCE NORTHWESTERLY 54.63 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 05° 32' 05" TO THE TRUE POINT OF BEGINNING.

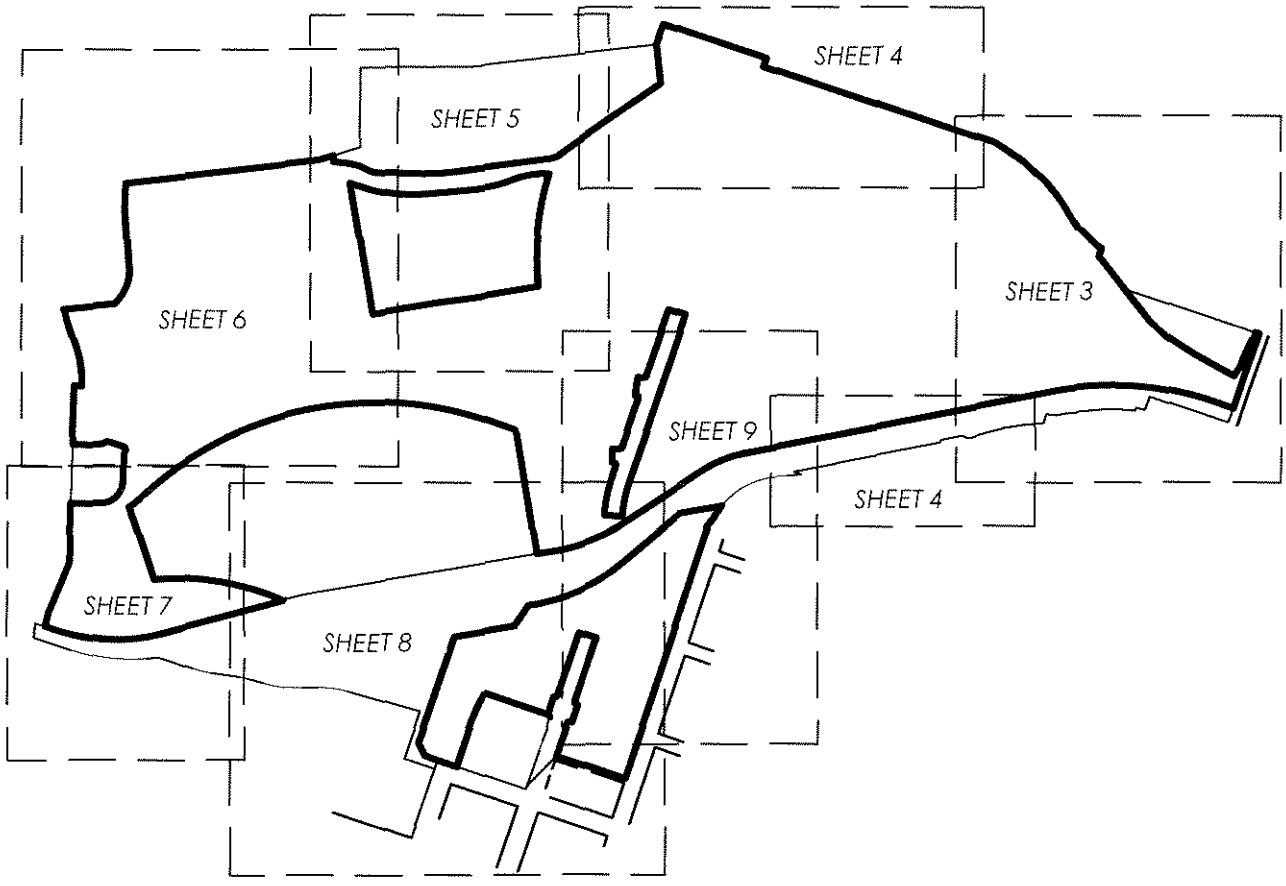
THIS PARCEL IS ALSO DESCRIBED AS PARCEL D IN THE CERTIFICATE OF COMPLIANCE RECORDED DECEMBER 28, 2006 IN BOOK 20061228, PAGE 1682 OF OFFICIAL RECORDS.

CONTAINING 8.74 ACRES, MORE OR LESS.

Exhibit B

Plat of Property

EXHIBIT B



SHEET INDEX MAP

8/28/2015

Kimley»Horn
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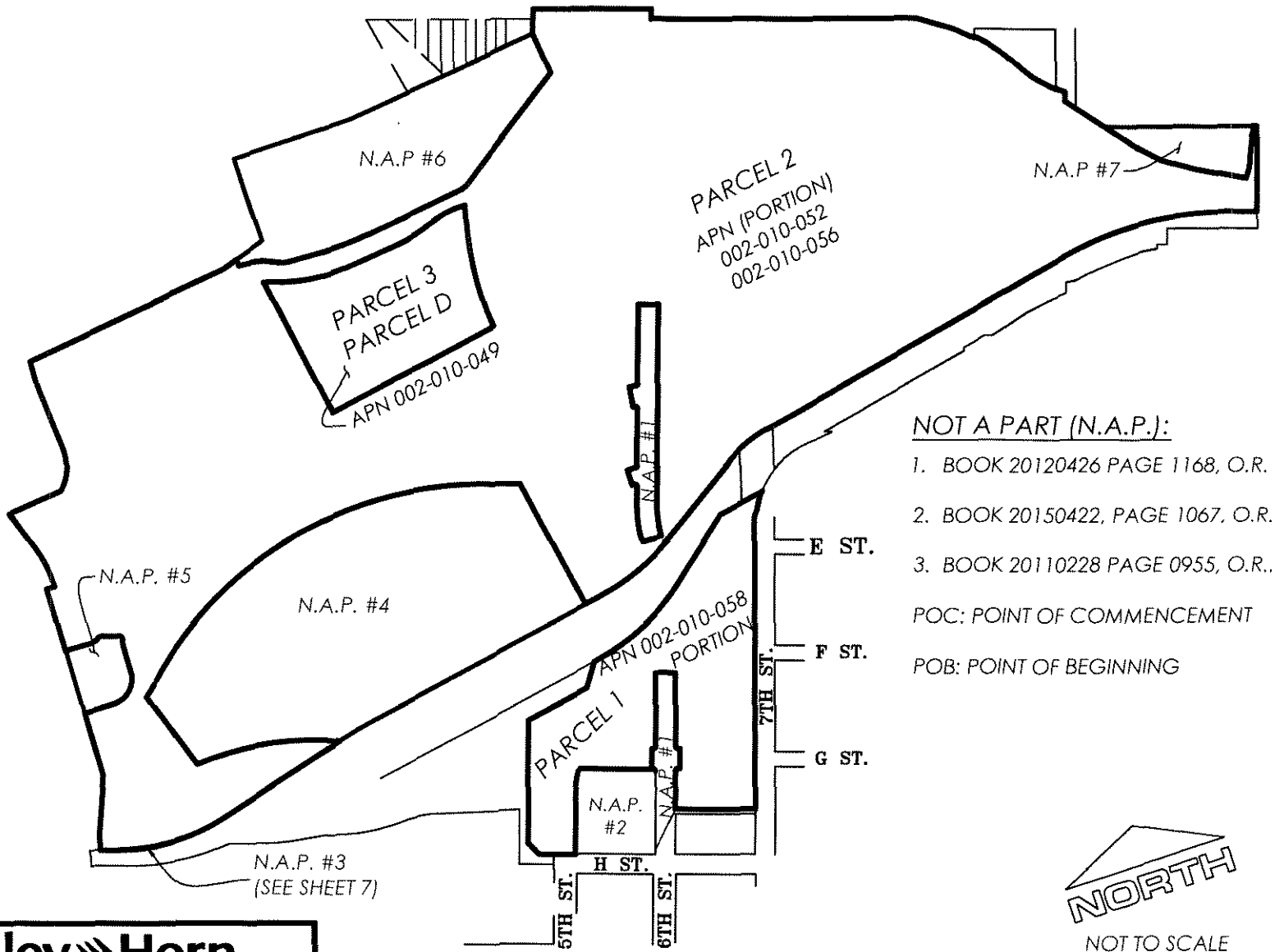
TEL: (619) 234-9411

NORTH

GRAPHIC SCALE IN FEET
0 400 800 1600

EXHIBIT B



NOT A PART (N.A.P.):

1. BOOK 20120426 PAGE 1168, O.R.
2. BOOK 20150422, PAGE 1067, O.R.
3. BOOK 20110228 PAGE 0955, O.R..

POC: POINT OF COMMENCEMENT

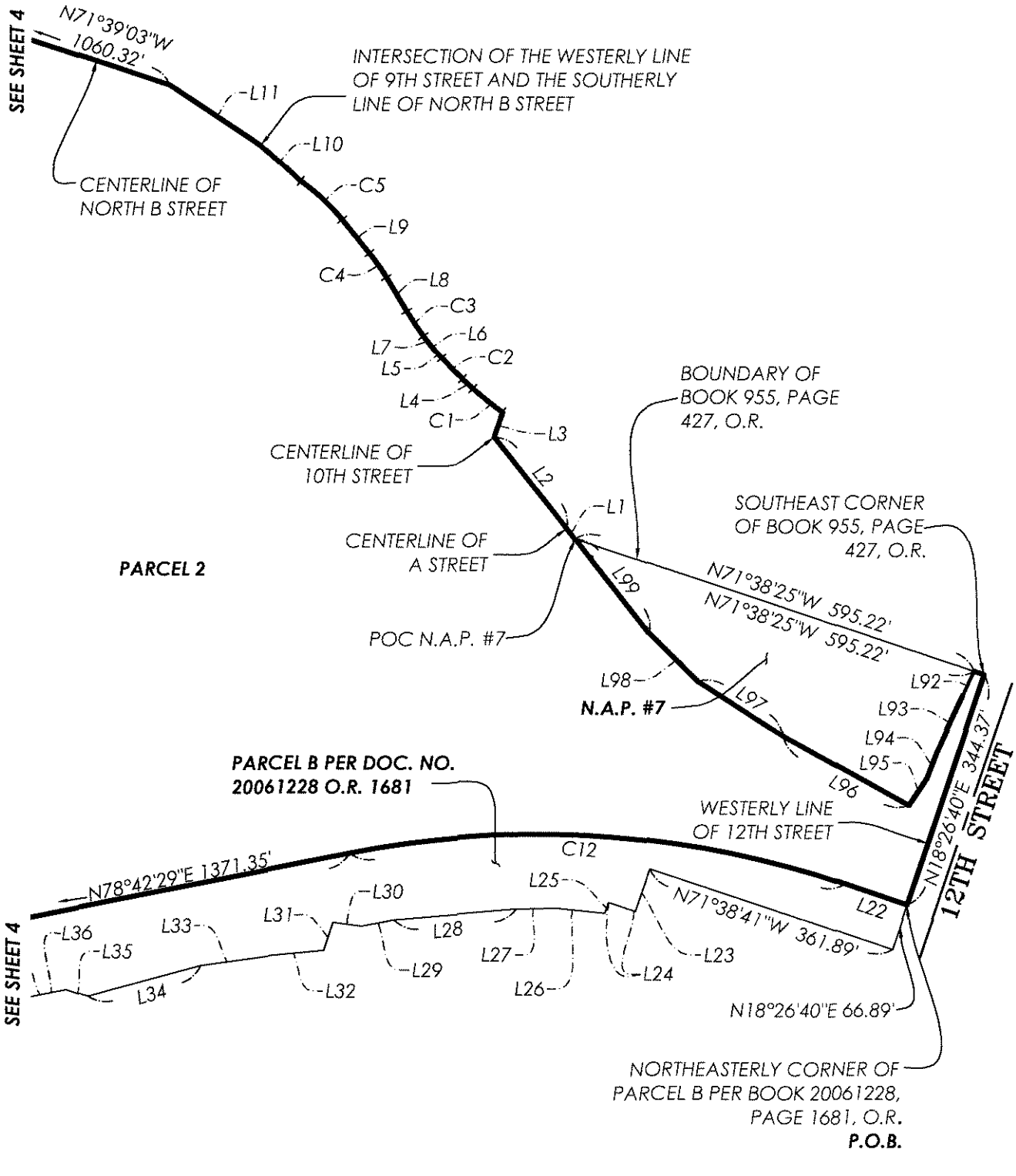
POB: POINT OF BEGINNING

NORTH

NOT TO SCALE

Kimley»Horn
401 B STREET, SUITE 600, SAN DIEGO, CA 92101
PHONE: 619-234-9411
WWW.KIMLEY-HORN.COM

EXHIBIT B



GRAPHIC SCALE IN FEET
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NORTH

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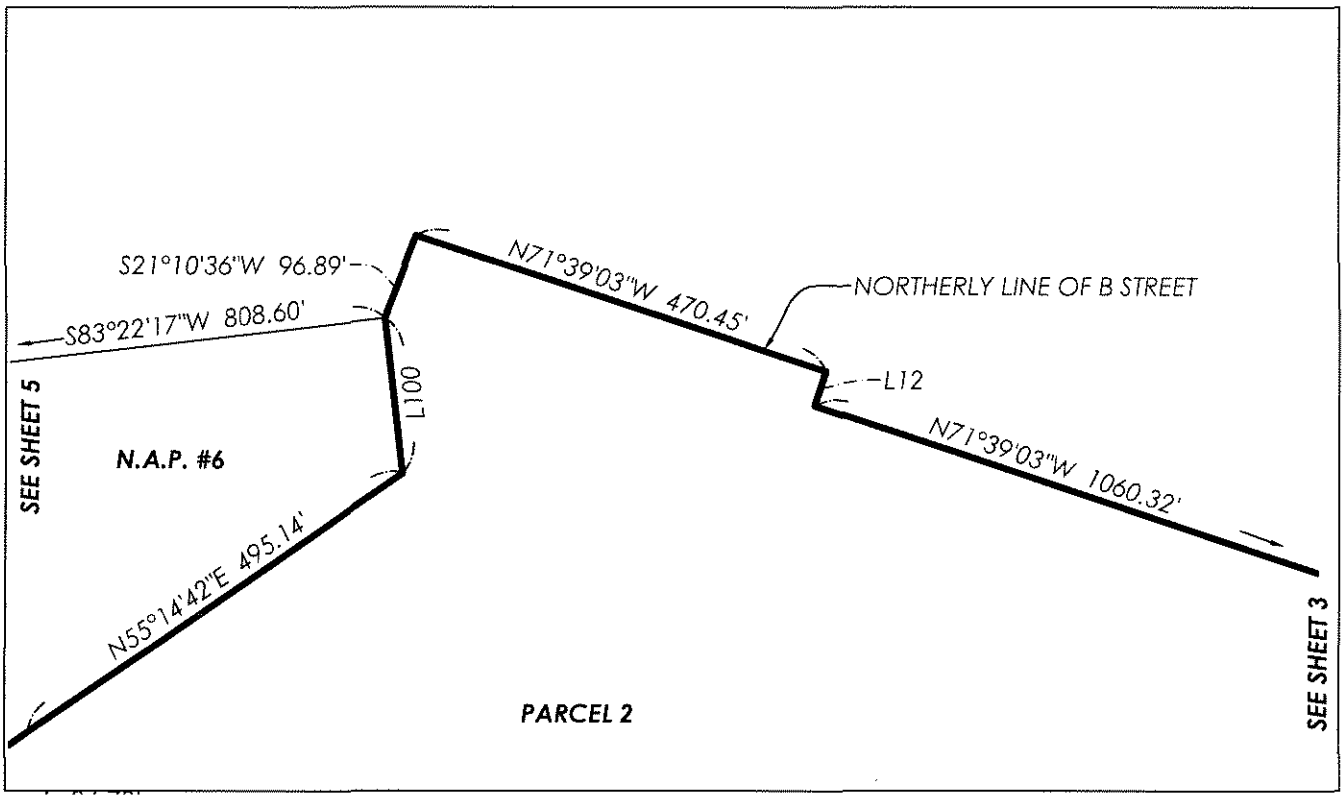
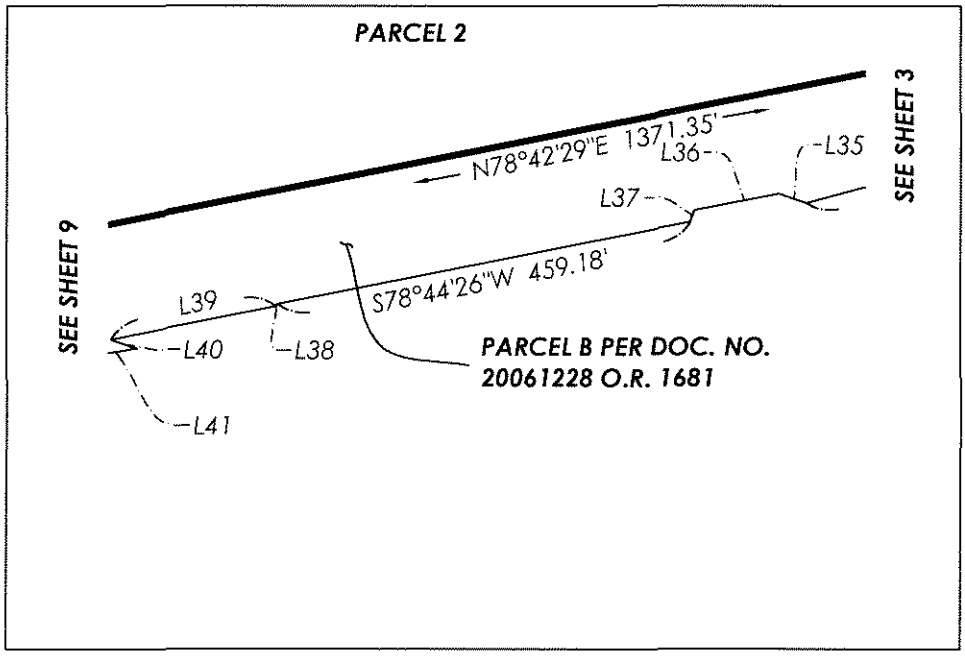
EXHIBIT B





GRAPHIC SCALE IN FEET
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NORTH

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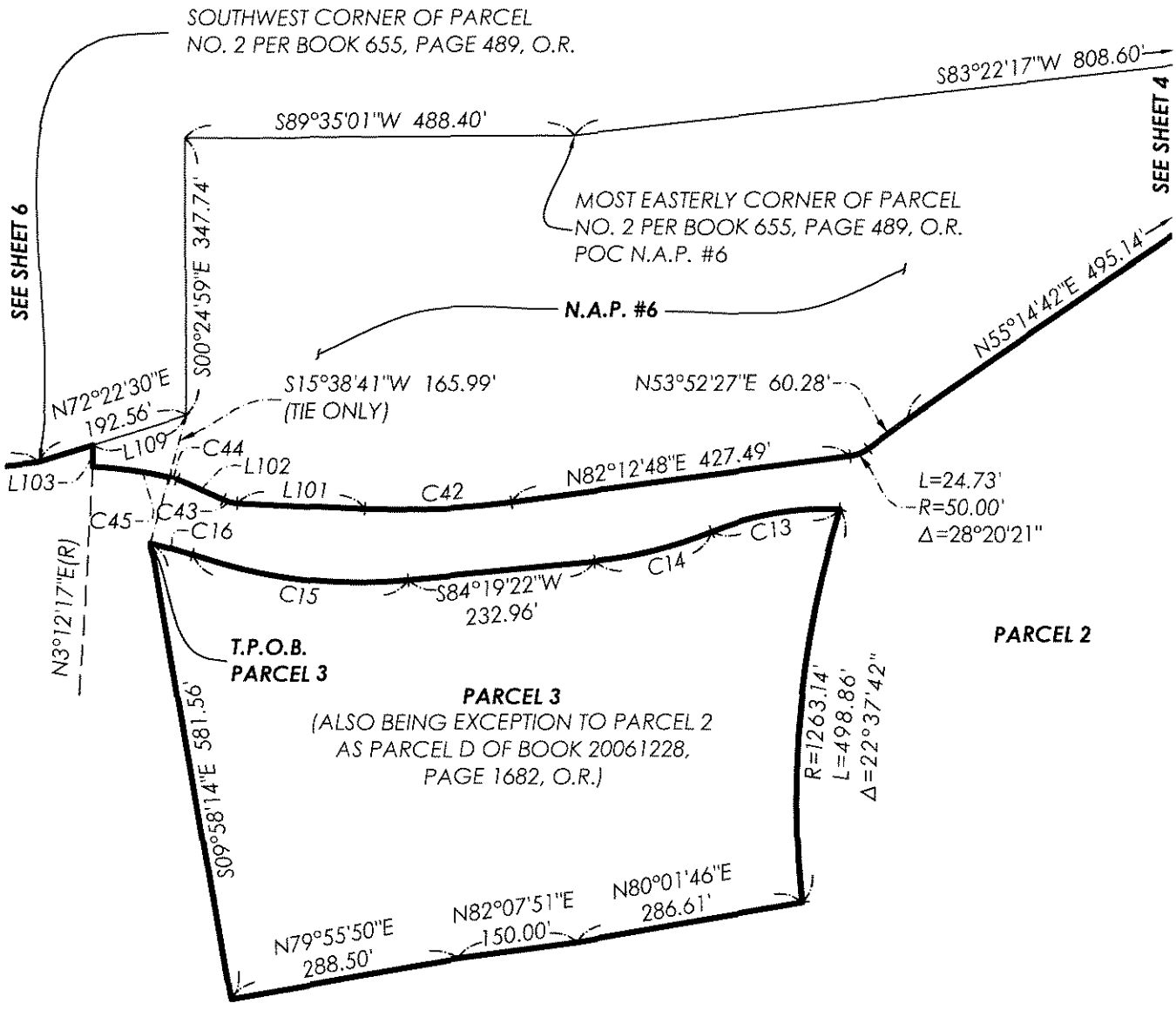

GRAPHIC SCALE IN FEET

0 100 200 400

NORTH

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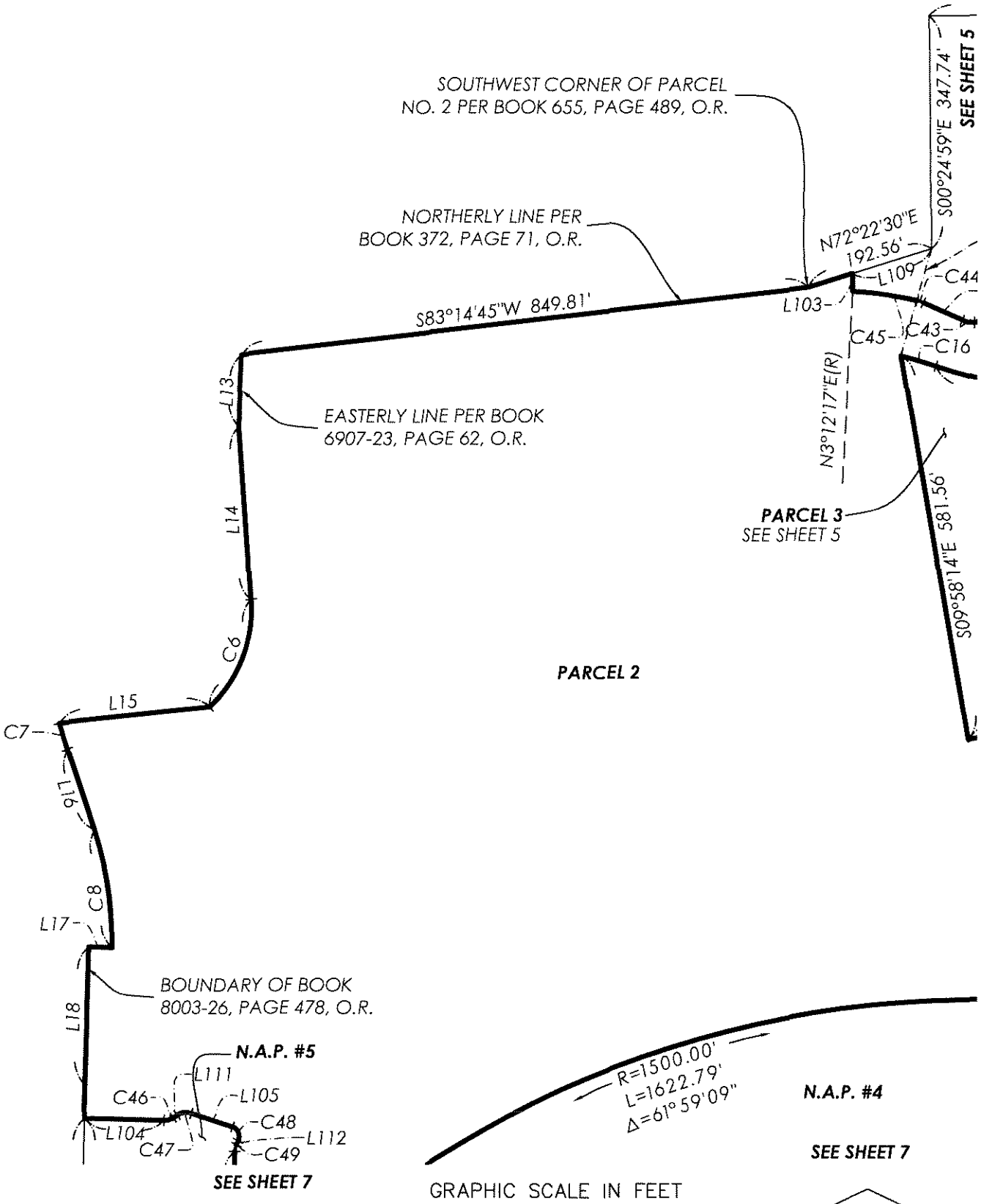

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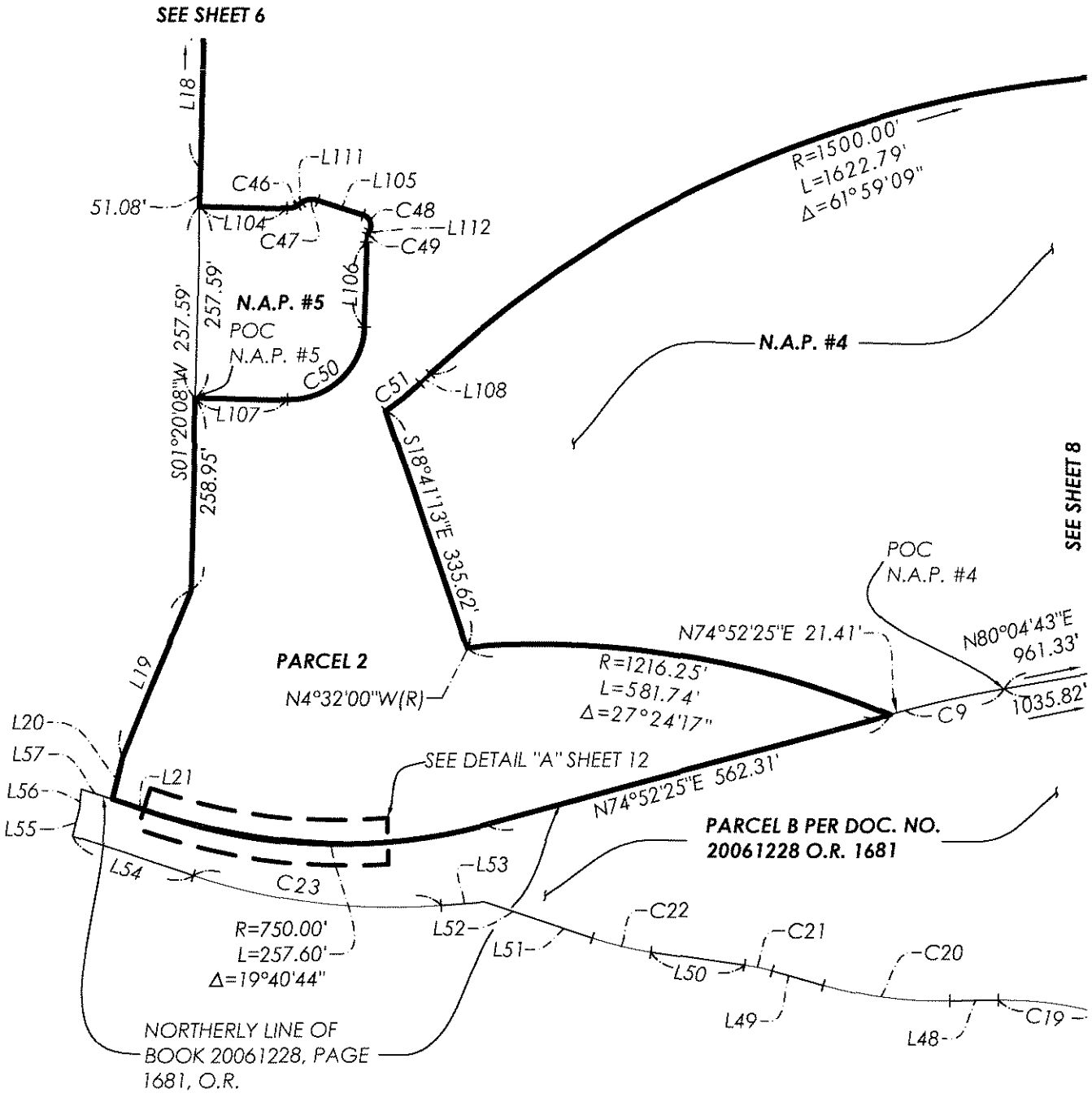
EXHIBIT B



GRAPHIC SCALE IN FEET

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NORTH

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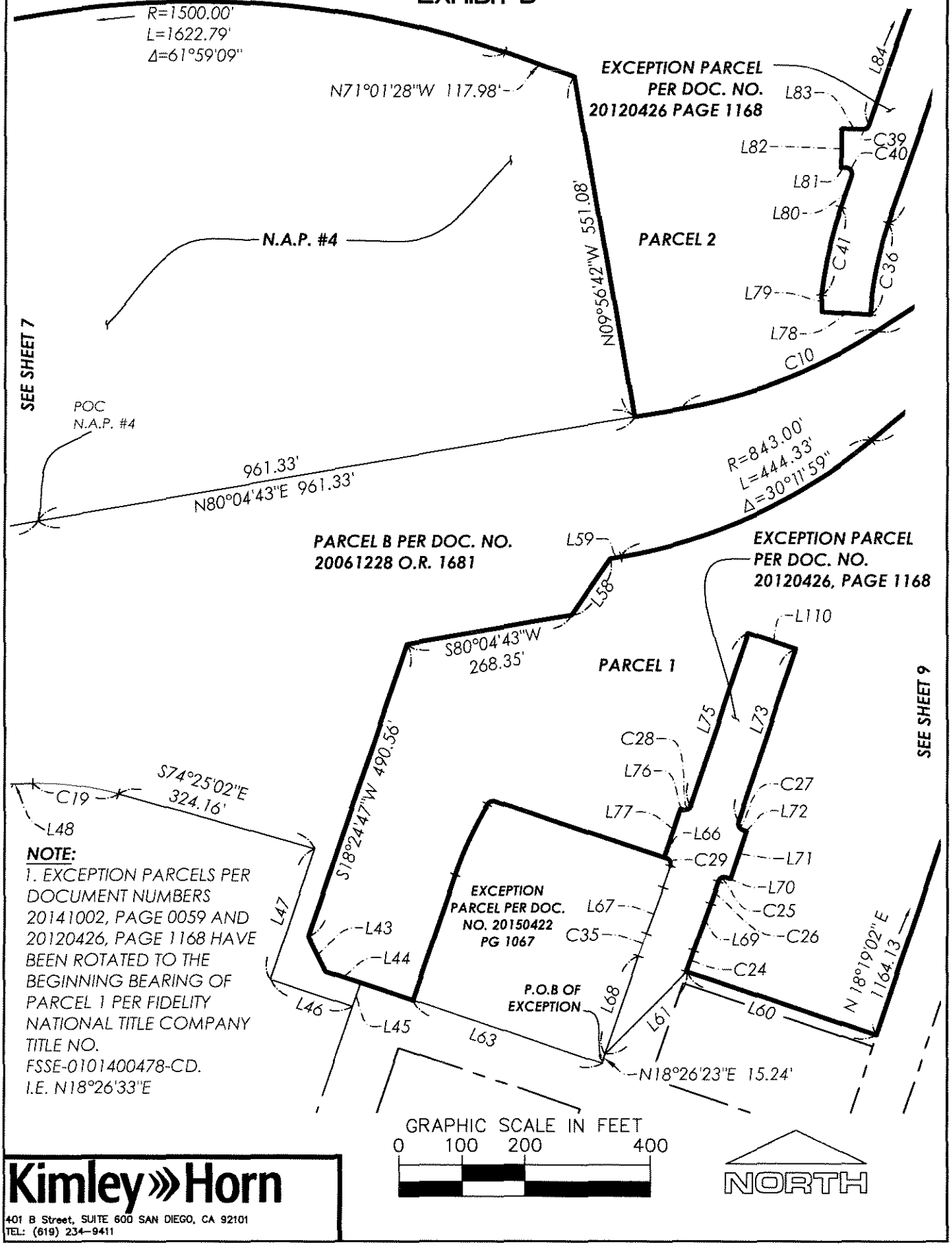
EXHIBIT B



NOTE:

1. EXCEPTION PARCELS PER DOCUMENT NUMBERS 20141002, PAGE 0059 AND 20120426, PAGE 1168 HAVE BEEN ROTATED TO THE BEGINNING BEARING OF PARCEL 1 PER FIDELITY NATIONAL TITLE COMPANY TITLE NO. FSSE-0101400478-CD. I.E. N18°26'33"E

GRAPHIC SCALE IN FEET
0 100 200 400

NORTH

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EXHIBIT B

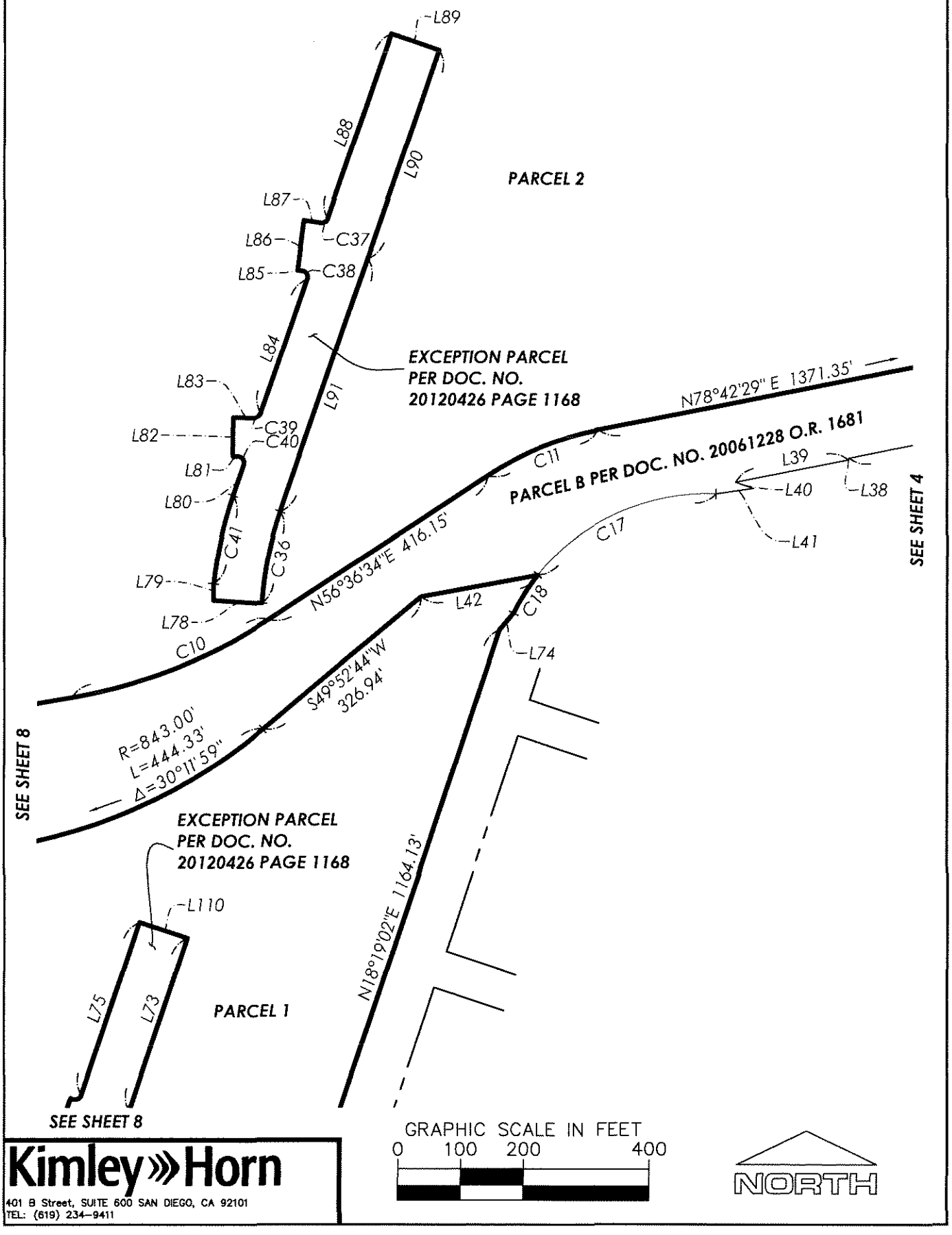

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EXHIBIT B

CURVE DATA TABLE			
-	RADIUS	LENGTH	DELTA
C13	375.26'	162.38'	24°47'34"
C14	526.33'	153.99'	16°45'48"
C15	637.00'	275.31'	24°45'46"
C16	565.52'	54.63'	5°32'05"
C17	346.98'	320.82'	52°58'34"
C18	347.00'	72.50'	11°58'18"
C19	463.00'	135.42'	16°45'28"
C20	598.00'	173.69'	16°38'31"
C21	300.00'	37.89'	7°14'13"
C22	465.50'	82.27'	10°07'32"
C23	843.00'	336.55'	22°52'26"
C24	1960.00'	35.68'	1°02'35"
C25	10.00'	15.68'	89°50'21"
C26	2040.00'	37.96'	1°03'59"
C27	10.00'	15.74'	90°09'29"
C28	10.00'	15.68'	89°50'31"
C29	10.00'	15.74'	90°10'08"
C35	2040.00'	37.14'	1°02'35"
C36	563.50'	149.43'	15°11'38"
C37	10.00'	13.69'	78°26'58"

CURVE DATA TABLE			
-	RADIUS	LENGTH	DELTA
C38	10.00'	17.74'	101°38'19"
C39	10.00'	12.52'	71°44'30"
C40	10.00'	18.89'	108°15'30"
C41	643.50'	144.16'	12°50'07"
C42	1000.00'	181.98'	10°25'36"
C43	50.00'	18.57'	21°16'36"
C44	50.00'	9.74'	11°09'53"
C45	585.00'	97.48'	9°32'50"
C46	25.00'	14.82'	33°57'17"
C47	25.00'	22.10'	50°38'34"
C48	15.00'	25.47'	97°16'56"
C49	25.00'	10.46'	23°58'13"
C50	100.00'	157.08'	90°00'00"
C51	500.00'	59.06'	6°46'04"

CURVE DATA TABLE			
-	RADIUS	CHORD LENGTH	CHORD
C1	372.24'	54.17	N51° 22' 21"W
C2	371.79'	42.67	N43° 54' 37"W
C3	371.79'	42.67	N34° 07' 48"W
C4	296.57'	42.23	N34° 55' 23"W
C5	296.57'	80.30	N46° 47' 12"W
C6	200.00'	172.14	S21° 09' 08"W
C7	980.00'	41.08	S17° 04' 57"E
C8	520.00'	177.21	S8° 28' 21"E
C9	1500.00'	136.22	S77° 28' 34"W
C10	825.00'	335.57	N68° 20' 39"E
C11	500.00'	191.65	S67° 39' 32"W
C12	1370.00'	703.41	N86° 25' 00"W

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CURVE DATA SHEET

EXHIBIT B

LINE DATA TABLE		
-	LENGTH	BEARING
L1	18.80'	N38° 53' 55"W
L2	166.40'	N38° 53' 55"W
L3	37.18'	N18° 22' 57"E
L4	20.41'	N47° 12' 00"W
L5	14.72'	N40° 37' 14"W
L6	10.00'	N39° 01' 43"W
L7	14.72'	N37° 25' 11"W
L8	55.84'	N30° 50' 25"W
L9	61.00'	N39° 00' 21"W
L10	75.74'	N47° 21' 51"W
L11	155.24'	N56° 43' 10"W

LINE DATA TABLE		
-	LENGTH	BEARING
L12	40.00'	N18° 15' 57"E
L13	106.95'	S2° 54' 31"W
L14	258.98'	S4° 20' 18"E
L15	225.06'	S83° 57' 15"W
L16	127.28'	S18° 17' 00"E
L17	34.33'	N88° 39' 43"W
L18	204.49'	S1° 25' 08"W
L19	242.66'	S22° 17' 45"W
L20	58.10'	S13° 05' 18"W
L21	71.56'	S71° 34' 07"E

LINE DATA TABLE		
-	LENGTH	BEARING
L22	93.07'	S71° 32' 29"E
L23	62.81'	S18° 27' 07"W
L24	40.00'	N71° 32' 53"W
L25	16.28'	S18° 27' 07"W
L26	67.86'	N84° 24' 44"W
L27	59.50'	S89° 11' 12"W
L28	174.67'	S84° 52' 06"W
L29	46.26'	S79° 18' 07"W
L30	40.70'	N82° 18' 34"W
L31	42.10'	S18° 20' 40"W

LINE DATA TABLE		
-	LENGTH	BEARING
L32	83.62'	S84° 27' 01"W
L33	91.61'	S81° 47' 13"W
L34	165.44'	S74° 47' 23"W
L35	32.04'	N71° 39' 20"W
L36	93.14'	S78° 44' 26"W
L37	13.22'	S18° 16' 26"W
L38	2.91'	S18° 20' 04"W
L39	184.37'	S78° 44' 26"W
L40	30.45'	S71° 33' 53"E
L41	60.44'	S81° 33' 29"W

LINE DATA TABLE		
-	LENGTH	BEARING
L42	190.28'	S79° 25' 14"W
L43	62.45'	S26° 44' 53"E
L44	57.14'	S71° 37' 38"E
L45	40.07'	S18° 26' 34"W
L46	136.17'	N71° 33' 22"W
L47	219.75'	S18° 19' 44"W
L48	65.06'	S88° 49' 30"W
L49	71.04'	N74° 31' 59"W
L50	126.38'	N81° 46' 12"W
L51	81.23'	N71° 38' 40"W

LINE DATA TABLE		
-	LENGTH	BEARING
L52	73.92'	N71° 36' 58"W
L53	56.27'	N85° 33' 27"E
L54	169.51'	N71° 34' 07"W
L55	37.80'	N14° 06' 26"E
L56	25.91'	N7° 07' 30"E
L57	43.27'	S71° 34' 44"E
L58	107.73'	S33° 41' 42"W
L59	17.41'	S80° 04' 43"W
L60	319.58'	S71° 37' 21"E
L61	183.76'	N44° 14' 53"E

LINE DATA SHEET

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EXHIBIT B

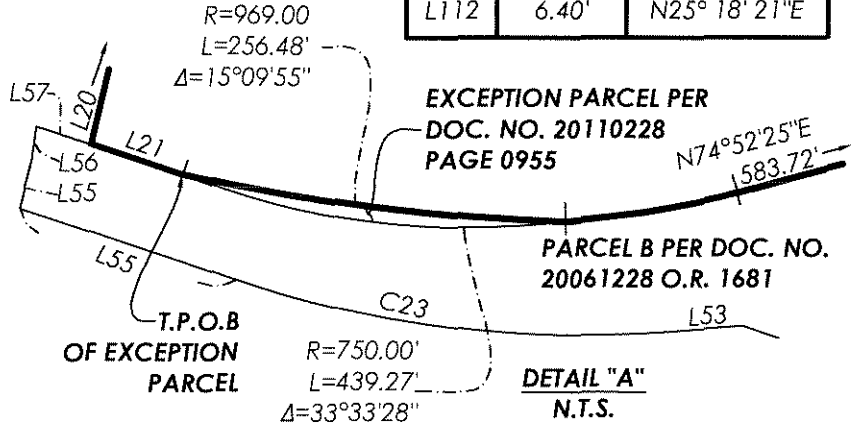
LINE DATA TABLE		
-	LENGTH	BEARING
L63	318.34'	S71° 33' 22"E
L66	3.98'	N71° 44' 39"W
L67	78.86'	N19° 28' 58"E
L68	165.43'	N18° 26' 23"E
L69	78.86'	S19° 28' 58"W
L70	7.51'	N71° 44' 39"W
L71	80.00'	S18° 15' 21"W
L72	7.23'	S71° 44' 39"E
L73	289.97'	S18° 24' 50"W
L74	34.84'	N40° 07' 56"E

LINE DATA TABLE		
-	LENGTH	BEARING
L75	290.25'	N18° 24' 50"E
L76	4.26'	S71° 44' 39"E
L77	80.00'	N18° 15' 21"E
L78	78.04'	S86° 17' 04"E
L79	26.54'	N0° 39' 49"E
L80	51.66'	N18° 55' 19"E
L81	7.72'	N89° 20' 11"W
L82	62.00'	N0° 39' 49"E
L83	34.78'	S89° 20' 11"E
L84	225.43'	N18° 55' 19"E

LINE DATA TABLE		
-	LENGTH	BEARING
L85	6.91'	N82° 42' 59"W
L86	80.00'	N7° 17' 01"E
L87	27.45'	S82° 42' 59"E
L88	311.25'	N18° 50' 02"E
L89	80.00'	S71° 09' 58"E
L90	351.38'	S18° 50' 02"W
L91	425.54'	S18° 55' 19"W
L92	37.65'	N25° 28' 14"E
L93	89.83'	N24° 22' 27"E
L94	38.66'	N21° 04' 40"E

LINE DATA TABLE		
-	LENGTH	BEARING
L95	46.20'	N33° 04' 57"E
L96	205.14'	S61° 25' 45"E
L97	142.49'	S57° 02' 03"E
L98	96.56'	S44° 54' 53"E
L99	170.07'	S37° 58' 39"E
L100	170.56'	N6° 37' 42"W
L101	161.22'	S87° 21' 36"E
L102	63.16'	S66° 05' 00"E
L103	26.76'	S0° 24' 58"E
L104	117.93'	N88° 39' 52"W

LINE DATA TABLE		
-	LENGTH	BEARING
L105	64.11'	N71° 58' 35"W
L106	114.06'	N1° 20' 08"E
L107	124.84'	N88° 39' 52"W
L108	18.91'	N46° 59' 22"E
L109	122.92'	S72° 22' 30"W
L110	80.00'	S71° 35' 10"E
L111	6.94'	N57° 22' 51"E
L112	6.40'	N25° 18' 21"E



DETAIL "A"
N.T.S.

LINE DATA SHEET

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Railyards Projects

Soil & Groundwater Management Plan

Sacramento Railyards

Sacramento, California

December 2015

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Exhibit A: Master Development
Exhibit B: Certified Area
Exhibit C: Non-Certified Area
Exhibit D: Railyards Soil Study Areas
Exhibit E: Current Railyards Remedial Goals for Each Major Study Area

1.0 Introduction

1.1 Plan Purpose

This "*Railyards Projects Soil & Ground Water Management Plan"* ("Plan") has been prepared for use with each development project ("Project") constructed within the Downtown Sacramento Railyards, referred to as the "Master Development", which involve the handling of Development Soil and Development Groundwater (as such terms are hereinafter defined) and certain other matters described herein to ensure compliance with regulatory requirements and other obligations set forth in this Plan. Specific provision of this Plan apply to (i) the portion of the Master Development described in the LAND USE COVENANT AND AGREEMENT, ENVIRONMENTAL RESTRICTIONS, COUNTY OF SACRAMENTO, PORTIONS OF APNS 002-0010-049, 002-0010-052, 002-0010-056 AND 002-0010-058, SPECIFIED STUDY AREAS WITHIN THE SACRAMENTO RAILYARDS, SACRAMENTO, SACRAMENTO COUNTY, recorded in the Official Records of Sacramento County in Book _____, at Page___ ("LUC" and the real property described therein is the "Certified Area"), and (ii) the remainder of the Master Development ("Non-Certified Area"). The Master Development is described in Exhibit A, the Certified Area is described in Exhibit B, and the Non-Certified Area is descried in Exhibit C, each of which is attached hereto. The Soil Study Areas within the Master Development are shown on Exhibit D

This Plan's purpose is to describe required management, handling, and procedures associated with encountered soil, groundwater, and general waste streams with the potential to require special handling.

This Plan is based on existing regulatory order(s), including the 1988 Enforceable Agreement with Southern Pacific Transportation Company (SPTCo), the predecessor of Union Pacific Railroad Company ("UPRR") (the responsible party); along with relevant approvals, practices, and procedures that have been established during the cumulative regulatory process and working experience at the Master Development, and as set forth and implemented in several project-specific soil and groundwater management plans that have thus far been approved by the Department of Toxic Substances Control ("DTSC") and implemented at the Master Development.

This Plan has been prepared by Downtown Railyard Venture, LLC, a Delaware limited liability company ("DRV"), the owner of the Master Development. DRV intends to assign its rights under this Plan to an association formed under a Master Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Sacramento Railyards and, upon such assignment, the association shall have all the rights of DRV hereunder.

1.2 Project Construction Area and Plan Applicability

This Plan is applicable to all Projects within the Master Development and relates to (i) soils moved, handled, disturbed and/or excavated by or on behalf of a Project Proponent (as hereinafter defined) in anticipation of or during the course of a Project ("Development Soils"), (ii) groundwater encountered by or on behalf of a Project Proponent during the course of a Project that requires pumping for excavation activities ("Development Groundwater"), and (iii) the imposition of and the required satisfaction of other obligations set forth in this Plan.

Projects may be constructed on any single parcel, a combination of parcels, or areas

designated for open space and roadways, irrespective of the ownership of the various land components of a given Project; and may be constructed on land that crosses different ownerships, roads, and open space within the Master Development.

Implementation of this Plan for Projects that cross multiple parcels with different Parcel Owners are subject to (i) the prior approval of DRV, and (ii) the entering into of all required and relevant ownership agreements by the affected Property Owners for such Project.

This Plan applies to all current and future Property Owners, their respective successors and assigns, and each of respective operators, tenants, contractors and sub-contractors preforming construction activities as part of a Project.

1.3 Regulatory Framework

DTSC has been formally designated as the lead regulatory agency for the Master Development. As the lead agency, DTSC coordinates on Projects involving the handling of Development Soil and/or Development Groundwater aspects that relate to protection of human health and the environment, in consultation with other regulatory agencies as needed. DTSC primarily oversees and regulates all remediation work conducted by UPRR, which is under separate approved plans in accordance with DTSC's approval process.

Projects may be within one or more defined soil and groundwater remediation study areas ("Study Areas") that are subject to DTSC's 1988 enforceable agreement with UPRR. Such Study Areas may be under partial or total cleanup requirements that are being performed by UPRR separate and distinct from Projects. Unless otherwise indicated, soils within the Certified Area have been certified by DTSC as having met their respective RGs (as hereinafter defined) requirements.

The Study Areas within the Master Development are shown on Exhibit D and are: the Sacramento Station; the Central Shops and South Plume; the Central Corridor; the Northern Shops; the Lagoon; the Lagoon Groundwater; Car Shop Nine; the Northwest Corner; and the Manufactured Gas Plant (the Certified Area does not include all such Study Areas).

Remedial Goals ("RGs") for the Master Development have been selected by DTSC for each of the Study Area. These RGs, shown on Exhibit E, were/are established by DTSC to be the more protective value of either construction workers or groundwater exposure, taking into account inhalation of volatile constituents of concern released from groundwater into ambient air, trench air, and indoor air. Additionally, a set of remedial goals for groundwater were also selected to restore the groundwater to beneficial use – the groundwater quality Remedial Goals. RGs for the first encountered groundwater (the upper Sand Zone) are the more stringent of the health based goals or groundwater quality goals for a given constituent

The underlying assumption for this Plan for Development Soil handling purposes is that soil within the Certified Area has been certified, unless indicated otherwise. It is also assumes that historic and previously-identified contaminations within the Certified Area (Historic Contamination, also referred to as contamination) above RG levels has been remediated or placed under engineering or institutional controls approved by DTSC to meet the established cleanup goals.

This Plan describes development management activities for Development Soil and Development Groundwater consistent with DTSC directives for on-site management and testing for certified areas before appropriate final disposition is determined. In addition, this Plan

describes testing, management, treatment, and disposition activities that will be implemented in the event that Development Soil and Development Groundwater is determined to be above applicable RGs.

Existing approvals and standard operating procedures developed for Non-Certified Areas or inaccessible areas within the Master Development are described in Section 5. DTSC will be informed and consulted when work in these areas occurs.

1.4 Parties Implementing this Plan

The following constitute the general parties that are anticipated to implement this Plan:

- Project Proponent: The Project Proponent is defined as the entity that is primarily responsible for the construction of a given project. The Project Proponent will be responsible for obtaining all approvals and permits, encroachment permits, enter into agreements with owners as needed, obtain project approvals, execute all hazardous and non-hazardous waste manifests; file the storm water Notice of Intent, and oversee the implementation of the Project's SWPPP. The Project Proponent will obtain Property Owner(s) approvals on all items related to agreements governed between the parties (Property Owners and Project Proponent).

- Construction Manager: Working under the direction of the Project Proponent, the Construction Manager ("CM") will oversee the implementation of the Plan and ensure the compliance of General Contractors and sub-contractors. The Project Proponent may act as the Construction Manager.

- General Contractor: A Project's General Contractor will implement this Plan under the oversight of the CM, and in accordance with applicable rules and regulations, including agreements with owner(s).

- Environmental Oversight Project Manager: The Environmental Oversight Project Manager ("EOPM") will oversee activities related to the implementation of this Plan, and will coordinate with owners and regulators, as necessary. The EOPM may be part of the Project Proponent of the CM teams.

- Regulatory Oversight: The DTSC is the lead regulatory agency overseeing all aspects of Plan's implementation. Regional Water Quality Control Board, Central Valley Region ("RWQCB") coordinates and assists with the oversight of the site in areas where DTSC seeks support or areas that are under the direct jurisdiction of RWQCB.

- Property Owner: Public or private entity(ies) that own of all or portions of the property (including roadways and open space) within the Master Development where a Project(s) is to be constructed.

1.5 Plan Implementation, Amendments and Approvals

This Plan has been prepared in accordance with regulatory approvals and relevant agreements in compliance with engineering and institutional requirements of the LUC for the Certified Area.

The Property Owner and its Project Proponent for a given Project is responsible for implementing this Plan in accordance with the LUCs (applicable to the Certified Area), all applicable approvals and relevant laws and regulations, this Plan and the Approved Project Addendum (as hereinafter defined).

Should the need for amendments to this Plan arise with regard to a specific Project(s), such amendments shall be made with the written approval of DRV, the Property Owner, and DTSC prior to implementation. Any other amendment to this Plan shall be effective only following the approval of DTSC and DRV.

The following are examples of when DTSC's written approval is required:

- If there is an amendment to the Plan.
- If soil will be exported outside the boundary of the Master Development for any purpose other than disposal at regulated facilities.
- If additional time is needed beyond 30 days to sample Suspect or Impacted Soil stockpiles.
- If a Project is in a Non-Certified Area.
- If monitoring and extraction wells conflict with a proposed Project; and if they need to be removed, modified, abandoned, and/or relocated.
- If groundwater needs to be extracted, treated or discharged.

The following are examples of when DTSC will be notified:

- If roads need closure for soil transportation.
- If well caps are disturbed.
- If significant impacts are discovered, such as discovery of underground storage tanks.

1.6 Project Specific Details

At the inception of any given Project, the Project Proponent will submit to DRV and the various Property Owners whose property will be accessed or impacted, an addendum to this Plan to provide sufficient project details and describe project specific implementation tasks. No work on the Project shall occur until such addendum is approved by such receiving parties (such approved addendum is referred to as the "Approved Project Addendum"). The addendum shall at least include the following (to the extent applicable) and any other information required by this Plan or otherwise requested by the approving parties:

1. Brief project description
2. Project area(s), owner(s), and proponent(s)
3. Project main stakeholders, including public funding agencies, if any
4. Identify the Environmental Oversight Project Manager, Construction Manager, and General Contractor
5. Impacted or restricted areas or properties
6. Construction plans, including earth work handling and Land Use Plans

7. Encroachments, transportation and access routes, laydown areas, project management and support areas, off-site soil and material/waste removal and disposal, soil and material import protocols, and any similar such construction-required plans to be implemented
8. Groundwater control and dewatering plans, if any
9. Plans for wells and above ground or subsurface remediation system relocation and replacement, if any
10. Plans for removal of existing hardscape, especially but not limited to areas where remediation has not occurred, if any
11. Hazardous waste on-site and off-site handling and disposal plans
12. Storm Water Pollution Prevention Plan
13. Health and Safety Plan(s)
14. Transportation and debris handling and removal plan(s)
15. Archaeology oversight and review plan

2.0 Plan Environmental Context

This is a general plan for development construction activities within the Certified Area, and is based on the existing cumulative regulatory approvals that have been developed and approved by the DTSC.

As previously indicated, this Plan identifies a wide range of activities to address various development construction tasks that may be encountered during the development of a Project. These tasks include, but are not limited to, soil excavation and stockpiles, soil transportation, health and safety, asbestos handling and mitigation, groundwater handling, debris handling, well abandonment or adjustment, and general site requirements, among others.

2.1 Project Remedial Goals

In the event RGs are changed by DTSC, all such modified RGs will be applicable and will replace any earlier RGs. The Plan is subject only to the final RGs approved by DTSC at the time of Project implementation.

As a general rule, DRV requires that all construction workers and support staff directly handling soil and groundwater shall be OSHA 40-Hour HAZWOPER trained, Level D criteria, which generally requires personal protective equipment: hard hat, gloves, boots, reflective vest, eye shield (glasses), ear protection, and disposable dust mask as needed (this is not a DTSC requirement). Additional protective measures, such as Level C, are not expected to be used and are not required, unless new unforeseen conditions are encountered that would require such additional protective measures.

The Project Proponent will also require that its Project(s) must proceed in accordance with the mitigation measures set forth in the relevant California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) documents completed for the Master Development and/or specific additional project-related environmental approvals, if and where applicable. All Projects are required to implement applicable regulations regulating storm water control and project drainage under the City's National Pollutant Discharge Elimination System (NPDES) permit that applies to the subject site and is regulated by the RWQCB. This Plan does not address compliance with those additional regulatory requirements, and anticipates that proper implementation and adherence to such requirements will be observed. Discharge may be regulated by any or all of the following: the City of Sacramento, Sacramento Regional County Sanitation District, and RWQCB.

As a general rule, soils in certified areas may be utilized for further construction purposes within the same legal parcel. Above-RG soils, if encountered, would be handled in accordance with the measures set forth in this Plan for Impacted Soils.

Development Groundwater extracted during the course of for construction control will be tested. Development Groundwater that meets discharge requirements will be discharged into the sanitary sewer under the proper permitting requirements. Development Groundwater that exceeds discharge requirements will be treated in accordance with the applicable permits prior to discharge into the sanitary sewer.

In all events, were Impacted Soil and Development Groundwater that are above-RGs are encountered, the Property Owner and DRV will be notified immediately and work shall stop in the impacted area. All reasonable efforts will be made to relocate work to other areas, where possible, to allow for determination of responsibility of removal, before such removal occurs.

Contractors shall not remove or handle Impacted Soil or Development Groundwater that exceed RGs unless directed by the Project Proponent following consultation and direction from the Property Owner(s) and DRV. Other parties may have the responsibility to handle, remove and dispose of Impacted Soil and Development Groundwater that exceed RGs found to be impacted with historic contamination.

2.2 Site Constituents of Concern

Subject to the completed remediation processes performed by UPRR, past Constituents of Concern included heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPH). Both friable and non-friable asbestos-containing materials (ACM) were also encountered in fill soils, transit pipes, and industrial waste buried on-site.

3.0 Development Soil Handling

3.1 Rationale for Development Soil Management

As a general rule, soils at the Certified Area have been certified by DTSC to have met relevant RGs, unless indicated otherwise. Nonetheless, the procedures in this Plan apply to any Development Soil and Development Groundwater encountered within the Certified Area, regardless of the certification status or remedy implementation.

All Development Soil that are below RGs may be either returned to the same excavation from which it was excavated or relocated to another area of the Master Development for which the same cleanup levels apply subject to the prior written approval of DRV. No soil above RGs should be returned to an excavation. Above RG soil should be properly characterized and handled, as described in later sections of this Plan.

In cases where Development Soil are relocated to areas owned by different Property Owners from the Project Proponent or area of property where material was originated, agreements with all affected Property Owners must be achieved, DRV shall have approved of such movement, and soil sampling protocol to establish soil conditions may be required as necessary as determined by DRV. The sampling protocol will be in accordance with the procedure set forth in this Plan, the intent of which is to ensure, where necessary, that soils transported meet owners agreements, the requirement of DRV, and the respective the RGs for the receiving Study Area as well as the originating Study Area.

Soils shall not be exported to any other sites outside the Master Development boundary for any purpose other than disposal at regulated facilities, unless prior approval from DTSC, DRV and the Property Owner is secured. Subject to the above movement limitations, for the purpose of transportation within the Master Development, properties owned by separate Property Owners are considered a single unit subject to the Master Development overall approvals.

3.2 Site Soils and Area Use Classification

Development Soil will be classified into 3 general categories:

1. Non-Impacted Soils: These soils represent the general rule. All soils at the Certified Area are considered Non-Impacted Soils unless proven otherwise. These soils are excavated from certified areas.

2. Suspect Soils: Soils excavated from certified areas with apparent indications (through the presence of discoloration, odors, PID, suspect material and debris, or similar indicators) that RGs may be exceeded as evident from site experience and observations of the EOPM or qualified designated personnel.

3. Impacted Soils: Suspect Soils which exceed RGs as determined by laboratory analytical results or which are expected to exceed those RGs as evidenced by excessive discoloration, presence of ACM, notable distinctive odors, sheen, or free product, as determined by the EOPM or qualified designated personnel.

The Development Soil handling methodology has been planned to follow a methodical execution that maintains adherence to the approved regulatory framework while simultaneously allowing General Contractors sufficient ability and clear process to implement its construction activities. In order to achieve this goal, a Project Proponent for a given Project must

establish areas for laydown, access, construction, and support purposes as necessary for the Project given the specific Project details and scope.

Prior to starting work, as part of the Approved Project Addendum, a Project Proponent must reach written agreement(s) with DRV on all necessary encroachments, access, staging, laydown, work, handling, management and support areas.

These areas can be modified from Project to the next as the need arise, with the approval of the relevant parties.

1 Construction and transportation access roads: These roads are to be within the Master Development to be used strictly for access and transportation purposes. Use of these roads does not require implementation of DOT regulations on public roads. This use includes crossing public roads within the Master Development, including 7th Street and other recently constructed roads, for the purpose of connecting between two or more parcels.

2 Standard wash and decontamination areas: Locations that are established to inspect and clean trucks, vehicles, and other heavy equipment prior to departing from impacted areas to non-impacted areas or from on-site to off-site areas. As a general rule, no vehicle is permitted to cause the generation of debris outside the Master Development or on-roads within the Master Development. Such responsibility is strictly the General Contractor's responsibility.

3 Access to public roads: Access points to public roads should be identified and used for general construction purposes. Should the need arise for the transport of regulated material or waste on public roads, the relevant regulations governing the transport of hazardous material, found at Title 49 of the Code of Federal Regulations, will be followed, except for cases where public roads are used for crossing from one development area to another. In situations where direct or diagonal crossing is needed, DOT regulations will not be required or implemented. Public roads may be temporarily closed for public use in the event transportation of impacted material is necessary along the entire length of the closed road. In this case, DOT regulations will not be required during the period of closure. DTSC, DRV and relevant property owners shall be informed of this use and closure prior to implementation and approval shall be granted prior to such implementation.

4 Concrete/asphalt processing: Areas designated for appropriate concrete and asphalt processing, to be reused by a given Project as needed.

5 Permanent soil staging: These are holding areas where Non-Impact Soils for reuse at the Master Development in excess of the Project's need will be held for subsequent use by other Projects.

6 Construction route requiring stabilization with crushed rock: These are construction areas that may be needed by a given project requiring some road stabilization to enable use.

7 General staging: This will be the overall staging areas for a given Project, where staging of construction material and equipment will occur.

8 Groundwater treatment access: This area is to be designated should the need arise for groundwater treatment, if needed.

9 Groundwater treatment facility: Where needed, a temporary treatment facility may be used for the treatment and discharge of Development Groundwater. A groundwater extraction and treatment plan for Development Groundwater must be approved by DRV, DTSC and RWQCB prior to implementation.

10 Groundwater treatment staging: This is an area that may be used for staging any needed vessels, filters, tanks and equipment/material required for groundwater treatment and control.

11 Soil treatment: This area is to be used for the staging of Impacted Soils; treatment, testing, and further characterization; and staging for Impacted Soils scheduled for off-site hauling by truck or rail.

12 Soil staging: This area is to be designated for storage of Non-Impacted Soils to be placed back into the respective Project.

13 Suspect Soil staging: This area is to be designated for the holding of Suspect Soil.

14 Trailer area: Areas to be used for housing all construction trailers, parking for construction crews and management staff, as well as staging of small support equipment, such as generators, portable bathrooms, and similar facilities.

3.3 Contractor's Excavation and Handling Approach

Prior to the commencement of work on any Project, as part of the Approved Project Addendum, the Contractor will submit to DRV and the various property owners whose property will be accessed or impacted, a plan that identifies all needed elements. These elements include all soil excavations, soil and material hauling and transportation, groundwater extraction and health and safety controls, among other Project requirements. This plan shall be prepared by the General Contractor in accordance with the conditions set forth in this Plan.

3.4 Project-Specific General Handling Conditions

Along with the Contractor's plan, Project-specific general handling procedures for handling various types of potential material that could be encountered should be prepared. These types of materials include vegetation, metal and wood scrap, asphalt deposits, and bricks.

As a general rule, the following will be implemented:

1 No material, soil, waste, water, debris, equipment of any kind will be transported or placed onto properties owned by others, without written approval by said other property owner and DRV.

2 All categories of Development Soils, waste and material generated by a given owner shall be retained on such owner's property only. If an owner is not DRV, such soils, waste and material may be transported onto DRV owned property in designated areas approved in writing by DRV and only following written encroachment and use agreements with DRV. No soil, waste or material shall be placed onto or passed through any DRV owned property by other owners, either in a temporary or permanent state, without a written approval and encroachment agreement with DRV.

3 All hazardous and non-hazardous waste manifests of soils generated will be signed by the Project Proponent.

4 Impacted Soils for the area from which they were excavated may be placed in a designated area within the Property Owner's property where they were generated. Subject to the prior approval of DRV, these soils may be relocated to other study areas with RGs that such soils do not exceed, provided there is sufficient analytical data to demonstrate that the soil is below all RGs of the receiving study area, or may be treated at designated areas to meet such goals, where possible. These soils may be transported off-site for disposal in accordance with applicable regulations should they fail to meet RGs for their source or destination areas.

5 Implementation of the Project's storm water pollution protection plans and preparation and submittal of the associated reporting requirements (e.g., Notice of Intent, Annual Reports, Notice of Termination) will be the responsibility of the Project Proponent.

6 The locations of the completed excavations, soils and material placed and generated stockpiles will be quantitatively determined using surveying appropriate methods, if and where required by Property Owners and Project contract documents.

7 In the area where Suspect Soil, Impacted Soil and any other impacted materials were held, the final clearance of the surveyed volume will include additional scraping of at least 3 inches of soils below originally surveyed grade. As such, surfaces in these areas will be prepared, graded and surveyed for original grade elevations prior to depositing any soils.

8 Where and if needed, a protective cover, such as plastic sheeting, will be used prior to stockpiling and handling soils. Plastic sheeting may be needed to protect original ground from newly deposited Impacted Soils or for purposes of complying with the requirement of the Project's storm water pollution prevention plan, as necessary. Specifically, 20 mil HDPE plastic sheeting and runoff berms will be used if soil moisture is such that free liquid is released from Impacted Soils. Refer to Section 4.1 for the handling and management of stockpiled soils to prevent migration of contaminants.

9 Fugitive dust emissions shall be controlled in accordance with applicable regulations, and shall be maintained at acceptable levels per the project-specific health and safety plan and existing regulations using water or other appropriate surface treatment.

10 Based on the history of industrial activity at the Master Development, workers may encounter significant debris, industrial deposits, and foundation remnants in fill soils. Debris may consist of scrap metal associated with the railroad industry, concrete fragments and foundation pieces, rock fragments such as granite of various sizes, and wood debris. Brick and asbestos containing material (ACM) may also be encountered. ACM-free debris does not pose an unacceptable risk to construction workers. Bricks on their own are not a cause of concern, unless coupled with other factors with known impacts. In some areas in the past, brick and ACM have been associated with foundry waste that generated Impacted Soils that have required remediation. In the event bricks or ACM are encountered, the EOPM must be notified. The EOPM will assess if the need for additional assessment is required, will determine the need for material handling procedures and, as appropriate, direct brick and/or ACM to be placed in a secure storage area, as described hereafter. All impacted brick material and asbestos waste will be isolated and disposed of at a regulated facility in accordance with applicable regulations. Such material will be properly secured, tested and handled at a designated area.

4.0 Development Soil Management Protocol

4.1 Holding Areas

During development construction activities at a Project, workers may encounter Development Soil that have significant and distinctive visual or odor indications of being Suspect Soils that may exceed RGs for the study area from which they were generated. Such Development Soil may fall under the categories of Suspect Soils and/or Impacted Soils. The EOPM must be immediately notified if such conditions are encountered.

Each Project, depending on specifics, will establish holding areas for known Impacted Soils and for Suspect Soils. The location, access, and maintenance of these areas are to be agreed upon among DRV, Property Owners and/or Projects Proponents. The area where Impacted Soils is to be held shall be designated as an exclusion zone and will be limited in access to authorized personnel only. In the event that Suspect Soils are encountered, upon direction from the EOPM, they must be transported to their respective holding areas pending final determination and disposition.

The specific size, location and construction details of these areas will be determined in coordination with the scheduled General Contractor, DRV and the relevant Property Owners based on the location and timing of active construction activities. Agreements with DRV and Property Owners are required for any use and placement of soils in these areas.

The holding areas will be designed to receive Suspect Soil from transport vehicles as determined by the General Contractor and agreed to by DRV, the landowners and Project Proponent(s). Soils held in the exclusion zone shall be stabilized if needed (e.g., covered with plastic sheeting or sprayed with a quick hardening foam, or equivalent) as soon as practical after being placed within the secure storage area, until it can be demonstrated that the soil meets applicable RGs. Appropriate SWPPP responsibilities will be allocated based on use between projects. The holding areas will be clearly marked and staked.

Suspect Soils held in their respective holding areas are intended to remain for a brief period of time, and shall be stabilized only if needed in compliance with dust control and SWPPP measures. This action is intended to limit release of wind-blown dust from the stockpiles during the holding period. All soils placed within the holding areas pending disposition shall be segregated in a manner that avoids commingling of different constituents.

Within the holding area, Suspect Soil will be sampled under the direction of the EOPM in accordance with soil profiling procedures established in this Plan. If Suspect Soils within their respective soil staging area are characterized as containing Constituents of Concern above RGs, these soils will be moved to the area where Impacted Soils are held, and will be placed on plastic sheeting as appropriate, as soon as possible.

The respective exclusion zones for a given Project will be restricted to authorized personnel only with 40-hour HAZWOPER training for workers and the needed training for managers. If ACM is present, ACM regulations pertaining to certification and training of workers shall be implemented. The EOPM shall be responsible for coordinating removal and/or treatment of soil stockpiled in the holding area that contains constituents in excess of RGs and that requires handling, disposal and/or treatment.

4.2 Development Soil Stockpile Types

This section includes the defining characteristics of generated stockpiles for Non-Impacted Soils, Suspect Soils and Impacted Soils and the respective handling and management procedures to be followed.

All generated dynamic stockpiles for the various categories of encountered soils (Non-Impacted, Suspect and Impacted) are temporary. Final stockpiles are only Non-Impacted Soils, and are held for long-term re-use on-site.

Suspect Soils stockpiles that have been generated will be evaluated or characterized as soon as practicable to facilitate construction expediency and appropriate management, but no later than thirty (30) days after stockpile formation unless the stockpile is moisture conditioned and fully wrapped in plastic sheeting, or an approval for a longer duration has been granted by the Project Proponent. After a Suspect Soils or Impacted Soils stockpile has been characterized, it will be handled according to its classification and applicable regulations.

The volume and placement of individual stockpiles will depend on its category.

- Non-Impacted Soils stockpiles: No sampling will be required for these Non-Impacted stockpiles if they remain on Project Proponent property and are returned to their initiating excavation. These may be up to approximately 5,000 cubic yards in volume, and may be initially placed in their appropriate areas as agreed upon by the General Contractor, Project Proponents and Property Owners. These stockpiles will be constructed to allow for visual inspection. Once a stockpile reaches a volume of 5,000 cubic yards, a second stockpile may be started adjoining to it to allow for any needed management on the first (if any) while the second is being constructed. As the second stockpile is constructed, the first will be reshaped and surveyed to allow the placement of another lift of up to 5,000 cubic yard on top of the existing soils. The process is continued until mass excavation is finalized for a given phase. If these Non-Impacted Soils stockpiles are relocated to be used for another purpose in different areas, owned by a different Property Owner or with more restrictive RGs, these Non-Impacted Soils stockpiles will be sampled for the relevant Constituents of Concern using 1 discrete sample per 500 cubic yards. In all cases, soil stockpiles will be surveyed and tracked to establish record of generation, handling, deposition and destination.

- Suspect Soils and Impacted Soil will be moved to the areas designated for Suspect Soils and Impacted Soil stockpiling, respectively.

- Suspect or Impacted Soils stockpiles will be located in their respective area in volumes not exceeding 500 cubic yard piles, as needed and as space allows, and will be identified by the excavation that the soil originated from. Soils that potentially have the same Constituents of Concern as determined by laboratory analytical results will be combined to form the same stockpiles. Suspect Soils stockpiles that are found to be Impacted Soil will be moved to areas designated for Impacted Soils upon characterization and profiling, and will remain pending their final disposition. These stockpiles will be sampled with 2 discrete samples to be analyzed for the subject Constituents of Concern for every 500 cubic yard, as needed. As previously indicated, these stockpiles will be sampled and characterized as soon as possible, but no later than thirty (30) days from formation unless the stockpiles are moisture conditioned and fully wrapped in plastic sheeting, or if additional time is approved by DTSC and Property Owner.

4.3 Stockpile Profiling

Suspect and Impacted Soils stockpiles will be profiled by collecting appropriate samples as previously discussed. These stockpiles will remain until the soil reaches its final disposition.

Non-Impacted Soils may be used as fill within the Master Development, so long as it meets the RGs for its respective area of use, and agreements between DRV and the relevant parties exist for such use.

Other than customary use of Non-Impacted Soils within the Certified Area, additional scenarios that may generate stockpiles of Non-Impacted Soils include the following:

- The characterization of a Suspect Soils stockpile indicates that no Constituents of Concern are present above the RGs for the area of intended reuse and such soil shall thereafter be deemed Non-Impacted Soil and handled in accordance with this Plan.

- The characterization of a treated stockpile of soil indicates that the Constituents of Concern in the soil have been remediated to below the RGs for the area of intended reuse and such soil shall thereafter be deemed Non-Impacted Soil and handled in accordance with this Plan.

- Construction-related excavation or grading in a Non-Impacted Soils will generate a stockpile of Non-Impacted Soils below RGs for the area of intended reuse. This could include removal of a Non-Impacted Soils overburden layer to access Impacted Soils and grading for drainage purposes.

All Non-Impacted Soils stockpiles will be labeled with a sign designating it as Non-Impacted Soils in accordance with this Plan. Based upon the criteria established herein, no Impacted Soils for the area of intended reuse or debris (including, but not limited to ACM) will be commingled with Non-Impacted Soils or Suspect Soils stockpiles.

Soils stockpiles may be an accumulation of smaller stockpiles that meet the same RGs. Project Proponents will retain information sufficient to allow it determine which soils (by quantity) originally exceeded the RGs for the area from which they were excavated and which soils (by quantity) met those goals when they were excavated.

4.4 Development Stockpile Management

Fugitive dust emission controls, volatile chemical emission controls, and storm water BMPs will be in place for each stockpile as follows:

- ***Fugitive Dust Emission Controls –*** During the wet winter months, fugitive dust emissions from stockpiles is not expected to be a concern. During the active construction (dry) season, the General Contractor will implement standard dust control procedures for earthwork construction. These dust control procedures are anticipated to follow all applicable Fugitive Dust regulations. The dust control procedure for stockpiles will at least entail applying water with a sprayer on a water truck, with or without a tackifier additive, to the stockpiles, or an equally protective measure that will meet applicable regulations.

- ***Volatile Chemical Emission Controls –*** The control of chemical emissions (if any is

encountered) will be dictated by the allowable limits established in the General Contractor-supplied Health and Safety Plan (for worker protection), the Air Monitoring Plan (for protection of the nearby public), or the SMAQMD. Specifically, the SMAQMD requires that the stockpiles be covered with plastic sheeting if the soil contains greater than a set threshold (50 mg/kg, to be updated using most current standard at the time of Project) for total VOCs, which includes total purgeable petroleum hydrocarbons. Pending analytical results, any stockpile that is judged to likely contain VOCs at a concentration above applicable threshold will be covered with plastic sheeting as soon as practicable. If a given soil stockpile is judged unlikely to contain Constituents of Concern above this threshold based on analytical data, field observations, and/or measurements, emission controls will not be required for that stockpile.

- ***Storm Water BMPs –*** During the wet winter months and any rainy periods of the construction (dry) season, typical construction storm water BMPs will be implemented in the stockpile holding areas and around any impacted or suspected impacted stockpiles, to minimize runoff and erosion of stockpiles as outlined in the Project's SWPPP.

  Some of the storm water BMPs may include: (1) placing silt fences and straw bales at the base and around the perimeter of the stockpile; (2) compacting the surface of the stockpile to reduce the amount of loose soil that creates sediment and erosion problems; and (3) covering stockpiles with plastic sheeting. Provisions of the SWPPP stipulate that sediment and COC runoff from the site will not be permitted.

  The storm water BMPs for the reuse soil stockpiles will be implemented like a typical Non-Impacted Soils grading project to prevent nuisance associated with storm water and sediment runoff. Given the chemical nature of reuse stockpiles, storm water BMPs to control contamination of storm water runoff due to their presence are unlikely to be necessary.

4.5 Development Stockpile Locations

Stockpile location and placement within the Project area will be specifically determined based on Project-specific needs, and will take into account the following:

- ***Proximity to the Property Line –*** Stockpiles will be constructed away from property lines to the extent possible, to reduce the potential nuisance to off-site persons and entities from dust, noise, and emissions without significantly restricting construction activities.

- ***Proximity to Track 150 –*** The remaining portion of Track 150, east of 7th Street, as relocated at the time of implementation, has been designated for railcar loading, if and when needed. Therefore, soil that is not eligible for reuse at the Master Development and has been characterized for off-site disposal to a Class I facility and/or soil that requires treatment may, subject to DRV prior approval, be staged along Track 150, east of 7th Street, provided appropriate access and use agreements with DRV, affected property owner(s) and UPRR (limited to the providing of rail service) are secured.

- ***Excavation Sequencing –*** The locations selected for stockpiles will depend on the planned excavation sequencing, so that stockpiled soil does not interfere with remedial excavations or associated activities.

- ***Proximity to Treatment Areas –*** Impacted Soil that is characterized as requiring treatment, if any, will be staged close to the applicable treatment area, likely located near Track 150 (pending approved property owner agreements), whenever possible. Excavation sequencing will also impact the locations of treatment areas.

- ***Original Grade Distinction –*** Before Suspect or Impacted Soils is stockpiled in any given area, the original grade elevations will be appropriately surveyed and will be distinguished with a sheet of plastic such that the original grade may be restored without leaving Impacted Soils or inadvertently over-excavating the area when removing the stockpile. These stockpile areas may also be excavated to a shallow depth of approximately 3 inches below the original grade to ensure that Impacted Soils, if any, has been removed and handled according to the provisions of this Plan.

4.6 Suspect or Impacted Stockpile Tracking & Recordkeeping

The EOPM, or other qualified designated personnel, will oversee the implementation of a reliable tracking and recordkeeping system to efficiently manage each Suspect and Impacted Soil stockpile generated. This is expected to include frequent global positioning system (GPS) surveying and mapping of stockpiles to produce stockpile maps. A stockpile needs to maintain a unique identity throughout the characterization process.

4.6.1 Stockpile Tracking

The types of information associated with each Suspect and Impacted Soil stockpile will include:

- An identification number that links stockpiles with the excavation source;

- The location of the stockpile within the Project utilizing a GPS such that one stockpile is not mistaken for another;

- The date(s) generated;

- Sampling information, if any, including the number of samples collected, the date of sampling, and the analyses requested (information contained in a typical chain-of-custody document); and

- Analytical data, if any, that characterizes the stockpile and facilitates its disposition.

A weatherproof sign will be posted in each stockpile that identifies:

- The stockpile by number;

- The Constituents of Concern expected in the soil, if any;

- The excavation number that was the source of the soil;

- The date the stockpile was sampled, if any; and

- The disposition of the soil once it is characterized.

4.6.2 Stockpile Disposition Decision Making

Before final disposition for a stockpile is determined, the following will be reviewed:

- The source and quantity of the soil (excavation identification), including the study area from which the soil originated;
- The expected Constituents of Concern, if any;
- Whether or not ACM was visually detected in the soil either visually or though appropriate testing;
- The sampling frequency from the stockpile;
- The analytical data from the stockpile; and
- Observations and field screening data from daily reports documenting the initial excavation of the soil.

Throughout work on Projects, a working database and related records of all Suspect and Impacted Soils stockpiles (as well as re-use stockpiles or as required by contract documents or owner agreements) will be maintained. In addition to the working database and records keeping, each stockpile will have a posted sign with the identification and characteristics of the stockpile.

4.7 Control of Storm Water, Erosion, Dust, and Volatile Chemical Emissions

The procedures for controlling storm water runoff, erosion, dust, and emissions must be protective of the environment and human health both on and off site, but must also be practical and implementable. In general, stockpiles will not be covered with plastic sheeting unless it is required to reduce emissions or fugitive dust in accordance with permit requirements and health and safety requirements or as required by this Plan. However, if encountered, stockpiles with high VOCs and/or volatile TPH emissions will be covered as soon as practicable in accordance with applicable requirements.

The control procedures during the dry construction season will be different from those of the wet winter months. The basic requirements for the control procedures at any time of the year will be to:

- Prevent off-site and on-site migration of contaminants through storm water, sediment, or dust;
- Control fugitive dust emissions in accordance with the SMAQMD Fugitive Dust Rule 403, the HSP requirements, local grading ordinance requirements, and other applicable regulations;
- Minimize cross-contamination on site; Control volatile chemical emissions in accordance with SMAQMD requirements and the Health and Safety Plan;
- Perform adequate storm water control and monitoring, as described in the SWPPP, to ensure that inappropriate storm water runoff and run-on does not occur;
- Perform adequate site and perimeter control of fugitive dust emissions and volatile

chemical emissions.

- No construction related activity will be conducted for this Project unless covered under an approved SWPPP for the area where such activity will occur.

5.0 Development Activities in Non-Certified Areas

This Section 5 applies to any Project within the Non-Certified Areas. The following constitutes the general process to address characterization, trenching, and backfilling activities for a Project within Non-Certified Areas, such as Central Shops Study Area and the Excluded Triangle east of Vista Park.

A Project(s) in the Non-Certified Area can only commence after the Project Proponent obtaining written approval from DRV, the Property Owner affected by the Project (s) and DTSC of an Approved Project Addendum, which also address the criteria set forth in this Section 5. In addition to its own internal approval process, DRV's approval may include the gaining of UPRR's approval of the Project due to UPRR's ongoing remediation obligations in such areas which may include adherence to additional processes required. Project Proponents must assume that all soils, including soils at depths deeper than previously remediated or characterized by UPRR, encountered during the course of a Project with in the Non-Certified Area are Suspect Soils, and will be subject to the characterization protocol described below (which shall be addressed in and supplemented by the Approved Project Addendum for such Project):

1 Following concrete removal, and prior to excavating soils in the designated areas, one discrete soil sample will be collected per 500 cubic yard of in-situ soils. The samples will be collected at various depths from pits excavated using traditional backhoe equipment. Areas and depths not previously remediated or characterized will be particularly targeted for characterization.

2 The samples will be analyzed for the Constituents of Concerns required by the DTSC.

3 All soils excavated for test pits will be returned to their respective excavations pending future removal during utility trenching, unless found to exceed RGs.

4 Soils exceeding RGs will be marked as impacted, and will be separated from all other soils.

5 Impacted Soils will be moved to a designated exclusion area for subsequent handling prior to their final disposition either through on-site treatment and/or off-site disposal, per the Approved Project Addendum.

6 Once all sampling results are available, Project Proponents will excavate soils to the lateral extent and depth needed.

7 During construction activities, Suspect Soil will be stockpiled separately from the rest of the excavated soils, to be removed subsequently to the holding areas.

8 Impacted Soils will be separated as previously noted, and temporarily held in the construction area pending transport to the area designated for impacted soils.

9 All remaining excavated soils will be stockpiled in the construction area for additional confirmatory stockpile sampling.

10 An adequate number of samples not to be less than 1 discrete per 500 cubic yards will be collected from the excavation spoils removed from a given operation and analyzed for the required Constituents of Concern. Spoils are soils that are being immediately handled and returned to the excavation areas. The actual number of samples shall be increased if warranted by soil conditions, as evaluated by the EOPM.

11 Non-Impacted Soil may be reused within the boundaries of the subject Project site as needed.

6.0 Concrete and Asphalt Processing

Concrete and asphalt debris generated during construction may be recycled through on-site or off-site crushing. Debris coated with oil or sludge will be segregated and disposed of at an appropriately regulated facility prior to crushing. Bricks will not be included in the concrete and asphalt crushing, unless agreed to specifically by the Project Proponent, General Contractor, and Property Owner.

On-site crushing will likely utilize a transportable concrete crusher and occur within the area designated as the asphalt and concrete stockpile area. The on-site recycling/processing plant will be operated and permitted by the General Contractor, and will be temporarily located in a designated area agreed upon by the Project Proponent, General Contractor, and Property Owner.

Project Proponent will verify that the General Contractor or the party responsible for operating the transportable concrete crusher is a General Contractor or facility licensed to perform this task. Dust control measures will be implemented for on-site crushing activities in accordance with applicable regulations, including those of SMAQMD. Any exceedance of fugitive dust emissions from crushing activities will result in implementing engineering controls such as water spraying during the crushing. In addition, crushing will be performed in accordance with City of Sacramento noise ordinances and during permitted work times.

The crushed concrete and asphalt will be a potential source of fill material for backfilling excavations, covering haul roads, and miscellaneous fill purposes on site. On-site use of the recycled concrete and asphalt is an environmentally responsible reuse of a valuable fill material. Additionally, by using the crushed material as fill at the site, the transportation of import fill material will be reduced.

In areas where significant discoloration or odors are noted, indicating the presence of hydrocarbon or similar organics at a level potentially exceeding acceptable thresholds, such material will be segregated and placed in the same area as Suspect Soils.

7.0 Wells and Associated Remediation Systems

The Master Development contains an extensive network of ground water monitoring and extraction wells due to the presence of historic contamination. These wells are a part of the ongoing remediation activities by UPRR pursuant to regulatory order(s) and approved plans.

The monitoring and extraction wells are required by DTSC to be protected and preserved and cannot be removed without DTSC concurrence. Further, well installation, protection, and removal are subject to ordinances established by Sacramento County.

However, replacement, adjustment, and relocation of monitoring and extraction wells, vapor probes, and all associated remediation systems that are in conflict with development, are expected to occur. Such work is permitted to occur only following written approval by the Project Proponent, DRV and Property Owner, coordination with UPRR, written approval by DTSC, and appropriate permitting in accordance with all applicable regulations.

DTSC, DRV, Property Owners, and Project Proponents should be notified of any apparent conflicts between intended activities and existing wells as soon as it is known. Any damage to wells or remediation systems is the responsibility of the General Contractor to repair, in accordance with applicable regulations.

7.1 Encounter of Previously Abandoned Monitoring Wells

Throughout the remediation of the Master Development by UPRR, a number of ground water monitoring wells, probes, and similar items have been abandoned. It is expected that, in accordance with County of Sacramento Environmental Management Department (County) requirements, the top five feet at these features was over excavated and a concrete cap was installed at 5 feet below ground surface. If the site activities disturb the well caps, then DTSC should be notified and a replacement cap must be installed a minimum of 2 feet below finish grade in accordance with County requirements.

7.2 Replacement/Relocation of Wells

Any wells intended for abandonment or relocation must have an approved work plan by the DTSC and DRV and all applicable permits, and must occur per all applicable regulations. **No wells or other remediation systems may be altered or affected in any way without the approval of DRV first, and the written approval of UPRR and DTSC**. **The protection of these systems is the sole responsibility of the relevant Project Proponent.** The location of the relocated wells must be agreed upon with DRV and to the satisfaction of the regulatory agencies and UPRR. Replaced or relocated wells will be located where their impact on future or ongoing construction projects will be minimized, to the greatest extent technically feasible, in coordination with DRV, the landowner, regulators and UPRR. New well locations will be determined and wells will be installed as soon as possible. All remediation systems, including conduits, pumps, power lines, discharge pipes, gauging instruments, and any associated elements used for the satisfaction of regulatory agencies will be maintained and protected. Any system, removed, modified or replaced in part or in full, will only be modified following DRV, DTSC, Project Proponent, Property Owner(s) and UPRR written approval.

8.0 Dewatering Management Plan

Given the proximity of the Master Development to the Sacramento River, it has been established that the groundwater table elevation beneath the Certified Area is determined primarily by Sacramento River stage elevations. Based on historic groundwater elevations and anticipated river stage, some form of groundwater control may be needed for deeper excavations.

Groundwater may not be extracted, treated or discharged in any way without an approved plan submitted to DTSC, RWQCB, Property Owner(s), and Project Proponent. Such written groundwater control plan shall be prepared by the General Contractor and submitted for approval prior to implementation. Contractor has the sole responsibility to estimate volumes, rate, location, and type of groundwater control, as well as securing all needed discharge permits, including City, Regional San, and State permits.

9.0 Health and Safety Guidance

This brief section describes the general health and safety guidance that are to be followed by General Contractor's performing Project construction activities. The General Contractor shall provide a Project- specific Health and Safety Plan to be approved by Project Proponent(s). In general, trained personnel shall assume work in apparently contaminated areas until potential hazards of such areas are appropriately evaluated.

10.0 Reporting

Upon completing all phases of work, Project Proponents will prepare a summary report that will include documentation of all completed activities. Routine reporting, at an agreed upon frequency between Property Owner and Project Proponents, including stockpile tracking, will be issued. Completed reports will be such that they include sufficient details, information, and activities required. At a minimum, the following will be included in the final report:

1. Summary of project scope
2. Summary of project schedule
3. Summary of project team
4. Log of soil and groundwater volumes
5. Relevant surveying and staking information
6. Relevant logs and observations
7. Qualitative and quantitative field observations
8. Laboratory analytical certificates
9. Waste disposal manifests and bills of lading
10. Relevant photographs
11. Regulatory correspondence and agreements
12. Project closeout punch list (specific to soil and groundwater management)
13. Copies of approved submittals
14. Copies of Monthly Reports

Routine reports at an agreed upon frequency will include:

1. Activities completed
2. Soils, material and/or groundwater handled
3. Interim and final disposition
4. Relevant photographs
5. Qualitative and quantitative observations, if any
6. Laboratory analytical results, if any
7. Regulatory correspondence, if any
8. Waste disposal manifests and bills of lading
9. Approved submittals
10. Relevant surveying and staking information

Each report will be issued no later than a specified date to be agreed upon by the parties.

Exhibit A
Master Development

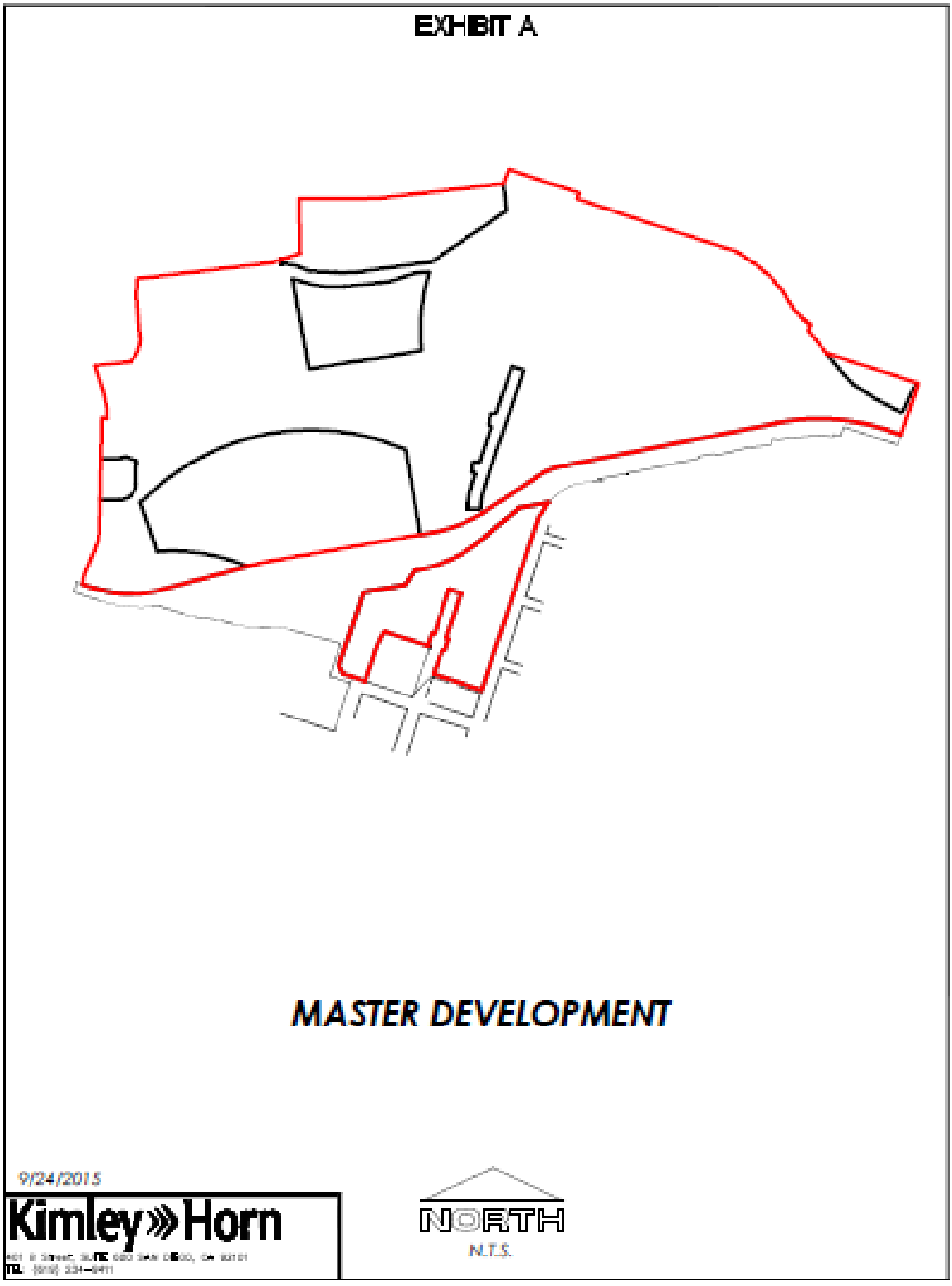


Exhibit B
Certified Area

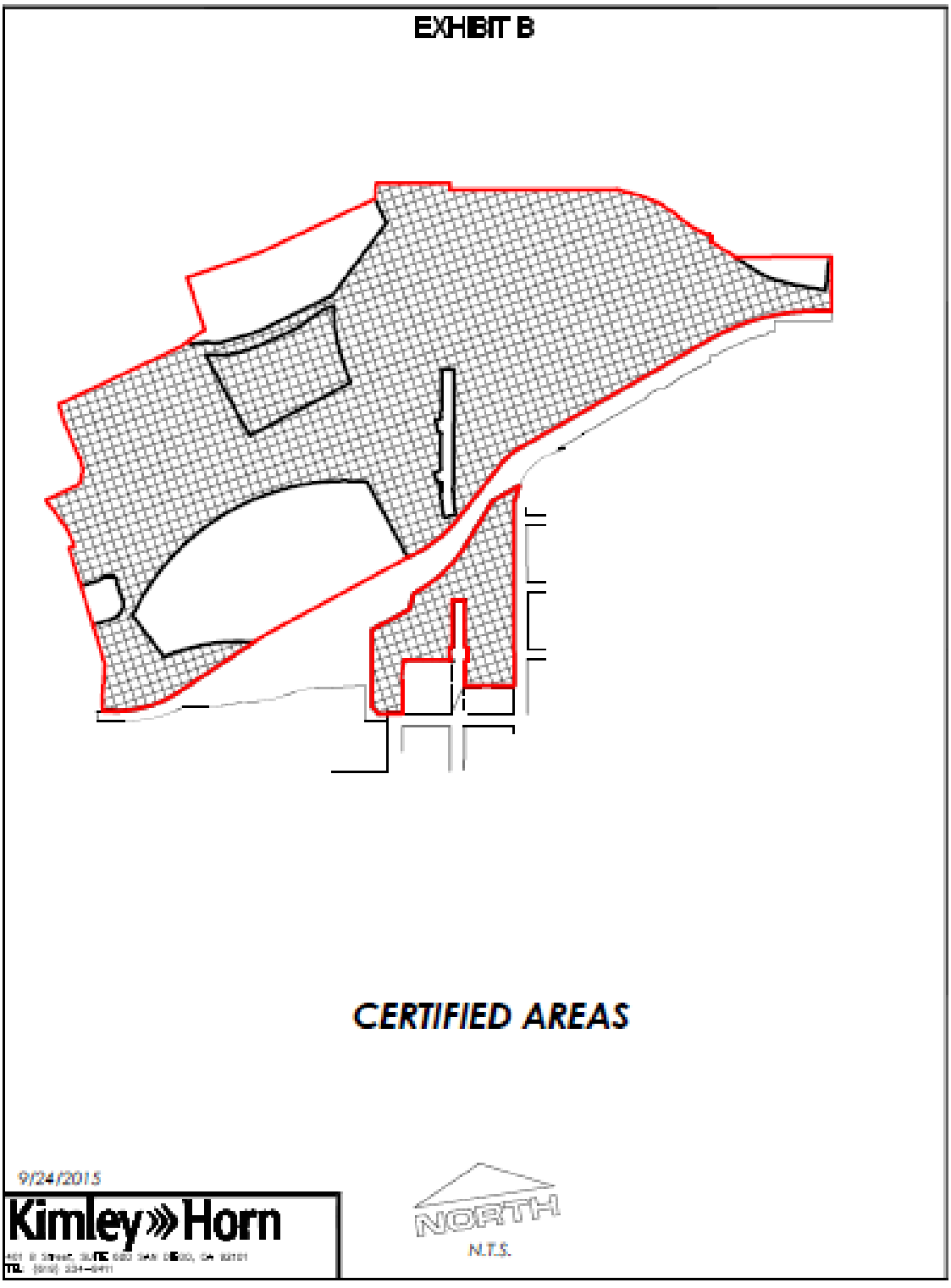


Exhibit C
Non-Certified Area

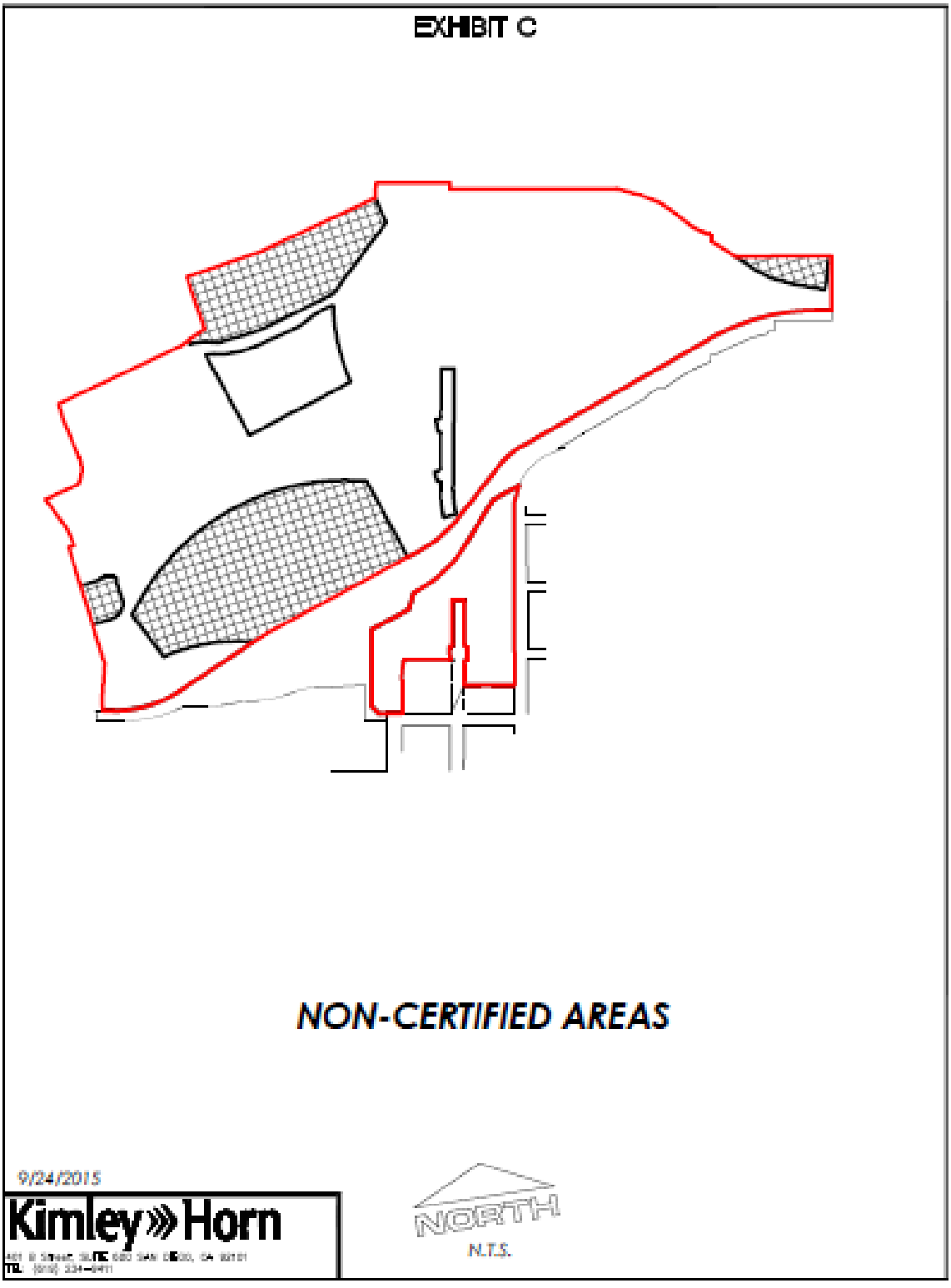


Exhibit D
Railyards Soil Study Areas

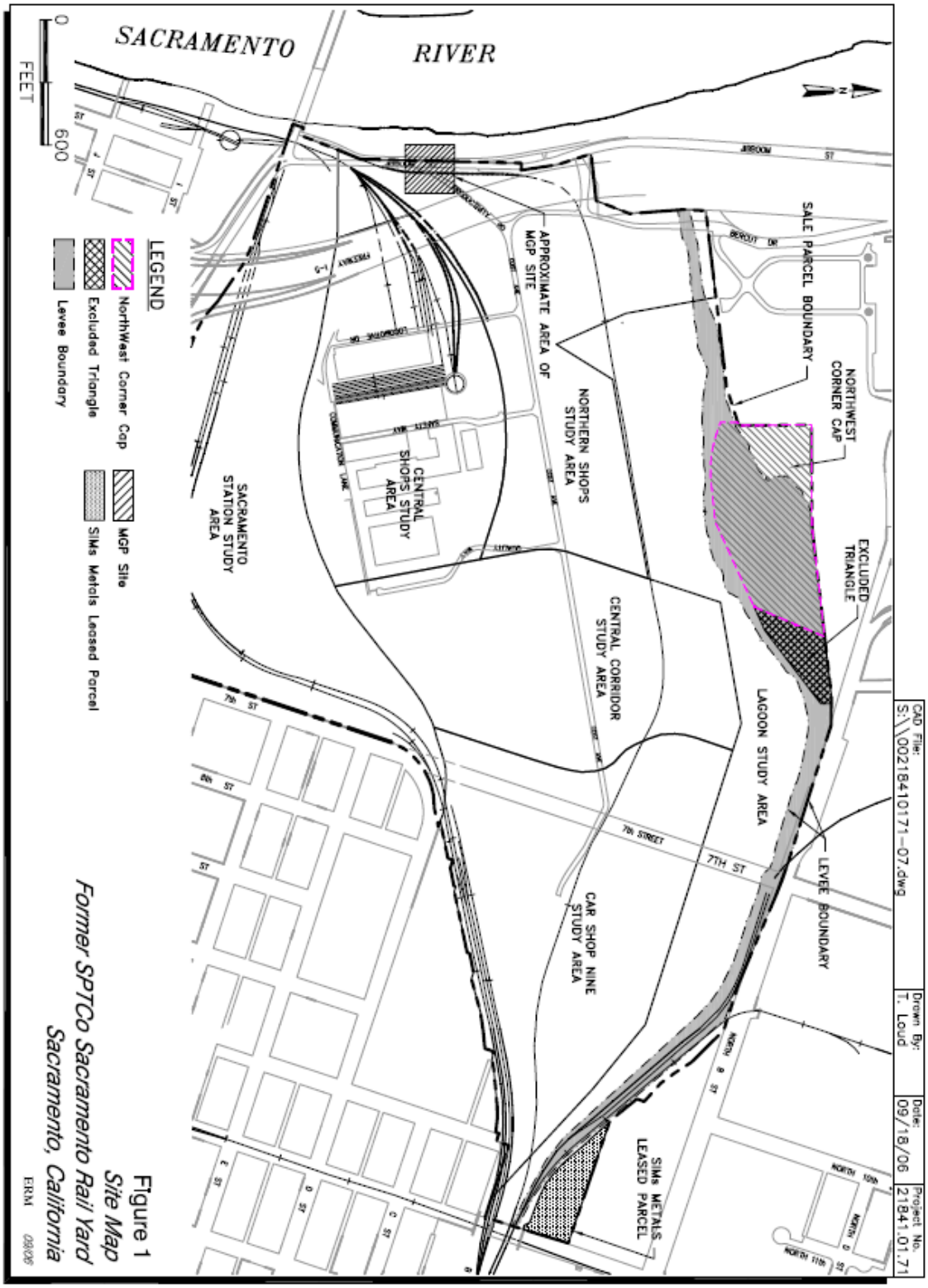


Exhibit E
Current Railyards Remedial Goals for Each Major Study Area
(See table on following pages)

Exhibit 3
Site Soil Remedial Goals
former SPTCo Sacramento Railyard
Sacramento, California

		Soil Study Area					
		Sacramento Station Study Area[1]	Lagoon, Central Corridor, Car Shop Nine, and Northern Shops Soil Study Areas [2]	Lagoon Proper Area[3]	Lagoon Northwest Corner Study Area [4]	Central Shops [5]	
Chemical Class	Constituent	Remedial Goal (mg/kg)	Remedial Goal (mg/kg)	Remedial Goal (mg/kg)	Placement Limits (mg/kg)	Groundwater Protection Remedial Goal[6] (mg/kg)	DTSC-Approved Remedial Goal [7] (mg/kg)
Volatile Organic Compounds							
	1,1,1-Trichloroethane	NE	2.0	2.0	2.0	2.0	2.0
	1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	0.01	0.01
	1,1,2-Trichloroethane	NE	0.0049	0.0049	0.0049	0.030	0.01
	1,1-Dichloroethane	NE	0.05	0.05	0.05	0.05	0.03
	1,1-Dichloroethene	NE	0.06	0.005	0.005	0.06	0.06
	1,2-Dichloroethane	NE	0.005	0.06	0.06	0.005	0.003
	1,2-Dichloroethene (total)	NE	0.06	0.06	0.06	0.06	0.06
	1,2-Dichloropropane	NE	NE	0.06	0.06	0.05	0.003
	1,3-Dichloropropene (cis)	NE	NE	0.1	0.10	0.005	0.001
	1,4-Dioxane	NE	NE	NE	NE	0.03	0.03
	2-Butanone	NE	42	NE	NE	NE	NE
	2-Hexanone	NE	29	0.005	0.005	NE	NE
	4-Methyl-2-pentanone	NE	0.99	NE	NE	NE	NE
	Acetone	NE	7.0	7.0	7	63	63
	Benzene	NE	0.01	0.01	0.01	0.01	0.001
	Bromodichloroethane	NE	NE	NE	NE	0.80	0.003
	Carbon disulfide	NE	7.0	NE	NE	NE	NE
	Carbon tetrachloride	NE	NE	NE	NE	0.005	0.0002
	Chlorobenzene	NE	0.2	7.0	7.0	NE	NE
	Chloroethane	NE	NE	0.2	0.2	0.16	0.01
	Chloromethane	NE	NE	NE	NE	0.03	0.03
	Chloroform	NE	0.011	0.011	0.011	0.7	0.004
	cis-1,2-Dichloroethene	NE	0.06	NE	NE	0.06	0.06
	Dibromochloroethane	NE	NE	0.29	0.29	0.60	0.01
	Ethylbenzene	NE	0.29	NE	NE	0.3	0.02
	Methyl ethyl ketone	NE	NE	0.05	0.05	42.0	42
	Methylene Chloride	NE	0.05	1.0	1.0	0.05	0.03
	Styrene	NE	1.0	0.05	0.05	NE	NE
	Tetrachloroethene	NE	0.05	0.42	0.42	0.05	0.002
	Toluene	NE	0.42	0.05	0.05	0.4	0.40
	trans-1,2-Dichloroethene	NE	0.1	0.005	0.005	0.10	0.10
	trans-1,3-Dichloropropene	NE	0.005	0.17	0.17	0.005	0.001
	Trichloroethene	NE	0.05	42	42	0.05	0.01
	Vinyl chloride	NE	0.005	29	29	0.005	0.0001
	Xylenes	NE	0.17	0.99	0.99	0.2	0.20
Semi-Volatile Organic Compounds							
	1,2-Dichlorobenzene	NE	NE	NE	NE	23	19
	1,3-Dichlorobenzene	NE	NE	NE	NE	1,354	18
	1,4-Dichlorobenzene	NE	NE	NE	NE	11	0.02
	2,4-Dimethylphenol	NE	3,900	NE	3,900	NA	2,200
	2-Methylnaphthalene	NE	46	46	46	142	17
	2-Methylphenol	NE	9800	NE	9,800	NA	5,500
	4-Chloroaniline[1]	NE	NE	NE	NE	NE	NE
	4-Methylphenol	NE	980	980	980	NE	NE
	Acenaphthene	NE	1,161	1,161	1,161	1,161	1,161
	Acenaphthylene	NE	654	654	654	654	654
	Anthracene	NE	17,350	17,350	17,350	17,350	17,350
	Benzo(a)anthracene	NE	2	2	24.14	80.5	1.0
	Benzo(a)pyrene	NE	0.2	0.2	13	641	0.10
	Benzo(b)fluoranthene	NE	2	2	9.62	13	1.0
	Benzoic acid	NE	780,000	780,000	780,000	NE	NE
	bis(2-Chloroethyl) ether	NE	1.1	1.1	1.1	NE	NE
	Butyl benzyl phthalate	NE	13,889	13,889	13,889	13,889	13,889
	Dibenzofuran	NE	780	780	910	910	190
	Diethyl phthalate	NE	1,572	1,572	1,572	NE	NE
	Di-n-octylphthalate	NE	3,900	3,900	3,900	NE	NE
	Fluoranthene	NE	6,700	6,700	20	6,231	3,400
	Fluorene	NE	1,220	1,220	1,220	1,220	1,220
	Indeno(1,2,3-cd)pyrene	NE	2	2	28	37.3	1.0
	Isophorone	NE	2,700	2,700	2,700	NE	NE
	N-Nitrosodiphenylamine	NE	1.70	1.70	1.70	NE	NE
	Naphthalene	NE	24.0	24.0	24.0	145.8	0.1
	Benzo(g,h,i)perylene	NE	5,000	5,000	223,894	279,868	2,500
	Benzo(k)fluoranthene	NE	2	2	9.62	13	1.0
	bis(2-Ethylhexyl)phthalate	NE	14.2	14.2	14.2	14	14
	Carbazole	NE	0.97	0.97	0.97	NE	NE
	Chrysene	NE	20	20	33.8	46.7	9.8
	Di-n-butylphthalate	NE	1,409	1,409	1,409	1,409	1,409
	Dibenzo(a,h)anthracene	NE	0.57	0.57	16.4	16.4	0.29
	Pentachlorophenol	NE	31.0	31.0	31	31	9.9
	Phenanthrene	NE	780	780	1,983	2,479	2,300
	Phenol	NE	0.6	0.6	0.6	None	32,000
	Pyrene	NE	4,673	4,673	4,673	4,673	2,500
	N-Nitrosodi-n-propylamine	NE	NE	NE	NE	NA	0.22
Total Petroleum Hydrocarbons							
	TPH-Diesel	100[a]	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	TPH	See TPH-Diesel	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	TEPH - 5 feet from G.W.	NE	3,000	3,000	3,000	3,000	3,000
	TEPH - Above 5 feet from G.W.	NE	10,000	10,000	10,000	10,000	10,000
	TPH-Kerosene	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	No. 2 Fuel Oil	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	No. 4 Fuel Oil	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	No. 6 Fuel Oil	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	Oil	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	O&G	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	Motor Oil	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	Stoddard Solvent	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
	Unknown Hydrocarbons	NE	See TEPH	See TEPH	See TEPH	See TEPH	See TEPH
Gasoline							
	Gasoline	NE	128.3	NE	128.3	128	128
Metals							
	Antimony	100	30	3	30	30	30
	Arsenic	NE	76	16	106	106	29
	Barium	NE	1,400	1,400	4,940	4,940	1,400
	Beryllium	NE	20	NE	20	NL	17
	Cadmium	NE	9.5	9.5	19	19	9.5
	Cobalt	NE	91	91	636	636	58
	Chromium	NE	NE	NE	NE	NE	NE
	Chromium (trivalent)	NE	484	484	484	484	484
	Hexavalent Chromium	NE	0.27	NE	0.27	203	0.28
	Copper	1,500	9,800	9,800	22,169	110,843	9,900
	Lead	950	950	654	1,723	1,723	950
	Mercury	NE	78	78	155	155	60
	Molybdenum	NE	66	66	66	230	230
	Nickel	NE	110	110	997	997	140
	Selenium	NE	1,400	1,400	1,400	NL	1,300
	Silver	NE	1,400	1,400	1,400	NL	1,300
	Thallium	NE	22	22	22	NL	17
	Tin	NE	78,000	78,000	78,000	NE	NE
	Vanadium	NE	1,178	1,178	1,178	1,178	250
	Zinc	2,400	39,000	39,000	122,306	305,765	75,000

Key:
mg/kg = Milligrams per kilogram
NE = Non established
a = As described in the Closure Report for Sacramento Station Hydrocarbon Area Soils (ERM 1994), the hydrocarbon area was characterized as an area of diesel fuel release. Compliance sampling was performed using analysis of TPH as diesel range hydrocarbons using SW-846 Method 8015 modified for diesel (< C-28) and approved by the DTSC.
DTSC = Department of Toxic Substances Control
mg/kg = Milligrams per kilogram
NA = Not applicable
NL = No limit
TEPH = Total extractable hydrocarbons
1 = *Final Remedial Action Plan, Sacramento Station Site* (Woodward-Clyde Consultants, December 1989) .
2 = *Final Central Corridor, Car Shop Nine, and Northern Shops Remedial Action Plan for Soil* (ERM, January 2000)
3 = *Final Amended Industrial Wastewater Lagoon Remedial Action Plan for Soil* (ERM, 2000b)
4 = *Final Amendments to the Lagoon Study Area Remedial Action Plan for Northwest Corner Soil* (ERM, 2003b)
5 = *Final Remedial Action Plan, Central Shops Study Area - Soil and South Plume Study Area – Groundwater* (ERM, July 2013)
6 = Remedial Goal applies in areas designated as Open Space in the Sacramento Railyards Specific Plan at a depth greater than 5 feet bgs
7 = More stringent of Health-Based Remedial Goals and Groundwater Protection Remedial Goals.

Appendix I
Noise Data

Project Name: Railyards Specific Plan Update
Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario: Baseline (2016) without RSPU
Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	19,365	35	97%	2%	1%	66.5	29	63	135	291	627
between N 3rd Street and Sequoia Pacific Boulevard	18,485	35	97%	2%	1%	66.3	28	61	131	282	608
between Sequoia Pacific Boulevard and N 5th Street.	18,180	35	97%	2%	1%	66.2	28	60	130	279	601
between north 5th Street and N 7th Street	17,605	35	97%	2%	1%	66.1	27	59	127	273	588
between N 7th Street and N 10th Street	20,340	35	97%	2%	1%	66.7	30	65	140	301	648
between N 10th Street and Dos Rios Street	19,090	35	97%	2%	1%	66.4	29	62	134	288	621
between Dos Rios Street and N 12th Street	19,090	35	97%	2%	1%	66.4	29	62	134	288	621
12th Street											
between 16th Street and Sunbeam Avenue	46,790	35	97%	2%	1%	70.3	52	113	243	524	1,129
between Sunbeam Avenue and Dos Rios Street	21,465	35	97%	2%	1%	66.9	31	67	145	312	672
between N B Street and E Street	20,560	30	97%	2%	1%	65.2	24	52	112	241	518
between E Street and F Street	19,260	30	97%	2%	1%	65.0	23	50	107	230	496
Dos Rios Street											
between Richards Boulevard and N 12th Street	1,180	35	97%	2%	1%	54.3	5	10	21	45	97
B Street											
between Dos Rios Street and 7th Street	4,680	30	97%	2%	1%	58.8	9	19	42	90	193
west of 7th Street	4,675	30	97%	2%	1%	58.8	9	19	42	90	193
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	3,350	30	97%	2%	1%	57.4	7	15	33	72	155
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	905	30	97%	2%	1%	51.7	3	6	14	30	65
south of Bannon Street	3,965	30	97%	2%	1%	58.1	8	17	37	80	173
Bercut Drive											
between Bannon Street and South Park Street	230	30	97%	2%	1%	45.7	1	3	6	12	26
between South Park Street and Railyards Boulevard	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camille Lane	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
South Park Street											
between Bercut Drive and 5th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 5th street and Judan Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Judan Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 6th Street and 7th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
Jibboom Street											
between I-5 and Railyards Boulevard	8,085	35	97%	2%	1%	62.7	16	35	75	163	350
between Railyard Boulevard and I Street	11,835	35	97%	2%	1%	64.3	21	45	97	210	452
Railyards Boulevard											
between Jibboom Street and Bercut Drive	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between Bercut Drive and HSB Dropoff	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between HSB Dropoff and HSB Entry	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between HSB Entry and 5th Street	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between 5th Street and Judah Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between Judah Street and 6th Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between 6th Street and 7th Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between 7th Street and 8th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 8th street and 10th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA

10th Street											
between Railyards Boulevard and B Street	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
between B Street and Richards Boulevard	1,490	30	97%	2%	1%	53.8	4	9	19	42	90
north of Richards Boulevard	3,020	30	97%	2%	1%	56.9	7	14	31	67	144
7th Street											
north of Richards Boulevard	2,635	30	97%	2%	1%	56.3	6	13	28	61	132
between Richards Boulevard and B Street	7,570	30	97%	2%	1%	60.9	12	27	57	124	266
between B Street and South Park Street	11,150	35	97%	2%	1%	64.1	20	43	94	201	434
between South Park Street and Railyards Blvd	11,150	35	97%	2%	1%	64.1	20	43	94	201	434
between Railyards Blvd and F Street	5,240	35	97%	2%	1%	60.8	12	26	57	122	262
between F St and G Street	7,100	30	97%	2%	1%	60.6	12	26	55	118	255
between G Street and H Street	4,820	30	97%	2%	1%	58.9	9	20	42	91	197
between H Street and I Street	3,390	30	97%	2%	1%	57.4	7	16	34	72	156
between I Street and J Street	3,460	30	97%	2%	1%	57.5	7	16	34	73	158
8th Street											
between B Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
north of F Street	1,995	30	97%	2%	1%	55.1	5	11	24	51	109
between F Street and H Street	6,340	30	97%	2%	1%	60.1	11	24	51	110	237
between H Street and I Street	4,510	30	97%	2%	1%	58.6	9	19	41	88	189
south of I Street	6,385	30	97%	2%	1%	60.2	11	24	51	110	238
5th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camile Lane	655	35	97%	2%	1%	51.8	3	7	14	30	66
between Camile Lane and Stevens Street	655	35	97%	2%	1%	51.8	3	7	14	30	66
between Stevens Street and H Street	7,250	35	97%	2%	1%	62.2	15	33	70	151	326
between H Street and I Street	10,230	30	97%	2%	1%	62.2	15	33	70	151	326
between I Street and J Street	6,625	30	97%	2%	1%	60.3	11	24	52	113	244
south of J Street	4,615	30	97%	2%	1%	58.7	9	19	41	89	191
Camille Lane											
between Bercut Drive and HSB Drop Off	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Drop Off and HSB Entry	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Entry and 5th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 5th Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
6th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camille Lane	2,315	35	97%	2%	1%	57.3	7	15	33	71	152
between Camille Lane and Stevens Street	2,315	35	97%	2%	1%	57.3	7	15	33	71	152
between Stevens Street and H Street	3,225	35	97%	2%	1%	58.7	9	19	41	88	190
between H Street and I Street	3,655	30	97%	2%	1%	57.7	8	16	35	76	164
south of I Street	2,875	30	97%	2%	1%	56.7	6	14	30	65	140
G Street											
east of 7th Street	5,430	30	97%	2%	1%	59.5	10	21	46	99	213
west of 7th Street	6,445	30	97%	2%	1%	60.2	11	24	52	111	239
H Street											
between 5th Street and 6th Street	3,645	30	97%	2%	1%	57.7	8	16	35	76	164
between 6th Street and 7th Street	3,775	30	97%	2%	1%	57.9	8	17	36	78	167
between 7th Street and 8th Street	5,105	30	97%	2%	1%	59.2	10	20	44	95	205
east of 8th Street	3,030	30	97%	2%	1%	56.9	7	14	31	67	145
I Street											
west of 5th Street (Yolo County)	7,525	25	97%	2%	1%	59.2	10	21	44	95	205
between 5th Street (Yolo County) and 3rd Street (Yolo County)	10,585	25	97%	2%	1%	60.7	12	26	55	120	258
between 3rd Street (Yolo County) and Jibboom Street	12,890	25	97%	2%	1%	61.5	14	29	63	136	294
between Jubboom Street and 5th Street	19,740	25	97%	2%	1%	63.4	18	39	84	181	390
between 5th Street and 6th Street	14,780	25	97%	2%	1%	62.1	15	32	69	149	322
between 6th Street and 7th Street	13,070	25	97%	2%	1%	61.6	14	30	64	138	296
between 7th Street and 8th Street	13,140	25	97%	2%	1%	61.6	14	30	64	138	298
east of 8th Street	11,265	25	97%	2%	1%	61.0	12	27	58	125	269
J Street											
between 3rd Street and 5th Street	20,445	30	97%	2%	1%	65.2	24	52	111	240	516
between 5th Street and 7th Street	16,695	30	97%	2%	1%	64.3	21	45	97	209	451
east of 7th Street	14,645	30	97%	2%	1%	63.8	19	41	89	192	413
F Street											
between 7th Street and 8th Street	3,910	30	97%	2%	1%	58.0	8	17	37	80	171
between 8th Street and 12th Street	3,740	30	97%	2%	1%	57.8	8	17	36	77	166
east of 12th Street	4,950	30	97%	2%	1%	59.1	9	20	43	93	201
Tower Bridge Gateway											
west of 5th Street (Yolo county)	11,145	30	97%	2%	1%	62.6	16	34	74	160	345
between 5th Street (Yolo County) and South River Road	13,620	30	97%	2%	1%	63.4	18	39	85	183	394
east of S River Road	15,150	30	97%	2%	1%	63.9	20	42	91	196	423

Project Name: Railyards Specific Plan Update
Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario: Baseline (2016) with RSPU
Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT E	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	18,370	35	97%	2%	1%	66.2	28	61	130	281	605
between N 3rd Street and Sequoia Pacific Boulevard	17,855	35	97%	2%	1%	66.1	28	59	128	276	594
between Sequoia Pacific Boulevard and N 5th Street.	14,845	35	97%	2%	1%	65.3	24	53	113	244	525
between north 5th Street and N 7th Street	14,355	35	97%	2%	1%	65.2	24	51	111	238	514
between N 7th Street and N 10th Street	18,475	35	97%	2%	1%	66.3	28	61	131	282	608
between N 10th Street and Dos Rios Street	19,610	35	97%	2%	1%	66.5	29	63	136	294	632
between Dos Rios Street and N 12th Street	19,610	35	97%	2%	1%	66.5	29	63	136	294	632
12th Street											
between 16th Street and Sunbeam Avenue	49,000	35	97%	2%	1%	70.5	54	116	251	540	1,164
between Sunbeam Avenue and Dos Rios Street	20,615	35	97%	2%	1%	66.7	30	65	141	303	654
between N B Street and E Street	22,405	30	97%	2%	1%	65.6	25	55	118	255	549
between E Street and F Street	18,270	30	97%	2%	1%	64.7	22	48	103	222	479
Dos Rios Street											
between Richards Boulevard and N 12th Street	2,665	35	97%	2%	1%	57.9	8	17	36	78	167
B Street											
between Dos Rios Street and 7th Street	7,740	30	97%	2%	1%	61.0	13	27	58	125	270
west of 7th Street	6,200	30	97%	2%	1%	60.0	11	23	50	108	233
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	3,360	30	97%	2%	1%	57.4	7	15	33	72	155
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	4,240	30	97%	2%	1%	58.4	8	18	39	84	181
south of Bannon Street	7,300	30	97%	2%	1%	60.7	12	26	56	121	260
Bercut Drive											
between Bannon Street and South Park Street	10,665	30	97%	2%	1%	62.4	16	33	72	155	335
between South Park Street and Railyards Boulevard	8,930	30	97%	2%	1%	61.6	14	30	64	138	297
between Railyards Boulevard and Camille Lane	3,835	30	97%	2%	1%	57.9	8	17	36	79	169
South Park Street											
between Bercut Drive and 5th Street	8,000	35	97%	2%	1%	62.6	16	35	75	161	348
between 5th street and Judan Street	4,575	35	97%	2%	1%	60.2	11	24	52	111	240
between Judan Street and 6th Street	4,410	35	97%	2%	1%	60.0	11	23	50	109	234
between 6th Street and 7th Street	5,155	35	97%	2%	1%	60.7	12	26	56	120	259
Jibboom Street											
between I-5 and Railyards Boulevard	6,165	35	97%	2%	1%	61.5	14	29	63	136	292
between Railyard Boulevard and I Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
Railyards Boulevard											
Between Jibboom Street and Bercut Drive	9,925	35	97%	2%	1%	63.6	19	40	87	186	402
between Bercut Drive and HSB Dropoff	11,095	35	97%	2%	1%	64.1	20	43	93	201	433
between HSB Dropoff and HSB Entry	13,030	35	97%	2%	1%	64.8	22	48	104	223	482
between HSB Entry and 5th Street	14,500	35	97%	2%	1%	65.2	24	52	111	240	517
between 5th Street and Judah Street	14,120	35	97%	2%	1%	65.1	24	51	109	236	508
between Judah Street and 6th Street	14,480	35	97%	2%	1%	65.2	24	52	111	240	517
between 6th Street and 7th Street	16,740	35	97%	2%	1%	65.8	26	57	123	264	569
between 7th Street and 8th Street	13,095	35	97%	2%	1%	64.8	22	48	104	224	483
between 8th street and 10th Street	11,190	35	97%	2%	1%	64.1	20	44	94	202	435

10th Street											
between Railyards Boulevard and B Street	4,400	30	97%	2%	1%	58.5	9	19	40	86	185
between B Street and Richards Boulevard	6,890	30	97%	2%	1%	60.5	12	25	54	116	250
north of Richards Boulevard	3,000	30	97%	2%	1%	56.9	7	14	31	67	144
7th Street											
north of Richards Boulevard	2,240	30	97%	2%	1%	55.6	5	12	25	55	118
between Richards Boulevard and B Street	8,450	30	97%	2%	1%	61.4	13	29	62	133	287
between B Street and South Park Street	7,630	35	97%	2%	1%	62.4	16	34	73	156	337
between South Park Street and Railyards Blvd	4,635	35	97%	2%	1%	60.3	11	24	52	112	242
between Railyards Blvd and F Street	13,010	35	97%	2%	1%	64.7	22	48	104	223	481
between F St and G Street	9,400	30	97%	2%	1%	61.8	14	31	66	143	308
between G Street and H Street	14,115	30	97%	2%	1%	63.6	19	40	87	187	403
between H Street and I Street	8,110	30	97%	2%	1%	61.2	13	28	60	129	279
between I Street and J Street	7,560	30	97%	2%	1%	60.9	12	27	57	124	266
8th Street											
between B Street and Railyards Boulevard	3,615	35	97%	2%	1%	59.2	10	20	44	95	205
north of F Street	3,010	30	97%	2%	1%	56.9	7	14	31	67	144
between F Street and H Street	9,455	30	97%	2%	1%	61.9	14	31	67	143	309
between H Street and I Street	8,565	30	97%	2%	1%	61.4	13	29	62	134	289
south of I Street	9,455	30	97%	2%	1%	61.9	14	31	67	143	309
5th Street											
between B Street and South Park Street	4,185	35	97%	2%	1%	59.8	10	23	49	105	226
between South Park Street and Railyards Boulevard	7,440	35	97%	2%	1%	62.3	15	33	71	154	331
between Railyards Boulevard and Camile Lane	10,300	35	97%	2%	1%	63.7	19	41	89	191	412
between Camile Lane and Stevens Street	10,725	35	97%	2%	1%	63.9	20	42	91	196	423
between Stevens Street and H Street	16,605	35	97%	2%	1%	65.8	26	57	122	263	566
between H Street and I Street	19,115	30	97%	2%	1%	64.9	23	49	106	229	494
between I Street and J Street	10,815	30	97%	2%	1%	62.4	16	34	73	157	338
south of J Street	7,355	30	97%	2%	1%	60.8	12	26	56	121	261
Camille Lane											
between Bercut Drive and HSB Drop Off	5,185	35	97%	2%	1%	60.8	12	26	56	121	261
between HSB Drop Off and HSB Entry	8,675	35	97%	2%	1%	63.0	17	37	79	170	367
between HSB Entry and 5th Street	9,035	35	97%	2%	1%	63.2	18	38	81	175	377
between 5th Street and 6th Street	9,720	35	97%	2%	1%	63.5	18	40	85	184	396
6th Street											
between B Street and South Park Street	4,835	35	97%	2%	1%	60.4	12	25	54	115	249
between South Park Street and Railyards Boulevard	6,810	35	97%	2%	1%	61.9	15	31	67	145	312
between Railyards Boulevard and Camille Lane	8,670	35	97%	2%	1%	63.0	17	37	79	170	367
between Camille Lane and Stevens Street	12,105	35	97%	2%	1%	64.4	21	46	99	213	458
between Stevens Street and H Street	14,325	35	97%	2%	1%	65.2	24	51	111	238	513
between H Street and I Street	10,875	30	97%	2%	1%	62.5	16	34	73	157	339
south of I Street	8,470	30	97%	2%	1%	61.4	13	29	62	133	287
G Street											
east of 7th Street	9,040	30	97%	2%	1%	61.7	14	30	65	139	300
west of 7th Street	12,065	30	97%	2%	1%	62.9	17	36	78	169	363
H Street											
between 5th Street and 6th Street	4,090	30	97%	2%	1%	58.2	8	18	38	82	177
between 6th Street and 7th Street	6,725	30	97%	2%	1%	60.4	11	25	53	114	246
between 7th Street and 8th Street	8,600	30	97%	2%	1%	61.5	13	29	62	135	290
east of 8th Street	7,385	30	97%	2%	1%	60.8	12	26	56	122	262
I Street											
west of 5th Street (Yolo County)	7,300	25	97%	2%	1%	59.1	9	20	43	93	201
between 5th Street (Yolo County) and 3rd Street (Yolo County)	7,675	25	97%	2%	1%	59.3	10	21	45	97	208
between 3rd Street (Yolo County) and Jibboom Street	9,270	25	97%	2%	1%	60.1	11	24	51	109	236
between Jubboom Street and 5th Street	25,835	25	97%	2%	1%	64.6	22	47	101	217	467
between 5th Street and 6th Street	18,655	25	97%	2%	1%	63.1	17	38	81	174	376
between 6th Street and 7th Street	14,880	25	97%	2%	1%	62.2	15	32	70	150	323
between 7th Street and 8th Street	14,330	25	97%	2%	1%	62.0	15	32	68	146	315
east of 8th Street	13,440	25	97%	2%	1%	61.7	14	30	65	140	302
J Street											
between 3rd Street and 5th Street	24,435	30	97%	2%	1%	66.0	27	58	125	270	582
between 5th Street and 7th Street	20,685	30	97%	2%	1%	65.3	24	52	112	242	521
east of 7th Street	14,860	30	97%	2%	1%	63.8	19	42	90	194	418
F Street											
between 7th Street and 8th Street	8,900	30	97%	2%	1%	61.6	14	30	64	138	297
between 8th Street and 12th Street	8,150	30	97%	2%	1%	61.2	13	28	60	130	280
east of 12th Street	7,815	30	97%	2%	1%	61.0	13	27	59	126	272
Tower Bridge Gateway											
west of 5th Street (Yolo county)	12,990	30	97%	2%	1%	63.2	18	38	82	177	382
between 5th Street (Yolo County) and South River Road	16,430	30	97%	2%	1%	64.3	21	45	96	207	446
east of S River Road	18,280	30	97%	2%	1%	64.7	22	48	103	222	479

Project Name: Railyards Specific Plan Update

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario: Baseline (2016) without KP Medical Center

Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	19,365	35	97%	2%	1%	66.5	29	63	135	291	627
between N 3rd Street and Sequoia Pacific Boulevard	18,485	35	97%	2%	1%	66.3	28	61	131	282	608
between Sequoia Pacific Boulevard and N 5th Street.	18,180	35	97%	2%	1%	66.2	28	60	130	279	601
between north 5th Street and N 7th Street	17,605	35	97%	2%	1%	66.1	27	59	127	273	588
between N 7th Street and N 10th Street	20,340	35	97%	2%	1%	66.7	30	65	140	301	648
between N 10th Street and Dos Rios Street	19,090	35	97%	2%	1%	66.4	29	62	134	288	621
between Dos Rios Street and N 12th Street	19,090	35	97%	2%	1%	66.4	29	62	134	288	621
12th Street											
between 16th Street and Sunbeam Avenue	46,790	35	97%	2%	1%	70.3	52	113	243	524	1,129
between Sunbeam Avenue and Dos Rios Street	21,465	35	97%	2%	1%	66.9	31	67	145	312	672
between N B Street and E Street	20,560	30	97%	2%	1%	65.2	24	52	112	241	518
between E Street and F Street	19,260	30	97%	2%	1%	65.0	23	50	107	230	496
Dos Rios Street											
between Richards Boulevard and N 12th Street	1,180	35	97%	2%	1%	54.3	5	10	21	45	97
B Street											
between Dos Rios Street and 7th Street	4,680	30	97%	2%	1%	58.8	9	19	42	90	193
west of 7th Street	4,675	30	97%	2%	1%	58.8	9	19	42	90	193
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	3,350	30	97%	2%	1%	57.4	7	15	33	72	155
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	905	30	97%	2%	1%	51.7	3	6	14	30	65
south of Bannon Street	3,965	30	97%	2%	1%	58.1	8	17	37	80	173
Bercut Drive											
between Bannon Street and South Park Street	230	30	97%	2%	1%	45.7	1	3	6	12	26
between South Park Street and Railyards Boulevard	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camille Lane	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
South Park Street											
between Bercut Drive and 5th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 5th street and Judan Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Judan Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 6th Street and 7th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
Jibboom Street											
between I-5 and Railyards Boulevard	8,085	35	97%	2%	1%	62.7	16	35	75	163	350
between Railyard Boulevard and I Street	11,835	35	97%	2%	1%	64.3	21	45	97	210	452
Railyards Boulevard											
between Jibboom Street and Bercut Drive	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between Bercut Drive and HSB Dropoff	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between HSB Dropoff and HSB Entry	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between HSB Entry and 5th Street	7,080	35	97%	2%	1%	62.1	15	32	69	149	321
between 5th Street and Judah Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between Judah Street and 6th Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between 6th Street and 7th Street	8,880	35	97%	2%	1%	63.1	17	37	80	173	373
between 7th Street and 8th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 8th street and 10th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA

10th Street											
between Railyards Boulevard and B Street	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
between B Street and Richards Boulevard	1,490	30	97%	2%	1%	53.8	4	9	19	42	90
north of Richards Boulevard	3,020	30	97%	2%	1%	56.9	7	14	31	67	144
7th Street											
north of Richards Boulevard	2,635	30	97%	2%	1%	56.3	6	13	28	61	132
between Richards Boulevard and B Street	7,570	30	97%	2%	1%	60.9	12	27	57	124	266
between B Street and South Park Street	11,150	35	97%	2%	1%	64.1	20	43	94	201	434
between South Park Street and Railyards Blvd	11,150	35	97%	2%	1%	64.1	20	43	94	201	434
between Railyards Blvd and F Street	5,240	35	97%	2%	1%	60.8	12	26	57	122	262
between F St and G Street	7,100	30	97%	2%	1%	60.6	12	26	55	118	255
between G Street and H Street	4,820	30	97%	2%	1%	58.9	9	20	42	91	197
between H Street and I Street	3,390	30	97%	2%	1%	57.4	7	16	34	72	156
between I Street and J Street	3,460	30	97%	2%	1%	57.5	7	16	34	73	158
8th Street											
between B Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
north of F Street	1,995	30	97%	2%	1%	55.1	5	11	24	51	109
between F Street and H Street	6,340	30	97%	2%	1%	60.1	11	24	51	110	237
between H Street and I Street	4,510	30	97%	2%	1%	58.6	9	19	41	88	189
south of I Street	6,385	30	97%	2%	1%	60.2	11	24	51	110	238
5th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camile Lane	655	35	97%	2%	1%	51.8	3	7	14	30	66
between Camile Lane and Stevens Street	655	35	97%	2%	1%	51.8	3	7	14	30	66
between Stevens Street and H Street	7,250	35	97%	2%	1%	62.2	15	33	70	151	326
between H Street and I Street	10,230	30	97%	2%	1%	62.2	15	33	70	151	326
between I Street and J Street	6,625	30	97%	2%	1%	60.3	11	24	52	113	244
south of J Street	4,615	30	97%	2%	1%	58.7	9	19	41	89	191
Camille Lane											
between Bercut Drive and HSB Drop Off	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Drop Off and HSB Entry	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Entry and 5th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 5th Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
6th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camille Lane	2,315	35	97%	2%	1%	57.3	7	15	33	71	152
between Camille Lane and Stevens Street	2,315	35	97%	2%	1%	57.3	7	15	33	71	152
between Stevens Street and H Street	3,225	35	97%	2%	1%	58.7	9	19	41	88	190
between H Street and I Street	3,655	30	97%	2%	1%	57.7	8	16	35	76	164
south of I Street	2,875	30	97%	2%	1%	56.7	6	14	30	65	140
G Street											
east of 7th Street	5,430	30	97%	2%	1%	59.5	10	21	46	99	213
west of 7th Street	6,445	30	97%	2%	1%	60.2	11	24	52	111	239
H Street											
between 5th Street and 6th Street	3,645	30	97%	2%	1%	57.7	8	16	35	76	164
between 6th Street and 7th Street	3,775	30	97%	2%	1%	57.9	8	17	36	78	167
between 7th Street and 8th Street	5,105	30	97%	2%	1%	59.2	10	20	44	95	205
east of 8th Street	3,030	30	97%	2%	1%	56.9	7	14	31	67	145
I Street											
west of 5th Street (Yolo County)	7,525	25	97%	2%	1%	59.2	10	21	44	95	205
between 5th Street (Yolo County) and 3rd Street (Yolo County	10,585	25	97%	2%	1%	60.7	12	26	55	120	258
between 3rd Street (Yolo County) and Jibboom Street	12,890	25	97%	2%	1%	61.5	14	29	63	136	294
between Jubboom Street and 5th Street	19,740	25	97%	2%	1%	63.4	18	39	84	181	390
between 5th Street and 6th Street	14,780	25	97%	2%	1%	62.1	15	32	69	149	322
between 6th Street and 7th Street	13,070	25	97%	2%	1%	61.6	14	30	64	138	296
between 7th Street and 8th Street	13,140	25	97%	2%	1%	61.6	14	30	64	138	298
east of 8th Street	11,265	25	97%	2%	1%	61.0	12	27	58	125	269
J Street											
between 3rd Street and 5th Street	20,445	30	97%	2%	1%	65.2	24	52	111	240	516
between 5th Street and 7th Street	16,695	30	97%	2%	1%	64.3	21	45	97	209	451
east of 7th Street	14,645	30	97%	2%	1%	63.8	19	41	89	192	413
F Street											
between 7th Street and 8th Street	3,910	30	97%	2%	1%	58.0	8	17	37	80	171
between 8th Street and 12th Street	3,740	30	97%	2%	1%	57.8	8	17	36	77	166
east of 12th Street	4,950	30	97%	2%	1%	59.1	9	20	43	93	201
Tower Bridge Gateway											
west of 5th Street (Yolo county)	11,145	30	97%	2%	1%	62.6	16	34	74	160	345
between 5th Street (Yolo County) and South River Road	13,620	30	97%	2%	1%	63.4	18	39	85	183	394
east of S River Road	15,150	30	97%	2%	1%	63.9	20	42	91	196	423

Project Name: Railyards Specific Plan Update

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario: Baseline (2016) with KP Medical Center

Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	19,070	35	97%	2%	1%	66.4	29	62	134	288	621
between N 3rd Street and Sequoia Pacific Boulevard	18,190	35	97%	2%	1%	65.2	24	51	111	238	513
between Sequoia Pacific Boulevard and N 5th Street.	17,885	35	97%	2%	1%	65.1	24	51	109	235	507
between N 7th Street and N 10th Street	32,745	35	97%	2%	1%	68.8	41	89	192	413	890
between N 10th Street and Dos Rios Street	22,430	35	97%	2%	1%	67.1	32	69	149	321	692
between Dos Rios Street and N 12th Street	22,430	35	97%	2%	1%	67.1	32	69	149	321	692
12th Street											
between 16th Street and Sunbeam Avenue	48,295	35	97%	2%	1%	70.4	54	115	248	535	1,153
between Sunbeam Avenue and Dos Rios Street	23,050	35	97%	2%	1%	67.2	33	70	152	327	704
between N B Street and E Street	20,955	30	97%	2%	1%	65.3	24	53	113	244	525
between E Street and F Street	19,685	30	97%	2%	1%	65.0	23	50	108	234	504
Dos Rios Street											
between Richards Boulevard and N 12th Street	1,180	35	97%	2%	1%	54.3	5	10	21	45	97
B Street											
between Dos Rios Street and 7th Street	6,460	30	97%	2%	1%	60.2	11	24	52	111	240
west of 7th Street	6,460	30	97%	2%	1%	60.2	11	24	52	111	240
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	3,100	30	97%	2%	1%	57.0	7	15	32	68	147
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	905	30	97%	2%	1%	51.7	3	6	14	30	65
south of Bannon Street	3,715	30	97%	2%	1%	57.8	8	17	36	77	166
Bercut Drive											
between Bannon Street and South Park Street	8,810	30	97%	2%	1%	61.6	14	29	63	137	295
between South Park Street and Railyards Boulevard	5,830	30	97%	2%	1%	59.8	10	22	48	104	224
between Railyards Boulevard and Camille Lane	615	30	97%	2%	1%	50.0	2	5	11	23	50
South Park Street											
between Bercut Drive and 5th Street	7,655	35	97%	2%	1%	62.4	16	34	73	157	338
between 5th street and Judan Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Judan Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 6th Street and 7th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
Jibboom Street											
between I-5 and Railyards Boulevard	8,345	35	97%	2%	1%	62.8	17	36	77	166	358
between Railyard Boulevard and I Street	13,655	35	97%	2%	1%	65.0	23	NA	NA	NA	NA
Railyards Boulevard								NA	NA	NA	NA
Between Jibboom Street and Bercut Drive	9,160	35	97%	2%	1%	63.2	18	38	82	177	381
between Bercut Drive and HSB Dropoff	8,190	35	97%	2%	1%	62.7	16	NA	NA	NA	NA
between HSB Dropoff and HSB Entry	11,815	35	97%	2%	1%	64.3	21	NA	NA	NA	NA
between HSB Entry and 5th Street	11,815	35	97%	2%	1%	64.3	21	NA	NA	NA	NA
between 5th Street and Judah Street	13,945	35	97%	2%	1%	65.0	23	NA	NA	NA	NA
between Judah Street and 6th Street	13,945	35	97%	2%	1%	65.0	23	50	109	234	504
between 6th Street and 7th Street	16,010	35	97%	2%	1%	65.6	26	55	119	256	552
between 7th Street and 8th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 8th street and 10th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA

10th Street											
between Railyards Boulevard and B Street	0	30	97%	2%	1%	NA	NA	NA	NA	NA	NA
between B Street and Richards Boulevard	1,760	30	97%	2%	1%	54.6	5	10	22	47	101
north of Richards Boulevard	3,020	30	97%	2%	1%	56.9	7	14	31	67	144
7th Street											
north of Richards Boulevard	2,650	30	97%	2%	1%	56.3	6	13	28	61	132
between Richards Boulevard and B Street	20,415	30	97%	2%	1%	65.2	24	52	111	239	516
between B Street and South Park Street	16,230	35	97%	2%	1%	65.7	26	NA	NA	NA	NA
between South Park Street and Railyards Blvd	16,230	35	97%	2%	1%	65.7	26	NA	NA	NA	NA
between Railyards Blvd and F Street	6,960	35	97%	2%	1%	62.0	15	32	68	147	317
between F St and G Street	7,165	30	97%	2%	1%	60.7	12	NA	NA	NA	NA
between G Street and H Street	4,375	30	97%	2%	1%	58.5	9	18	40	86	185
between H Street and I Street	2,915	30	97%	2%	1%	56.8	7	14	30	65	141
between I Street and J Street	3,485	30	97%	2%	1%	57.5	7	16	34	74	159
8th Street											
between B Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
north of F Street	2,040	30	97%	2%	1%	55.2	5	11	24	52	111
between F Street and H Street	6,350	30	97%	2%	1%	60.1	11	24	51	110	237
between H Street and I Street	4,520	30	97%	2%	1%	58.7	9	19	41	88	189
south of I Street	6,390	30	97%	2%	1%	60.2	11	24	51	110	238
5th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	7,655	35	97%	2%	1%	62.4	16	34	73	157	338
between Railyards Boulevard and Camile Lane	5,735	35	97%	2%	1%	61.2	13	28	60	129	279
between Camile Lane and Stevens Street	5,735	35	97%	2%	1%	61.2	13	NA	NA	NA	NA
between Stevens Street and H Street	12,630	35	97%	2%	1%	64.6	22	47	102	219	472
between H Street and I Street	15,670	30	97%	2%	1%	64.1	20	43	93	201	433
between I Street and J Street	9,505	30	97%	2%	1%	61.9	14	31	67	144	310
south of J Street	4,675	30	97%	2%	1%	58.8	9	19	42	90	193
Camille Lane											
between Bercut Drive and HSB Drop Off	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Drop Off and HSB Entry	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between HSB Entry and 5th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between 5th Street and 6th Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
6th Street											
between B Street and South Park Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Railyards Boulevard and Camille Lane	2,550	35	97%	2%	1%	57.7	8	16	35	75	162
between Camille Lane and Stevens Street	2,550	35	97%	2%	1%	57.7	8	16	35	75	162
between Stevens Street and H Street	2,550	35	97%	2%	1%	57.7	8	NA	NA	NA	NA
between H Street and I Street	2,905	30	97%	2%	1%	56.7	7	NA	NA	NA	NA
south of I Street	3,370	30	97%	2%	1%	57.4	7	NA	NA	NA	NA
G Street								NA	NA	NA	NA
east of 7th Street	5,450	30	97%	2%	1%	59.5	10	21	46	99	214
west of 7th Street	6,955	30	97%	2%	1%	60.5	12	NA	NA	NA	NA
H Street								NA	NA	NA	NA
between 5th Street and 6th Street	3,645	30	97%	2%	1%	57.7	8	16	35	76	164
between 6th Street and 7th Street	3,850	30	97%	2%	1%	58.0	8	17	37	79	170
between 7th Street and 8th Street	5,210	30	97%	2%	1%	59.3	10	21	45	96	208
east of 8th Street	3,135	30	97%	2%	1%	57.1	7	15	32	69	148
I Street											
west of 5th Street (Yolo County)	7,780	25	97%	2%	1%	59.3	10	21	45	97	210
between 5th Street (Yolo County) and 3rd Street (Yolo County)	12,050	25	97%	2%	1%	61.2	13	28	61	130	281
between 3rd Street (Yolo County) and Jibboom Street	14,355	25	97%	2%	1%	62.0	15	32	68	146	316
between Jubboom Street and 5th Street	22,045	25	97%	2%	1%	63.9	19	42	91	195	420
between 5th Street and 6th Street	13,530	25	97%	2%	1%	61.7	14	30	65	141	303
between 6th Street and 7th Street	12,075	25	97%	2%	1%	61.3	13	28	61	131	281
between 7th Street and 8th Street	12,645	25	97%	2%	1%	61.5	13	29	62	135	290
east of 8th Street	10,775	25	97%	2%	1%	60.8	12	26	56	121	261
J Street											
between 3rd Street and 5th Street	23,275	30	97%	2%	1%	65.8	26	56	121	261	563
between 5th Street and 7th Street	16,705	30	97%	2%	1%	64.3	21	45	97	210	451
east of 7th Street	14,695	30	97%	2%	1%	63.8	19	41	89	192	414
F Street											
between 7th Street and 8th Street	5,730	30	97%	2%	1%	59.7	10	22	48	103	221
between 8th Street and 12th Street	5,515	30	97%	2%	1%	59.5	10	22	46	100	216
east of 12th Street	5,850	30	97%	2%	1%	59.8	10	22	48	104	224
Tower Bridge Gateway											
west of 5th Street (Yolo county)	11,940	30	97%	2%	1%	62.9	17	36	78	167	361
between 5th Street (Yolo County) and South River Road	13,620	30	97%	2%	1%	63.4	18	39	85	183	394
east of S River Road	15,150	30	97%	2%	1%	63.9	20	42	91	196	423

Project Name: Railyards Specific Plan Update

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario: Baseline (2016) without MLS Stadium

Source of Traffic Volumes: Fehr & Peers, 2016

Road Segment	Peak Hour Traffic Volume	Speed (mph)	Traffic Mix			
			% Auto	% Medium Trucks	% Heavy Trucks	Leq from 50 feet
Richards Boulevard						
between Bercut Drive and N 3rd Street	1,086	35	97%	2%	1%	60.8
between N 3rd Street and Sequoia Pacific Boulevard	1,059	35	97%	2%	1%	60.7
between Sequoia Pacific Boulevard and N 5th Street.	1,054	35	97%	2%	1%	60.7
between north 5th Street and N 7th Street	1,047	35	97%	2%	1%	60.7
between N 7th Street and N 10th Street	1,083	35	97%	2%	1%	60.8
between N 10th Street and Dos Rios Street	959	35	97%	2%	1%	60.3
between Dos Rios Street and N 12th Street	959	35	97%	2%	1%	60.3
12th Street						
between 16th Street and Sunbeam Avenue	2,047	35	97%	2%	1%	63.5
between Sunbeam Avenue and Dos Rios Street	729	35	97%	2%	1%	59.2
between N B Street and E Street	761	30	97%	2%	1%	58.5
between E Street and F Street	695	30	97%	2%	1%	58.1
Dos Rios Street						
between Richards Boulevard and N 12th Street	80	35	97%	2%	1%	51.9
B Street						
between Dos Rios Street and 7th Street	209	30	97%	2%	1%	53.5
west of 7th Street	209	30	97%	2%	1%	53.5
Bannon Street						
between Sequoia Pacific Boulevard and Bercut Drive	86	30	97%	2%	1%	50.6
Sequoia Pacific Boulevard						
between Richards Boulevard and Bannon Street	69	30	97%	2%	1%	50.0
south of Bannon Street	119	30	97%	2%	1%	51.6
Bercut Drive						
between Bannon Street and South Park Street	16	30	97%	2%	1%	47.2
between South Park Street and Railyards Boulevard	0	30	97%	2%	1%	NA
between Railyards Boulevard and Camille Lane	0	30	97%	2%	1%	NA
South Park Street						
between Bercut Drive and 5th Street	0	35	97%	2%	1%	NA
between 5th street and Judan Street	0	35	97%	2%	1%	NA
between Judan Street and 6th Street	0	35	97%	2%	1%	NA
between 6th Street and 7th Street	0	35	97%	2%	1%	NA
Jibboom Street						
between I-5 and Railyards Boulevard	555	35	97%	2%	1%	58.2
between Railyard Boulevard and I Street	701	35	97%	2%	1%	59.1
Railyards Boulevard						
between Jibboom Street and Bercut Drive	289	35	97%	2%	1%	55.7
between Bercut Drive and HSB Dropoff	289	35	97%	2%	1%	55.7
between HSB Dropoff and HSB Entry	289	35	97%	2%	1%	55.7
between HSB Entry and 5th Street	289	35	97%	2%	1%	55.7
between 5th Street and Judah Street	358	35	97%	2%	1%	56.5
between Judah Street and 6th Street	358	35	97%	2%	1%	56.5
between 6th Street and 7th Street	358	35	97%	2%	1%	56.5
between 7th Street and 8th Street	0	35	97%	2%	1%	NA
between 8th street and 10th Street	0	35	97%	2%	1%	NA

10th Street						
between Railyards Boulevard and B Street	0	30	97%	2%	1%	NA
between B Street and Richards Boulevard	51	30	97%	2%	1%	49.2
north of Richards Boulevard	57	30	97%	2%	1%	49.5
7th Street						
north of Richards Boulevard	110	30	97%	2%	1%	51.3
between Richards Boulevard and B Street	240	30	97%	2%	1%	54.0
between B Street and South Park Street	365	35	97%	2%	1%	56.6
between South Park Street and Railyards Blvd	365	35	97%	2%	1%	56.6
between Railyards Blvd and F Street	113	35	97%	2%	1%	52.8
between F St and G Street	272	30	97%	2%	1%	54.4
between G Street and H Street	105	30	97%	2%	1%	51.2
between H Street and I Street	100	30	97%	2%	1%	51.0
between I Street and J Street	126	30	97%	2%	1%	51.7
8th Street						
between B Street and Railyards Boulevard	0	35	97%	2%	1%	NA
north of F Street	60	30	97%	2%	1%	49.6
between F Street and H Street	111	30	97%	2%	1%	51.3
between H Street and I Street	136	30	97%	2%	1%	52.0
south of I Street	269	30	97%	2%	1%	54.4
5th Street						
between B Street and South Park Street	0	35	97%	2%	1%	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA
between Railyards Boulevard and Camile Lane	35	35	97%	2%	1%	50.3
between Camile Lane and Stevens Street	35	35	97%	2%	1%	50.3
between Stevens Street and H Street	355	35	97%	2%	1%	56.5
between H Street and I Street	574	30	97%	2%	1%	57.4
between I Street and J Street	347	30	97%	2%	1%	55.4
south of J Street	231	30	97%	2%	1%	53.8
Camille Lane						
between Bercut Drive and HSB Drop Off	0	35	97%	2%	1%	NA
between HSB Drop Off and HSB Entry	0	35	97%	2%	1%	NA
between HSB Entry and 5th Street	0	35	97%	2%	1%	NA
between 5th Street and 6th Street	0	35	97%	2%	1%	NA
6th Street						
between B Street and South Park Street	0	35	97%	2%	1%	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA
between Railyards Boulevard and Camille Lane	93	35	97%	2%	1%	52.3
between Camille Lane and Stevens Street	93	35	97%	2%	1%	52.3
between Stevens Street and H Street	97	35	97%	2%	1%	52.4
between H Street and I Street	133	30	97%	2%	1%	51.9
south of I Street	72	30	97%	2%	1%	50.1
G Street						
east of 7th Street	362	30	97%	2%	1%	55.5
west of 7th Street	346	30	97%	2%	1%	55.4
H Street						
between 5th Street and 6th Street	121	30	97%	2%	1%	51.6
between 6th Street and 7th Street	135	30	97%	2%	1%	52.0
between 7th Street and 8th Street	136	30	97%	2%	1%	52.0
east of 8th Street	161	30	97%	2%	1%	52.6
I Street						
west of 5th Street (Yolo County)	545	25	97%	2%	1%	56.1
between 5th Street (Yolo County) and 3rd Street (Yolo County)	762	25	97%	2%	1%	57.5
between 3rd Street (Yolo County) and Jibboom Street	792	25	97%	2%	1%	57.7
between Jubboom Street and 5th Street	1,586	25	97%	2%	1%	60.6
between 5th Street and 6th Street	997	25	97%	2%	1%	58.6
between 6th Street and 7th Street	954	25	97%	2%	1%	58.5
between 7th Street and 8th Street	980	25	97%	2%	1%	58.6
east of 8th Street	846	25	97%	2%	1%	57.9
J Street						
between 3rd Street and 5th Street	887	30	97%	2%	1%	59.1
between 5th Street and 7th Street	717	30	97%	2%	1%	58.3
east of 7th Street	643	30	97%	2%	1%	57.8
F Street						
between 7th Street and 8th Street	85	30	97%	2%	1%	50.5
between 8th Street and 12th Street	101	30	97%	2%	1%	51.1
east of 12th Street	159	30	97%	2%	1%	52.5
Tower Bridge Gateway						
west of 5th Street (Yolo county)	420	30	97%	2%	1%	56.1
between 5th Street (Yolo County) and South River Road	506	30	97%	2%	1%	56.9
east of S River Road	578	30	97%	2%	1%	57.4

Project Name: Railyards Specific Plan Update

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario: Baseline (2016) with MLS Stadium

Source of Traffic Volumes: Fehr & Peers, 2016

Road Segment	Peak hour	Speed (mph)	Traffic Mix			Leq from 50 feet
			% Auto	% Medium Trucks	% Heavy Trucks	
Richards Boulevard						
between Bercut Drive and N 3rd Street	2,245	35	97%	2%	1%	63.9
between N 3rd Street and Sequoia Pacific Boulevard	2,213	35	97%	2%	1%	63.8
between Sequoia Pacific Boulevard and N 5th Street.	2,185	35	97%	2%	1%	63.8
between north 5th Street and N 7th Street	2,202	35	97%	2%	1%	63.8
between N 7th Street and N 10th Street	2,571	35	97%	2%	1%	64.4
between N 10th Street and Dos Rios Street	2,466	35	97%	2%	1%	64.3
between Dos Rios Street and N 12th Street	2,466	35	97%	2%	1%	64.3
12th Street						
between 16th Street and Sunbeam Avenue	2,916	35	97%	2%	1%	65.0
between Sunbeam Avenue and Dos Rios Street	1,613	35	97%	2%	1%	62.5
between N B Street and E Street	848	30	97%	2%	1%	59.0
between E Street and F Street	714	30	97%	2%	1%	58.2
Dos Rios Street						
between Richards Boulevard and N 12th Street	67	35	97%	2%	1%	51.5
B Street						
between Dos Rios Street and 7th Street	882	30	97%	2%	1%	59.1
west of 7th Street	592	30	97%	2%	1%	57.5
Bannon Street						
between Sequoia Pacific Boulevard and Bercut Drive	199	30	97%	2%	1%	53.3
Sequoia Pacific Boulevard						
between Richards Boulevard and Bannon Street	92	30	97%	2%	1%	50.8
south of Bannon Street	252	30	97%	2%	1%	54.2
Bercut Drive						
between Bannon Street and South Park Street	16	30	97%	2%	1%	47.2
between South Park Street and Railyards Boulevard	0	30	97%	2%	1%	NA
between Railyards Boulevard and Camille Lane	0	30	97%	2%	1%	NA
South Park Street						
between Bercut Drive and 5th Street	0	35	97%	2%	1%	NA
between 5th street and Judan Street	0	35	97%	2%	1%	NA
between Judan Street and 6th Street	0	35	97%	2%	1%	NA
between 6th Street and 7th Street	0	35	97%	2%	1%	NA
Jibboom Street						
between I-5 and Railyards Boulevard	755	35	97%	2%	1%	59.4
between Railyard Boulevard and I Street	1,219	35	97%	2%	1%	61.3
Railyards Boulevard						
Between Jibboom Street and Bercut Drive	996	35	97%	2%	1%	60.5
between Bercut Drive and HSB Dropoff	996	35	97%	2%	1%	60.5
between HSB Dropoff and HSB Entry	996	35	97%	2%	1%	60.5
between HSB Entry and 5th Street	996	35	97%	2%	1%	60.5
between 5th Street and Judah Street	990	35	97%	2%	1%	60.5
between Judah Street and 6th Street	990	35	97%	2%	1%	60.5
between 6th Street and 7th Street	990	35	97%	2%	1%	60.5
between 7th Street and 8th Street	710	35	97%	2%	1%	59.1
between 8th street and 10th Street	315	35	97%	2%	1%	56.0

10th Street						
between Railyards Boulevard and B Street	231	30	97%	2%	1%	53.8
between B Street and Richards Boulevard	294	30	97%	2%	1%	54.7
north of Richards Boulevard	77	30	97%	2%	1%	50.3
7th Street						
north of Richards Boulevard	892	30	97%	2%	1%	59.2
between Richards Boulevard and B Street	875	30	97%	2%	1%	59.1
between B Street and South Park Street	879	35	97%	2%	1%	60.0
between South Park Street and Railyards Blvd	867	35	97%	2%	1%	59.9
between Railyards Blvd and F Street	687	35	97%	2%	1%	59.0
between F St and G Street	480	30	97%	2%	1%	56.6
between G Street and H Street	314	30	97%	2%	1%	55.0
between H Street and I Street	106	30	97%	2%	1%	51.2
between I Street and J Street	132	30	97%	2%	1%	51.9
8th Street						
between B Street and Railyards Boulevard	405	35	97%	2%	1%	57.0
north of F Street	71	30	97%	2%	1%	50.0
between F Street and H Street	587	30	97%	2%	1%	57.4
between H Street and I Street	576	30	97%	2%	1%	57.4
south of I Street	610	30	97%	2%	1%	57.6
5th Street						
between B Street and South Park Street	0	35	97%	2%	1%	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA
between Railyards Boulevard and Camile Lane	1,240	35	97%	2%	1%	61.4
between Camile Lane and Stevens Street	1,240	35	97%	2%	1%	61.4
between Stevens Street and H Street	827	35	97%	2%	1%	59.7
between H Street and I Street	1,252	30	97%	2%	1%	60.6
between I Street and J Street	1,116	30	97%	2%	1%	60.1
south of J Street	521	30	97%	2%	1%	57.0
Camille Lane						
between Bercut Drive and HSB Drop Off	0	35	97%	2%	1%	NA
between HSB Drop Off and HSB Entry	0	35	97%	2%	1%	NA
between HSB Entry and 5th Street	0	35	97%	2%	1%	NA
between 5th Street and 6th Street	0	35	97%	2%	1%	NA
6th Street						
between B Street and South Park Street	0	35	97%	2%	1%	NA
between South Park Street and Railyards Boulevard	0	35	97%	2%	1%	NA
between Railyards Boulevard and Camille Lane	404	35	97%	2%	1%	57.0
between Camille Lane and Stevens Street	506	35	97%	2%	1%	57.8
between Stevens Street and H Street	506	35	97%	2%	1%	57.8
between H Street and I Street	525	30	97%	2%	1%	57.0
south of I Street	566	30	97%	2%	1%	57.3
G Street						
east of 7th Street	941	30	97%	2%	1%	59.4
west of 7th Street	717	30	97%	2%	1%	58.3
H Street						
between 5th Street and 6th Street	328	30	97%	2%	1%	55.2
between 6th Street and 7th Street	441	30	97%	2%	1%	56.3
between 7th Street and 8th Street	304	30	97%	2%	1%	54.9
east of 8th Street	210	30	97%	2%	1%	53.5
I Street						
west of 5th Street (Yolo County)	581	25	97%	2%	1%	56.4
between 5th Street (Yolo County) and 3rd Street (Yolo County)	988	25	97%	2%	1%	58.6
between 3rd Street (Yolo County) and Jibboom Street	1,025	25	97%	2%	1%	58.8
between Jubboom Street and 5th Street	1,932	25	97%	2%	1%	61.5
between 5th Street and 6th Street	1,154	25	97%	2%	1%	59.3
between 6th Street and 7th Street	1,007	25	97%	2%	1%	58.7
between 7th Street and 8th Street	1,033	25	97%	2%	1%	58.8
east of 8th Street	999	25	97%	2%	1%	58.6
J Street						
between 3rd Street and 5th Street	1,878	30	97%	2%	1%	62.3
between 5th Street and 7th Street	1,221	30	97%	2%	1%	60.5
east of 7th Street	677	30	97%	2%	1%	58.0
F Street						
between 7th Street and 8th Street	478	30	97%	2%	1%	56.6
between 8th Street and 12th Street	464	30	97%	2%	1%	56.5
east of 12th Street	478	30	97%	2%	1%	56.6
Tower Bridge Gateway						
west of 5th Street (Yolo county)	556	30	97%	2%	1%	57.2
between 5th Street (Yolo County) and South River Road	559	30	97%	2%	1%	57.3
east of S River Road	645	30	97%	2%	1%	57.8

Project Name: Railyards Specific Plan Update

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario: Cumulative (2035) without Proposed Project

Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	30,255	35	97%	2%	1%	68.4	39	84	182	392	844
between N 3rd Street and Sequoia Pacific Boulevard	26,115	35	97%	2%	1%	67.8	36	77	165	355	765
between Sequoia Pacific Boulevard and N 5th Street.	24,510	35	97%	2%	1%	67.5	34	73	158	341	734
between north 5th Street and N 7th Street	25,150	35	97%	2%	1%	67.6	35	75	161	346	746
between N 7th Street and N 10th Street	25,420	35	97%	2%	1%	67.7	35	75	162	349	752
between N 10th Street and Dos Rios Street	31,150	35	97%	2%	1%	68.5	40	86	185	400	861
between Dos Rios Street and N 12th Street	31,150	35	97%	2%	1%	68.5	40	86	185	400	861
12th Street											
between 16th Street and Sunbeam Avenue	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Sunbeam Avenue and Dos Rios Street	18,235	35	97%	2%	1%	66.2	28	60	130	280	602
between N B Street and E Street	23,150	30	97%	2%	1%	65.8	26	56	121	260	561
between E Street and F Street	14,935	30	97%	2%	1%	63.8	19	42	90	194	419
Dos Rios Street											
between Richards Boulevard and N 12th Street	1,700	35	97%	2%	1%	55.9	6	12	27	57	124
B Street											
between Dos Rios Street and 7th Street	17,040	30	97%	2%	1%	64.4	21	46	99	212	457
west of 7th Street	16,645	30	97%	2%	1%	64.3	21	45	97	209	450
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	5,850	30	97%	2%	1%	59.8	10	22	48	104	224
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	12,285	30	97%	2%	1%	63.0	17	37	79	171	368
south of Bannon Street	13,640	30	97%	2%	1%	63.5	18	39	85	183	394
Bercut Drive											
between Bannon Street and South Park Street	6,060	30	97%	2%	1%	59.9	11	23	49	107	230
between South Park Street and Railyards Boulevard	7,570	30	97%	2%	1%	60.9	12	27	57	124	266
between Railyards Boulevard and Camille Lane	4,590	30	97%	2%	1%	58.7	9	19	41	89	191
South Park Street											
between Bercut Drive and 5th Street	5,640	35	97%	2%	1%	61.1	13	28	59	128	276
between 5th street and Judan Street	5,640	35	97%	2%	1%	61.1	13	28	59	128	276
between Judan Street and 6th Street	5,640	35	97%	2%	1%	61.1	13	28	59	128	276
between 6th Street and 7th Street	5,640	35	97%	2%	1%	61.1	13	28	59	128	276
Jibboom Street											
between I-5 and Railyards Boulevard	9,365	35	97%	2%	1%	63.3	18	39	83	179	386
between Railyard Boulevard and I Street	3,480	35	97%	2%	1%	59.0	9	20	43	93	200
Railyards Boulevard											
between Jibboom Street and Bercut Drive	30,020	35	97%	2%	1%	68.4	39	84	181	390	840
between Bercut Drive and HSB Dropoff	30,020	35	97%	2%	1%	68.4	39	84	181	390	840
between HSB Dropoff and HSB Entry	30,020	35	97%	2%	1%	68.4	39	84	181	390	840
between HSB Entry and 5th Street	30,020	35	97%	2%	1%	68.4	39	84	181	390	840
between 5th Street and Judah Street	20,800	35	97%	2%	1%	66.8	31	66	142	305	658
between Judah Street and 6th Street	20,800	35	97%	2%	1%	66.8	31	66	142	305	658
between 6th Street and 7th Street	20,800	35	97%	2%	1%	66.8	31	66	142	305	658
between 7th Street and 8th Street	13,650	35	97%	2%	1%	65.0	23	50	107	231	497
between 8th street and 10th Street	13,200	35	97%	2%	1%	64.8	23	49	105	225	486

10th Street											
between Railyards Boulevard and B Street	6,620	30	97%	2%	1%	60.3	11	24	52	113	244
between B Street and Richards Boulevard	7,955	30	97%	2%	1%	61.1	13	28	59	128	275
north of Richards Boulevard	5,145	30	97%	2%	1%	59.2	10	21	44	96	206
7th Street											
north of Richards Boulevard	5,735	30	97%	2%	1%	59.7	10	22	48	103	221
between Richards Boulevard and B Street	11,365	30	97%	2%	1%	62.7	16	35	75	162	349
between B Street and South Park Street	15,850	35	97%	2%	1%	65.6	25	55	118	255	549
between South Park Street and Railyards Blvd	13,320	35	97%	2%	1%	64.9	23	49	105	227	489
between Railyards Blvd and F Street	21,270	35	97%	2%	1%	66.9	31	67	144	310	668
between F St and G Street	13,180	30	97%	2%	1%	63.3	18	39	83	179	385
between G Street and H Street	14,485	30	97%	2%	1%	63.7	19	41	88	191	410
between H Street and I Street	9,310	30	97%	2%	1%	61.8	14	31	66	142	306
between I Street and J Street	10,625	30	97%	2%	1%	62.4	15	33	72	155	334
8th Street											
between B Street and Railyards Boulevard	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
north of F Street	4,200	30	97%	2%	1%	58.3	8	18	39	83	180
between F Street and H Street	10,200	30	97%	2%	1%	62.2	15	32	70	151	325
between H Street and I Street	9,765	30	97%	2%	1%	62.0	15	32	68	146	316
south of I Street	12,415	30	97%	2%	1%	63.0	17	37	80	172	370
5th Street											
between B Street and South Park Street	11,280	35	97%	2%	1%	64.1	20	44	94	203	437
between South Park Street and Railyards Boulevard	11,280	35	97%	2%	1%	64.1	20	44	94	203	437
between Railyards Boulevard and Camile Lane	14,470	35	97%	2%	1%	65.2	24	52	111	240	516
between Camile Lane and Stevens Street	14,470	35	97%	2%	1%	65.2	24	52	111	240	516
between Stevens Street and H Street	14,470	35	97%	2%	1%	65.2	24	52	111	240	516
between H Street and I Street	17,030	30	97%	2%	1%	64.4	21	46	99	212	457
between I Street and J Street	11,880	30	97%	2%	1%	62.9	17	36	77	167	360
south of J Street	9,900	30	97%	2%	1%	62.1	15	32	69	148	318
Camille Lane											
between Bercut Drive and HSB Drop Off	7,295	35	97%	2%	1%	62.2	15	33	70	152	327
between HSB Drop Off and HSB Entry	7,295	35	97%	2%	1%	62.2	15	33	70	152	327
between HSB Entry and 5th Street	7,295	35	97%	2%	1%	62.2	15	33	70	152	327
between 5th Street and 6th Street	7,295	35	97%	2%	1%	62.2	15	33	70	152	327
6th Street											
between B Street and South Park Street	8,385	35	97%	2%	1%	62.8	17	36	77	167	359
between South Park Street and Railyards Boulevard	8,385	35	97%	2%	1%	62.8	17	36	77	167	359
between Railyards Boulevard and Camille Lane	12,635	35	97%	2%	1%	64.6	22	47	102	219	472
between Camille Lane and Stevens Street	12,635	35	97%	2%	1%	64.6	22	47	102	219	472
between Stevens Street and H Street	12,635	35	97%	2%	1%	64.6	22	47	102	219	472
between H Street and I Street	13,830	30	97%	2%	1%	63.5	18	40	86	185	398
south of I Street	14,220	30	97%	2%	1%	63.6	19	41	87	188	405
G Street											
east of 7th Street	8,460	30	97%	2%	1%	61.4	13	29	62	133	287
west of 7th Street	12,005	30	97%	2%	1%	62.9	17	36	78	168	362
H Street											
between 5th Street and 6th Street	5,050	30	97%	2%	1%	59.1	9	20	44	94	203
between 6th Street and 7th Street	5,905	30	97%	2%	1%	59.8	10	23	49	105	226
between 7th Street and 8th Street	8,735	30	97%	2%	1%	61.5	14	29	63	136	293
east of 8th Street	8,145	30	97%	2%	1%	61.2	13	28	60	130	280
I Street											
west of 5th Street (Yolo County)	9,120	25	97%	2%	1%	60.0	11	23	50	108	233
between 5th Street (Yolo County) and 3rd Street (Yolo Cour	16,645	25	97%	2%	1%	62.6	16	35	75	162	348
between 3rd Street (Yolo County) and Jibboom Street	26,205	25	97%	2%	1%	64.6	22	47	102	219	471
between Jubboom Street and 5th Street	29,770	25	97%	2%	1%	65.2	24	51	111	238	513
between 5th Street and 6th Street	18,310	25	97%	2%	1%	63.1	17	37	80	172	371
between 6th Street and 7th Street	15,770	25	97%	2%	1%	62.4	16	34	72	156	336
between 7th Street and 8th Street	17,085	25	97%	2%	1%	62.8	16	35	76	165	354
east of 8th Street	14,435	25	97%	2%	1%	62.0	15	32	68	147	317
J Street											
between 3rd Street and 5th Street	26,165	30	97%	2%	1%	66.3	28	61	131	283	609
between 5th Street and 7th Street	22,005	30	97%	2%	1%	65.5	25	54	117	252	542
east of 7th Street	17,710	30	97%	2%	1%	64.6	22	47	101	218	469
F Street											
between 7th Street and 8th Street	12,810	30	97%	2%	1%	63.2	18	38	81	176	378
between 8th Street and 12th Street	10,435	30	97%	2%	1%	62.3	15	33	71	153	330
east of 12th Street	7,590	30	97%	2%	1%	60.9	12	27	57	124	267
Tower Bridge Gateway											
west of 5th Street (Yolo county)	13,750	30	97%	2%	1%	63.5	18	40	85	184	396
between 5th Street (Yolo County) and South River Road	11,170	30	97%	2%	1%	62.6	16	35	74	160	345
east of S River Road	12,970	30	97%	2%	1%	63.2	18	38	82	177	381

Project Name: Railyards Specific Plan Update
Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario: Cumulative (2035) with Proposed Project
Source of Traffic Volumes: Fehr & Peers, 2016

Assumed 24-hour Traffic Distribution	Day	Evening	Night
Total ADT Traffic Volume Split	90.39%	0.00%	9.61%

Road Segment	ADT	Speed (mph)	Traffic Mix			Ldn from 50 ft.	Distance (ft) to Traffic Noise Contour (Ldn)				
			% Auto	% Medium Trucks	% Heavy Trucks		70	65	60	55	50
Richards Boulevard											
between Bercut Drive and N 3rd Street	29,550	35	97%	2%	1%	68.3	39	83	179	386	831
between N 3rd Street and Sequoia Pacific Boulevard	25,755	35	97%	2%	1%	67.7	35	76	163	352	758
between Sequoia Pacific Boulevard and N 5th Street.	23,925	35	97%	2%	1%	67.4	34	72	156	335	722
between north 5th Street and N 7th Street	25,210	35	97%	2%	1%	67.6	35	75	161	347	748
between N 7th Street and N 10th Street	24,935	35	97%	2%	1%	67.6	34	74	160	344	742
between N 10th Street and Dos Rios Street	31,075	35	97%	2%	1%	68.5	40	86	185	399	860
between Dos Rios Street and N 12th Street	31,075	35	97%	2%	1%	68.5	40	86	185	399	860
12th Street											
between 16th Street and Sunbeam Avenue	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
between Sunbeam Avenue and Dos Rios Street	20,615	35	97%	2%	1%	66.7	30	65	141	303	654
between N B Street and E Street	23,900	30	97%	2%	1%	65.9	27	57	123	266	573
between E Street and F Street	15,735	30	97%	2%	1%	64.1	20	43	93	201	434
Dos Rios Street											
between Richards Boulevard and N 12th Street	1,680	35	97%	2%	1%	55.9	6	12	26	57	123
B Street											
between Dos Rios Street and 7th Street	20,800	30	97%	2%	1%	65.3	24	52	113	242	522
west of 7th Street	20,800	30	97%	2%	1%	65.3	24	52	113	242	522
Bannon Street											
between Sequoia Pacific Boulevard and Bercut Drive	6,150	30	97%	2%	1%	60.0	11	23	50	108	232
Sequoia Pacific Boulevard											
between Richards Boulevard and Bannon Street	12,845	30	97%	2%	1%	63.2	18	38	82	176	379
south of Bannon Street	14,675	30	97%	2%	1%	63.8	19	41	89	192	414
Bercut Drive											
between Bannon Street and South Park Street	7,030	30	97%	2%	1%	60.6	12	25	55	118	253
between South Park Street and Railyards Boulevard	11,950	30	97%	2%	1%	62.9	17	36	78	168	361
between Railyards Boulevard and Camille Lane	8,240	30	97%	2%	1%	61.3	13	28	61	131	282
South Park Street											
between Bercut Drive and 5th Street	7,525	35	97%	2%	1%	62.4	15	33	72	155	334
between 5th street and Judan Street	3,675	35	97%	2%	1%	59.3	10	21	45	96	207
between Judan Street and 6th Street	3,350	35	97%	2%	1%	58.9	9	19	42	90	195
between 6th Street and 7th Street	6,655	35	97%	2%	1%	61.8	14	31	66	143	308
Jibboom Street											
between I-5 and Railyards Boulevard	9,245	35	97%	2%	1%	63.3	18	38	83	178	383
between Railyard Boulevard and I Street	0	35	97%	2%	1%	NA	NA	NA	NA	NA	NA
Railyards Boulevard											
Between Jibboom Street and Bercut Drive	33,675	35	97%	2%	1%	68.9	42	91	195	421	907
between Bercut Drive and HSB Dropoff	20,905	35	97%	2%	1%	66.8	31	66	142	306	660
between HSB Dropoff and HSB Entry	20,145	35	97%	2%	1%	66.6	30	64	139	299	644
between HSB Entry and 5th Street	19,465	35	97%	2%	1%	66.5	29	63	136	292	629
between 5th Street and Judah Street	17,650	35	97%	2%	1%	66.1	27	59	127	274	589
between Judah Street and 6th Street	17,710	35	97%	2%	1%	66.1	27	59	127	274	591
between 6th Street and 7th Street	19,810	35	97%	2%	1%	66.6	30	64	137	296	637
between 7th Street and 8th Street	13,580	35	97%	2%	1%	64.9	23	49	107	230	495
between 8th street and 10th Street	11,840	35	97%	2%	1%	64.3	21	45	97	210	452

10th Street											
between Railyards Boulevard and B Street	7,025	30	97%	2%	1%	60.6	12	25	55	118	253
between B Street and Richards Boulevard	6,765	30	97%	2%	1%	60.4	11	25	53	115	247
north of Richards Boulevard	5,110	30	97%	2%	1%	59.2	10	20	44	95	205
7th Street											
north of Richards Boulevard	6,200	30	97%	2%	1%	60.0	11	23	50	108	233
between Richards Boulevard and B Street	13,185	30	97%	2%	1%	63.3	18	39	83	179	386
between B Street and South Park Street	18,035	35	97%	2%	1%	66.2	28	60	129	278	598
between South Park Street and Railyards Blvd	14,270	35	97%	2%	1%	65.1	24	51	110	237	512
between Railyards Blvd and F Street	22,520	35	97%	2%	1%	67.1	32	69	149	322	693
between F St and G Street	14,160	30	97%	2%	1%	63.6	19	40	87	188	404
between G Street and H Street	14,660	30	97%	2%	1%	63.8	19	41	89	192	414
between H Street and I Street	8,990	30	97%	2%	1%	61.6	14	30	64	139	299
between I Street and J Street	10,865	30	97%	2%	1%	62.5	16	34	73	157	339
8th Street											
between B Street and Railyards Boulevard	3,080	35	97%	2%	1%	58.5	9	18	40	85	184
north of F Street	4,235	30	97%	2%	1%	58.4	8	18	39	84	181
between F Street and H Street	10,305	30	97%	2%	1%	62.2	15	33	70	152	327
between H Street and I Street	10,490	30	97%	2%	1%	62.3	15	33	71	154	331
south of I Street	12,850	30	97%	2%	1%	63.2	18	38	82	176	379
5th Street											
between B Street and South Park Street	11,975	35	97%	2%	1%	64.4	21	46	98	211	455
between South Park Street and Railyards Boulevard	11,950	35	97%	2%	1%	64.4	21	45	98	211	455
between Railyards Boulevard and Camile Lane	9,680	35	97%	2%	1%	63.5	18	39	85	183	395
between Camile Lane and Stevens Street	11,035	35	97%	2%	1%	64.0	20	43	93	200	431
between Stevens Street and H Street	15,740	35	97%	2%	1%	65.6	25	55	118	254	546
between H Street and I Street	17,455	30	97%	2%	1%	64.5	22	46	100	216	465
between I Street and J Street	12,560	30	97%	2%	1%	63.1	17	37	80	173	373
south of J Street	10,545	30	97%	2%	1%	62.3	15	33	72	154	332
Camille Lane											
between Bercut Drive and HSB Drop Off	9,365	35	97%	2%	1%	63.3	18	39	83	179	386
between HSB Drop Off and HSB Entry	10,820	35	97%	2%	1%	63.9	20	43	92	197	425
between HSB Entry and 5th Street	10,835	35	97%	2%	1%	64.0	20	43	92	198	426
between 5th Street and 6th Street	9,540	35	97%	2%	1%	63.4	18	39	84	182	391
6th Street											
between B Street and South Park Street	8,200	35	97%	2%	1%	62.7	16	35	76	164	354
between South Park Street and Railyards Boulevard	9,650	35	97%	2%	1%	63.5	18	39	85	183	394
between Railyards Boulevard and Camille Lane	8,570	35	97%	2%	1%	62.9	17	36	78	169	364
between Camille Lane and Stevens Street	11,815	35	97%	2%	1%	64.3	21	45	97	209	451
between Stevens Street and H Street	13,005	35	97%	2%	1%	64.7	22	48	104	223	481
between H Street and I Street	13,750	30	97%	2%	1%	63.5	18	40	85	184	396
south of I Street	13,955	30	97%	2%	1%	63.6	19	40	86	186	400
G Street											
east of 7th Street	7,625	30	97%	2%	1%	60.9	12	27	58	124	268
west of 7th Street	13,165	30	97%	2%	1%	63.3	18	39	83	179	385
H Street											
between 5th Street and 6th Street	5,285	30	97%	2%	1%	59.3	10	21	45	97	210
between 6th Street and 7th Street	7,405	30	97%	2%	1%	60.8	12	26	57	122	262
between 7th Street and 8th Street	9,385	30	97%	2%	1%	61.8	14	31	66	143	307
east of 8th Street	9,325	30	97%	2%	1%	61.8	14	31	66	142	306
I Street											
west of 5th Street (Yolo County)	9,060	25	97%	2%	1%	60.0	11	23	50	108	232
between 5th Street (Yolo County) and 3rd Street (Yolo County)	16,440	25	97%	2%	1%	62.6	16	35	74	160	345
between 3rd Street (Yolo County) and Jibboom Street	26,520	25	97%	2%	1%	64.7	22	48	102	221	475
between Jubboom Street and 5th Street	29,790	25	97%	2%	1%	65.2	24	51	111	238	513
between 5th Street and 6th Street	18,355	25	97%	2%	1%	63.1	17	37	80	173	372
between 6th Street and 7th Street	14,920	25	97%	2%	1%	62.2	15	32	70	150	324
between 7th Street and 8th Street	16,795	25	97%	2%	1%	62.7	16	35	75	163	350
east of 8th Street	14,435	25	97%	2%	1%	62.0	15	32	68	147	317
J Street											
between 3rd Street and 5th Street	26,835	30	97%	2%	1%	66.4	29	62	133	287	619
between 5th Street and 7th Street	22,550	30	97%	2%	1%	65.6	26	55	119	256	551
east of 7th Street	17,790	30	97%	2%	1%	64.6	22	47	101	218	471
F Street											
between 7th Street and 8th Street	13,170	30	97%	2%	1%	63.3	18	39	83	179	385
between 8th Street and 12th Street	10,380	30	97%	2%	1%	62.3	15	33	71	153	329
east of 12th Street	7,435	30	97%	2%	1%	60.8	12	26	57	122	263
Tower Bridge Gateway											
west of 5th Street (Yolo county)	14,300	30	97%	2%	1%	63.7	19	41	88	189	407
between 5th Street (Yolo County) and South River Road	11,250	30	97%	2%	1%	62.6	16	35	75	161	347
east of S River Road	13,225	30	97%	2%	1%	63.3	18	39	83	179	386

Appendix J
Transportation

Appendix J.1
Transportation Study and Data

ESA

APPENDIX J.1.1:

October 2015 Counts

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-001 Bercut Drive-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

	Bercut Drive Southbound					Richards Boulevard Westbound					Bercut Drive Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
15:00	4	2	18	0	24	3	146	2	0	151	10	1	0	0	11	12	135	15	0	162	348	0
15:15	7	0	12	0	19	3	123	1	0	127	11	1	2	0	14	13	143	17	0	173	333	0
15:30	5	0	16	0	21	3	150	5	0	158	12	3	0	0	15	14	138	21	0	173	367	0
15:45	4	0	20	0	24	4	115	4	0	123	11	3	1	0	15	19	157	3	0	179	341	0
Total	20	2	66	0	88	13	534	12	0	559	44	8	3	0	55	58	573	56	0	687	1389	0
Grand Total	20	2	66	0	88	13	534	12	0	559	44	8	3	0	55	58	573	56	0	687	1389	0
Apprch %	22.7%	2.3%	75.0%	0.0%		2.3%	95.5%	2.1%	0.0%		80.0%	14.5%	5.5%	0.0%		8.4%	83.4%	8.2%	0.0%			
Total %	1.4%	0.1%	4.8%	0.0%	6.3%	0.9%	38.4%	0.9%	0.0%	40.2%	3.2%	0.6%	0.2%	0.0%	4.0%	4.2%	41.3%	4.0%	0.0%	49.5%	100.0%	

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-001 Bercut Drive-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	Bercut Drive Southbound					Richards Boulevard Westbound					Bercut Drive Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	4	2	18	0	24	3	146	2	0	151	10	1	0	0	11	12	135	15	0	162	348
15:15	7	0	12	0	19	3	123	1	0	127	11	1	2	0	14	13	143	17	0	173	333
15:30	5	0	16	0	21	3	150	5	0	158	12	3	0	0	15	14	138	21	0	173	367
15:45	4	0	20	0	24	4	115	4	0	123	11	3	1	0	15	19	157	3	0	179	341
Total Volume	20	2	66	0	88	13	534	12	0	559	44	8	3	0	55	58	573	56	0	687	1389
% App Total	22.7%	2.3%	75.0%	0.0%		2.3%	95.5%	2.1%	0.0%		80.0%	14.5%	5.5%	0.0%		8.4%	83.4%	8.2%	0.0%		
PHF	.714	.250	.825	.000	.917	.813	.890	.600	.000	.884	.917	.667	.375	.000	.917	.763	.912	.667	.000	.959	.946

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-016 N 3rd Street & Richards Boulevard
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	N 3rd Street Southbound					Richards Boulevard Westbound					N 3rd Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	1	0	6	0	7	0	183	1	0	184	5	0	4	0	9	2	103	3	0	108	308	0
18:45	1	0	2	0	3	0	161	0	0	161	3	0	0	0	3	4	108	1	1	114	281	1
19:00	0	0	1	0	1	0	132	1	0	133	3	0	1	0	4	2	88	1	1	92	230	1
19:15	0	0	2	0	2	0	101	1	0	102	2	0	0	0	2	1	84	1	0	86	192	0
Total	2	0	11	0	13	0	577	3	0	580	13	0	5	0	18	9	383	6	2	400	1011	2
Grand Total	2	0	11	0	13	0	577	3	0	580	13	0	5	0	18	9	383	6	2	400	1011	2
Apprch %	15.4%	0.0%	84.6%	0.0%		0.0%	99.5%	0.5%	0.0%		72.2%	0.0%	27.8%	0.0%		2.3%	95.8%	1.5%	0.5%			
Total %	0.2%	0.0%	1.1%	0.0%	1.3%	0.0%	57.1%	0.3%	0.0%	57.4%	1.3%	0.0%	0.5%	0.0%	1.8%	0.9%	37.9%	0.6%	0.2%	39.6%	100.0%	

PM PEAK HOUR	N 3rd Street Southbound					Richards Boulevard Westbound					N 3rd Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	1	0	6	0	7	0	183	1	0	184	5	0	4	0	9	2	103	3	0	108	308
18:45	1	0	2	0	3	0	161	0	0	161	3	0	0	0	3	4	108	1	1	114	281
19:00	0	0	1	0	1	0	132	1	0	133	3	0	1	0	4	2	88	1	1	92	230
19:15	0	0	2	0	2	0	101	1	0	102	2	0	0	0	2	1	84	1	0	86	192
Total Volume	2	0	11	0	13	0	577	3	0	580	13	0	5	0	18	9	383	6	2	400	1011
% App Total	15.4%	0.0%	84.6%	0.0%		0.0%	99.5%	0.5%	0.0%		72.2%	0.0%	27.8%	0.0%		2.3%	95.8%	1.5%	0.5%		
PHF	.500	.000	.458	.000	.464	.000	.788	.750	.000	.788	.650	.000	.313	.000	.500	.563	.887	.500	.500	.877	.821

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-001 N 5th Street & Richards Boulevard
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	N 5th Street Southbound					Richards Boulevard Westbound					N 5th Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	2	0	14	0	16	2	116	7	0	125	2	0	1	0	3	24	215	2	0	241	385	0
7:15	5	0	13	0	18	3	136	4	0	143	1	0	0	0	1	15	249	0	0	264	426	0
7:30	5	0	4	0	9	2	150	3	0	155	1	0	1	0	2	12	297	1	0	310	476	0
7:45	3	0	4	0	7	5	157	5	0	167	0	0	1	0	1	25	291	3	0	319	494	0
Total	15	0	35	0	50	12	559	19	0	590	4	0	3	0	7	76	1052	6	0	1134	1781	0
8:00	1	0	7	0	8	1	159	4	0	164	3	0	1	0	4	8	281	1	0	290	466	0
8:15	7	0	5	0	12	1	143	5	0	149	3	0	2	0	5	8	267	3	0	278	444	0
8:30	4	0	9	0	13	0	121	6	0	127	2	0	2	0	4	4	238	2	0	244	388	0
8:45	4	0	8	0	12	1	152	3	0	156	3	0	3	0	6	3	236	4	0	243	417	0
Total	16	0	29	0	45	3	575	18	0	596	11	0	8	0	19	23	1022	10	0	1055	1715	0
16:00	11	0	20	0	31	1	314	1	0	316	2	0	3	0	5	3	200	1	0	204	556	0
16:15	7	0	9	0	16	0	274	1	0	275	1	0	1	0	2	1	178	0	0	179	472	0
16:30	3	0	25	0	28	0	345	0	0	345	1	0	1	0	2	3	164	2	0	169	544	0
16:45	2	0	13	0	15	0	291	3	0	294	0	0	2	0	2	6	182	1	0	189	500	0
Total	23	0	67	0	90	1	1224	5	0	1230	4	0	7	0	11	13	724	4	0	741	2072	0
17:00	2	0	26	0	28	1	356	1	0	358	1	0	4	0	5	3	192	2	0	197	588	0
17:15	1	0	6	0	7	0	301	1	0	302	2	0	1	0	3	2	197	0	0	199	511	0
17:30	2	0	3	0	5	0	313	0	0	313	0	0	1	0	1	1	192	2	0	195	514	0
17:45	1	0	2	0	3	0	264	1	0	265	0	0	1	0	1	1	186	0	0	187	456	0
Total	6	0	37	0	43	1	1234	3	0	1238	3	0	7	0	10	7	767	4	0	778	2069	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	2	0	3	0	5	0	168	1	0	169	0	0	0	0	0	2	109	0	0	111	285	0
18:45	3	0	3	0	6	1	147	0	0	148	1	0	1	0	2	2	107	1	0	110	266	0
Total	5	0	6	0	11	1	315	1	0	317	1	0	1	0	2	4	216	1	0	221	551	0
19:00	1	0	1	0	2	0	119	2	0	121	0	0	2	0	2	4	89	0	0	93	218	0
19:15	0	0	1	0	1	2	106	1	0	109	0	0	1	0	1	1	82	2	0	85	196	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	2	0	3	2	225	3	0	230	0	0	3	0	3	5	171	2	0	178	414	0
18:30	2	0	3	0	5	0	168	1	0	169	0	0	0	0	0	2	109	0	0	111	285	0
18:45	3	0	3	0	6	1	147	0	0	148	1	0	1	0	2	2	107	1	0	110	266	0
19:00	1	0	1	0	2	0	119	2	0	121	0	0	2	0	2	4	89	0	0	93	218	0
19:15	0	0	1	0	1	2	106	1	0	109	0	0	1	0	1	1	82	2	0	85	196	0
Total	6	0	8	0	14	3	540	4	0	547	1	0	4	0	5	9	387	3	0	399	965	0
Grand Total	72	0	184	0	256	23	4672	53	0	4748	24	0	33	0	57	137	4339	30	0	4506	9567	0
Apprch %	28.1%	0.0%	71.9%	0.0%		0.5%	98.4%	1.1%	0.0%		42.1%	0.0%	57.9%	0.0%		3.0%	96.3%	0.7%	0.0%			
Total %	0.8%	0.0%	1.9%	0.0%	2.7%	0.2%	48.8%	0.6%	0.0%	49.6%	0.3%	0.0%	0.3%	0.0%	0.6%	1.4%	45.4%	0.3%	0.0%	47.1%	100.0%	

AM PEAK HOUR	N 5th Street Southbound					Richards Boulevard Westbound					N 5th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	5	0	4	0	9	2	150	3	0	155	1	0	1	0	2	12	297	1	0	310	476
7:45	3	0	4	0	7	5	157	5	0	167	0	0	1	0	1	25	291	3	0	319	494
8:00	1	0	7	0	8	1	159	4	0	164	3	0	1	0	4	8	281	1	0	290	466
8:15	7	0	5	0	12	1	143	5	0	149	3	0	2	0	5	8	267	3	0	278	444
Total Volume	16	0	20	0	36	9	609	17	0	635	7	0	5	0	12	53	1136	8	0	1197	1880
% App Total	44.4%	0.0%	55.6%	0.0%		1.4%	95.9%	2.7%	0.0%		58.3%	0.0%	41.7%	0.0%		4.4%	94.9%	0.7%	0.0%		
PHF	.571	.000	.714	.000	.750	.450	.958	.850	.000	.951	.583	.000	.625	.000	.600	.530	.956	.667	.000	.938	.951

NOON PEAK	N 5th Street Southbound					Richards Boulevard Westbound					N 5th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	3	0	25	0	28	0	345	0	0	345	1	0	1	0	2	3	164	2	0	169	544
16:45	2	0	13	0	15	0	291	3	0	294	0	0	2	0	2	6	182	1	0	189	500
17:00	2	0	26	0	28	1	356	1	0	358	1	0	4	0	5	3	192	2	0	197	588
17:15	1	0	6	0	7	0	301	1	0	302	2	0	1	0	3	2	197	0	0	199	511
Total Volume	8	0	70	0	78	1	1293	5	0	1299	4	0	8	0	12	14	735	5	0	754	2143
% App Total	10.3%	0.0%	89.7%	0.0%		0.1%	99.5%	0.4%	0.0%		33.3%	0.0%	66.7%	0.0%		1.9%	97.5%	0.7%	0.0%		
PHF	.667	.000	.673	.000	.696	.250	.908	.417	.000	.907	.500	.000	.500	.000	.600	.583	.933	.625	.000	.947	.911

PM PEAK HOUR	N 5th Street Southbound					Richards Boulevard Westbound					N 5th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	2	0	3	0	5	0	168	1	0	169	0	0	0	0	0	2	109	0	0	111	285
18:45	3	0	3	0	6	1	147	0	0	148	1	0	1	0	2	2	107	1	0	110	266
19:00	1	0	1	0	2	0	119	2	0	121	0	0	2	0	2	4	89	0	0	93	218
19:15	0	0	1	0	1	2	106	1	0	109	0	0	1	0	1	1	82	2	0	85	196
Total Volume	6	0	8	0	14	3	540	4	0	547	1	0	4	0	5	9	387	3	0	399	965
% App Total	42.9%	0.0%	57.1%	0.0%		0.5%	98.7%	0.7%	0.0%		20.0%	0.0%	80.0%	0.0%		2.3%	97.0%	0.8%	0.0%		
PHF	.500	.000	.667	.000	.583	.375	.804	.500	.000	.809	.250	.000	.500	.000	.625	.563	.888	.375	.000	.899	.846

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-002 N 10th Street & Richards Boulevard
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	N 10th Street Southbound					Richards Boulevard Westbound					N 10th Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	2	0	2	0	4	1	146	7	0	154	3	1	0	0	4	34	116	9	0	159	321	0
7:15	0	1	4	0	5	3	197	12	0	212	3	3	2	0	8	23	124	7	0	154	379	0
7:30	5	4	7	0	16	4	204	11	0	219	2	6	1	0	9	35	183	7	0	225	469	0
7:45	2	0	5	0	7	4	238	16	0	258	4	5	0	0	9	39	183	9	0	231	505	0
Total	9	5	18	0	32	12	785	46	0	843	12	15	3	0	30	131	606	32	0	769	1674	0
8:00	2	2	5	0	9	3	217	16	0	236	6	13	3	0	22	34	186	7	0	227	494	0
8:15	0	2	10	0	12	4	217	8	0	229	4	8	8	0	20	26	173	12	0	211	472	0
8:30	2	1	4	0	7	2	194	8	0	204	7	4	1	0	12	15	165	15	0	195	418	0
8:45	2	3	6	0	11	5	188	10	0	203	2	7	5	0	14	29	180	15	0	224	452	0
Total	6	8	25	0	39	14	816	42	0	872	19	32	17	0	68	104	704	49	0	857	1836	0
16:00	18	12	20	0	50	0	223	3	0	226	4	1	0	0	5	6	233	16	0	255	536	0
16:15	10	9	27	0	46	4	230	3	0	237	5	1	2	0	8	3	159	7	0	169	460	0
16:30	21	17	42	0	80	1	230	8	0	239	10	1	2	0	13	13	194	10	0	217	549	0
16:45	13	11	24	0	48	1	246	5	0	252	7	2	5	0	14	14	190	14	0	218	532	0
Total	62	49	113	0	224	6	929	19	0	954	26	5	9	0	40	36	776	47	0	859	2077	0
17:00	35	27	48	0	110	3	247	3	0	253	8	1	6	0	15	4	261	15	0	280	658	0
17:15	19	8	20	0	47	2	240	2	0	244	6	1	6	0	13	4	231	14	0	249	553	0
17:30	10	10	17	0	37	3	250	1	0	254	4	1	3	0	8	3	229	7	0	239	538	0
17:45	9	1	15	0	25	2	212	0	0	214	7	0	1	0	8	3	198	8	0	209	456	0
Total	73	46	100	0	219	10	949	6	0	965	25	3	16	0	44	14	919	44	0	977	2205	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	4	1	7	0	12	1	149	1	0	151	7	1	0	0	8	3	114	2	0	119	290	0
18:45	3	1	6	0	10	0	118	1	0	119	3	0	1	0	4	4	100	5	0	109	242	0
Total	7	2	13	0	22	1	267	2	0	270	10	1	1	0	12	7	214	7	0	228	532	0
19:00	0	0	5	0	5	2	104	1	0	107	3	0	0	0	3	5	81	3	0	89	204	0
19:15	1	1	2	0	4	0	92	0	0	92	2	0	3	0	5	1	86	2	0	89	190	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	7	0	9	2	196	1	0	199	5	0	3	0	8	6	167	5	0	178	394	0
18:30	4	1	7	0	12	1	149	1	0	151	7	1	0	0	8	3	114	2	0	119	290	0
18:45	3	1	6	0	10	0	118	1	0	119	3	0	1	0	4	4	100	5	0	109	242	0
19:00	0	0	5	0	5	2	104	1	0	107	3	0	0	0	3	5	81	3	0	89	204	0
19:15	1	1	2	0	4	0	92	0	0	92	2	0	3	0	5	1	86	2	0	89	190	0
Total	8	3	20	0	31	3	463	3	0	469	15	1	4	0	20	13	381	12	0	406	926	0
Grand Total	166	114	296	0	576	48	4405	119	0	4572	112	57	53	0	222	311	3767	196	0	4274	9644	0
Apprch %	28.8%	19.8%	51.4%	0.0%		1.0%	96.3%	2.6%	0.0%		50.5%	25.7%	23.9%	0.0%		7.3%	88.1%	4.6%	0.0%			
Total %	1.7%	1.2%	3.1%	0.0%	6.0%	0.5%	45.7%	1.2%	0.0%	47.4%	1.2%	0.6%	0.5%	0.0%	2.3%	3.2%	39.1%	2.0%	0.0%	44.3%	100.0%	

AM PEAK HOUR	N 10th Street Southbound					Richards Boulevard Westbound					N 10th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	5	4	7	0	16	4	204	11	0	219	2	6	1	0	9	35	183	7	0	225	469
7:45	2	0	5	0	7	4	238	16	0	258	4	5	0	0	9	39	183	9	0	231	505
8:00	2	2	5	0	9	3	217	16	0	236	6	13	3	0	22	34	186	7	0	227	494
8:15	0	2	10	0	12	4	217	8	0	229	4	8	8	0	20	26	173	12	0	211	472
Total Volume	9	8	27	0	44	15	876	51	0	942	16	32	12	0	60	134	725	35	0	894	1940
% App Total	20.5%	18.2%	61.4%	0.0%		1.6%	93.0%	5.4%	0.0%		26.7%	53.3%	20.0%	0.0%		15.0%	81.1%	3.9%	0.0%		
PHF	.450	.500	.675	.000	.688	.938	.920	.797	.000	.913	.667	.615	.375	.000	.682	.859	.974	.729	.000	.968	.960

NOON PEAK	N 10th Street Southbound					Richards Boulevard Westbound					N 10th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	21	17	42	0	80	1	230	8	0	239	10	1	2	0	13	13	194	10	0	217	549
16:45	13	11	24	0	48	1	246	5	0	252	7	2	5	0	14	14	190	14	0	218	532
17:00	35	27	48	0	110	3	247	3	0	253	8	1	6	0	15	4	261	15	0	280	658
17:15	19	8	20	0	47	2	240	2	0	244	6	1	6	0	13	4	231	14	0	249	553
Total Volume	88	63	134	0	285	7	963	18	0	988	31	5	19	0	55	35	876	53	0	964	2292
% App Total	30.9%	22.1%	47.0%	0.0%		0.7%	97.5%	1.8%	0.0%		56.4%	9.1%	34.5%	0.0%		3.6%	90.9%	5.5%	0.0%		
PHF	.629	.583	.698	.000	.648	.583	.975	.563	.000	.976	.775	.625	.792	.000	.917	.625	.839	.883	.000	.861	.871

PM PEAK HOUR	N 10th Street Southbound					Richards Boulevard Westbound					N 10th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	4	1	7	0	12	1	149	1	0	151	7	1	0	0	8	3	114	2	0	119	290
18:45	3	1	6	0	10	0	118	1	0	119	3	0	1	0	4	4	100	5	0	109	242
19:00	0	0	5	0	5	2	104	1	0	107	3	0	0	0	3	5	81	3	0	89	204
19:15	1	1	2	0	4	0	92	0	0	92	2	0	3	0	5	1	86	2	0	89	190
Total Volume	8	3	20	0	31	3	463	3	0	469	15	1	4	0	20	13	381	12	0	406	926
% App Total	25.8%	9.7%	64.5%	0.0%		0.6%	98.7%	0.6%	0.0%		75.0%	5.0%	20.0%	0.0%		3.2%	93.8%	3.0%	0.0%		
PHF	.500	.750	.714	.000	.646	.375	.777	.750	.000	.776	.536	.250	.333	.000	.625	.650	.836	.600	.000	.853	.798

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-003 Dos Rios Street & Richards Boulevard
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	Dos Rios Street Southbound					Richards Boulevard Westbound					Dos Rios Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	4	0	4	0	8	2	156	9	0	167	0	0	4	0	4	8	96	5	0	109	288	0
7:15	20	2	10	0	32	3	192	29	0	224	5	1	8	0	14	10	105	10	0	125	395	0
7:30	29	1	5	0	35	4	216	17	0	237	7	0	14	0	21	5	166	10	0	181	474	0
7:45	4	3	8	0	15	8	245	7	0	260	3	3	5	0	11	8	165	5	0	178	464	0
Total	57	6	27	0	90	17	809	62	0	888	15	4	31	0	50	31	532	30	0	593	1621	0
8:00	3	4	4	0	11	5	225	2	0	232	8	2	5	0	15	4	170	6	0	180	438	0
8:15	5	3	3	0	11	10	218	1	0	229	4	2	3	0	9	9	168	7	0	184	433	0
8:30	3	1	8	0	12	6	194	2	0	202	5	2	7	0	14	12	153	6	0	171	399	0
8:45	5	2	8	0	15	9	187	0	0	196	6	3	9	0	18	7	169	9	0	185	414	0
Total	16	10	23	0	49	30	824	5	0	859	23	9	24	0	56	32	660	28	0	720	1684	0
16:00	16	1	5	0	22	8	204	1	0	213	9	0	11	0	20	1	234	5	0	240	495	0
16:15	7	1	4	0	12	5	221	1	0	227	7	1	6	0	14	3	171	6	0	180	433	0
16:30	7	3	4	0	14	1	226	2	0	229	6	0	8	0	14	3	203	6	0	212	469	0
16:45	6	1	7	0	14	5	256	2	0	263	4	2	5	0	11	3	194	4	0	201	489	0
Total	36	6	20	0	62	19	907	6	0	932	26	3	30	0	59	10	802	21	0	833	1886	0
17:00	9	4	6	0	19	6	243	2	0	251	8	0	12	0	20	4	281	10	0	295	585	0
17:15	8	1	9	0	18	6	224	0	1	231	5	3	5	0	13	3	258	7	0	268	530	1
17:30	1	2	2	0	5	2	243	0	0	245	5	1	4	0	10	9	225	5	0	239	499	0
17:45	2	0	6	0	8	4	207	3	0	214	3	2	4	0	9	2	205	6	0	213	444	0
Total	20	7	23	0	50	18	917	5	1	941	21	6	25	0	52	18	969	28	0	1015	2058	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	6	0	6	3	143	0	0	146	6	0	4	0	10	2	112	5	1	120	282	1
18:45	1	0	3	0	4	2	110	0	0	112	4	0	5	0	9	0	98	5	0	103	228	0
Total	1	0	9	0	10	5	253	0	0	258	10	0	9	0	19	2	210	10	1	223	510	1
19:00	0	0	0	0	0	2	96	0	0	98	6	0	2	1	9	0	82	2	0	84	191	1
19:15	0	0	0	0	0	4	83	2	0	89	6	0	5	0	11	1	81	7	0	89	189	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	6	179	2	0	187	12	0	7	1	20	1	163	9	0	173	380	1
18:30	0	0	6	0	6	3	143	0	0	146	6	0	4	0	10	2	112	5	1	120	282	1
18:45	1	0	3	0	4	2	110	0	0	112	4	0	5	0	9	0	98	5	0	103	228	0
19:00	0	0	0	0	0	2	96	0	0	98	6	0	2	1	9	0	82	2	0	84	191	1
19:15	0	0	0	0	0	4	83	2	0	89	6	0	5	0	11	1	81	7	0	89	189	0
Total	1	0	9	0	10	11	432	2	0	445	22	0	16	1	39	3	373	19	1	396	890	2
Grand Total	131	29	111	0	271	106	4321	82	1	4510	129	22	142	2	295	97	3709	145	2	3953	9029	5
Apprch %	48.3%	10.7%	41.0%	0.0%		2.4%	95.8%	1.8%	0.0%		43.7%	7.5%	48.1%	0.7%		2.5%	93.8%	3.7%	0.1%			
Total %	1.5%	0.3%	1.2%	0.0%	3.0%	1.2%	47.9%	0.9%	0.0%	50.0%	1.4%	0.2%	1.6%	0.0%	3.3%	1.1%	41.1%	1.6%	0.0%	43.8%	100.0%	

AM PEAK HOUR	Dos Rios Street Southbound					Richards Boulevard Westbound					Dos Rios Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	29	1	5	0	35	4	216	17	0	237	7	0	14	0	21	5	166	10	0	181	474
7:45	4	3	8	0	15	8	245	7	0	260	3	3	5	0	11	8	165	5	0	178	464
8:00	3	4	4	0	11	5	225	2	0	232	8	2	5	0	15	4	170	6	0	180	438
8:15	5	3	3	0	11	10	218	1	0	229	4	2	3	0	9	9	168	7	0	184	433
Total Volume	41	11	20	0	72	27	904	27	0	958	22	7	27	0	56	26	669	28	0	723	1809
% App Total	56.9%	15.3%	27.8%	0.0%		2.8%	94.4%	2.8%	0.0%		39.3%	12.5%	48.2%	0.0%		3.6%	92.5%	3.9%	0.0%		
PHF	.353	.688	.625	.000	.514	.675	.922	.397	.000	.921	.688	.583	.482	.000	.667	.722	.984	.700	.000	.982	.954

NOON PEAK	Dos Rios Street Southbound					Richards Boulevard Westbound					Dos Rios Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	6	1	7	0	14	5	256	2	0	263	4	2	5	0	11	3	194	4	0	201	489
17:00	9	4	6	0	19	6	243	2	0	251	8	0	12	0	20	4	281	10	0	295	585
17:15	8	1	9	0	18	6	224	0	1	231	5	3	5	0	13	3	258	7	0	268	530
17:30	1	2	2	0	5	2	243	0	0	245	5	1	4	0	10	9	225	5	0	239	499
Total Volume	24	8	24	0	56	19	966	4	1	990	22	6	26	0	54	19	958	26	0	1003	2103
% App Total	42.9%	14.3%	42.9%	0.0%		1.9%	97.6%	0.4%	0.1%		40.7%	11.1%	48.1%	0.0%		1.9%	95.5%	2.6%	0.0%		
PHF	.667	.500	.667	.000	.737	.792	.943	.500	.250	.941	.688	.500	.542	.000	.675	.528	.852	.650	.000	.850	.899

PM PEAK HOUR	Dos Rios Street Southbound					Richards Boulevard Westbound					Dos Rios Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	6	0	6	3	143	0	0	146	6	0	4	0	10	2	112	5	1	120	282
18:45	1	0	3	0	4	2	110	0	0	112	4	0	5	0	9	0	98	5	0	103	228
19:00	0	0	0	0	0	2	96	0	0	98	6	0	2	1	9	0	82	2	0	84	191
19:15	0	0	0	0	0	4	83	2	0	89	6	0	5	0	11	1	81	7	0	89	189
Total Volume	1	0	9	0	10	11	432	2	0	445	22	0	16	1	39	3	373	19	1	396	890
% App Total	10.0%	0.0%	90.0%	0.0%		2.5%	97.1%	0.4%	0.0%		56.4%	0.0%	41.0%	2.6%		0.8%	94.2%	4.8%	0.3%		
PHF	.250	.000	.375	.000	.417	.688	.755	.250	.000	.762	.917	.000	.800	.250	.886	.375	.833	.679	.250	.825	.789

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-002A N 12th Street-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

	N 12th Street Southbound					Richards Boulevard Westbound					N 12th Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
15:00	0	140	109	0	249	3	11	0	0	14	0	0	0	0	0	0	135	7	0	142	405	0
15:15	0	159	120	0	279	1	12	0	0	13	0	0	0	0	0	0	106	6	0	112	404	0
15:30	0	150	120	0	270	1	9	0	0	10	0	0	0	0	0	0	147	3	0	150	430	0
15:45	0	133	122	0	255	3	16	0	0	19	0	0	0	0	0	0	128	6	0	134	408	0
Total	0	582	471	0	1053	8	48	0	0	56	0	0	0	0	0	0	516	22	0	538	1647	0
Grand Total	0	582	471	0	1053	8	48	0	0	56	0	0	0	0	0	0	516	22	0	538	1647	0
Apprch %	0.0%	55.3%	44.7%	0.0%		14.3%	85.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	95.9%	4.1%	0.0%			
Total %	0.0%	35.3%	28.6%	0.0%	63.9%	0.5%	2.9%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	31.3%	1.3%	0.0%	32.7%	100.0%	

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-002A N 12th Street-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	N 12th Street Southbound					Richards Boulevard Westbound					N 12th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	140	109	0	249	3	11	0	0	14	0	0	0	0	0	0	135	7	0	142	405
15:15	0	159	120	0	279	1	12	0	0	13	0	0	0	0	0	0	106	6	0	112	404
15:30	0	150	120	0	270	1	9	0	0	10	0	0	0	0	0	0	147	3	0	150	430
15:45	0	133	122	0	255	3	16	0	0	19	0	0	0	0	0	0	128	6	0	134	408
Total Volume	0	582	471	0	1053	8	48	0	0	56	0	0	0	0	0	0	516	22	0	538	1647
% App Total	0.0%	55.3%	44.7%	0.0%		14.3%	85.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	95.9%	4.1%	0.0%		
PHF	.000	.915	.965	.000	.944	.667	.750	.000	.000	.737	.000	.000	.000	.000	.000	.000	.878	.786	.000	.897	.958

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-002B N 16th Street-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

	N 16th Street Southbound					Richards Boulevard Westbound					N 16th Street Northbound					Richards Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
15:00	0	0	0	0	0	0	2	0	0	2	12	239	0	0	251	135	0	0	0	135	388	0
15:15	0	0	0	0	0	0	1	0	0	1	12	207	0	0	219	106	0	0	0	106	326	0
15:30	0	0	0	0	0	0	0	0	0	0	10	233	1	0	244	147	0	0	0	147	391	0
15:45	0	0	0	0	0	0	0	2	0	2	19	235	1	0	255	128	0	0	0	128	385	0
Total	0	0	0	0	0	0	3	2	0	5	53	914	2	0	969	516	0	0	0	516	1490	0
Grand Total	0	0	0	0	0	0	3	2	0	5	53	914	2	0	969	516	0	0	0	516	1490	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	60.0%	40.0%	0.0%		5.5%	94.3%	0.2%	0.0%		100.0%	0.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.3%	3.6%	61.3%	0.1%	0.0%	65.0%	34.6%	0.0%	0.0%	0.0%	34.6%	100.0%	

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-002B N 16th Street-Richards Boulevard.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	N 16th Street Southbound					Richards Boulevard Westbound					N 16th Street Northbound					Richards Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	0	0	0	0	0	2	0	0	2	12	239	0	0	251	135	0	0	0	135	388
15:15	0	0	0	0	0	0	1	0	0	1	12	207	0	0	219	106	0	0	0	106	326
15:30	0	0	0	0	0	0	0	0	0	0	10	233	1	0	244	147	0	0	0	147	391
15:45	0	0	0	0	0	0	0	2	0	2	19	235	1	0	255	128	0	0	0	128	385
Total Volume	0	0	0	0	0	0	3	2	0	5	53	914	2	0	969	516	0	0	0	516	1490
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	60.0%	40.0%	0.0%		5.5%	94.3%	0.2%	0.0%		100.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.375	.250	.000	.625	.697	.956	.500	.000	.950	.878	.000	.000	.000	.878	.953

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-004 Bercut Drive & Bannon Street
Date : 10/28/2015

Bank 1 Count = Bikes & Peds

	Bercut Drive Southbound					Bannon Street Westbound					Bercut Drive Northbound					Bannon Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
7:00	3	0	0	0	3	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	5	0
7:15	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	0	1	5	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	8	1
8:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3	0
8:45	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	3	0	0	2	3	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	5	2
16:00	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
16:15	1	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	1
16:30	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:45	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3	0
Total	3	0	0	3	3	0	0	3	1	3	0	0	0	0	0	0	0	0	0	0	6	4
17:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:15	2	0	0	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4	0
17:30	1	0	0	1	1	0	0	3	1	3	0	0	0	0	0	0	0	0	0	0	4	2
17:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	0	0	2	3	0	0	5	3	5	0	0	0	0	0	0	0	0	0	0	8	5
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
Total	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
Grand Total	16	0	0	8	16	0	0	15	4	15	0	0	0	0	0	0	0	0	0	0	31	12
Apprch %	100.0%	0.0%	0.0%			0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%				
Total %	51.6%	0.0%	0.0%		51.6%	0.0%	0.0%	48.4%		48.4%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Bercut Drive Southbound					Bannon Street Westbound					Bercut Drive Northbound					Bannon Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
7:00	3	0	0		3	0	0	2		2	0	0	0		0	0	0	0		0	5
7:15	1	0	0		1	0	0	0		0	0	0	0		0	0	0	0		0	1
7:30	1	0	0		1	0	0	1		1	0	0	0		0	0	0	0		0	2
7:45	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Total Volume	5	0	0		5	0	0	3		3	0	0	0		0	0	0	0		0	8
% App Total	100.0%	0.0%	0.0%			0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.417	.000	.000		.417	.000	.000	.375		.375	.000	.000	.000		.000	.000	.000	.000		.000	.400

NOON PEAK	Bercut Drive Southbound					Bannon Street Westbound					Bercut Drive Northbound					Bannon Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	1	0	0		1	0	0	2		2	0	0	0		0	0	0	0		0	3
17:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
17:15	2	0	0		2	0	0	2		2	0	0	0		0	0	0	0		0	4
17:30	1	0	0		1	0	0	3		3	0	0	0		0	0	0	0		0	4
Total Volume	4	0	0		4	0	0	7		7	0	0	0		0	0	0	0		0	11
% App Total	100.0%	0.0%	0.0%			0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.500	.000	.000		.500	.000	.000	.583		.583	.000	.000	.000		.000	.000	.000	.000		.000	.688

PM PEAK HOUR	Bercut Drive Southbound					Bannon Street Westbound					Bercut Drive Northbound					Bannon Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
18:45	1	0	0		1	0	0	1		1	0	0	0		0	0	0	0		0	2
19:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
19:15	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Total Volume	1	0	0		1	0	0	1		1	0	0	0		0	0	0	0		0	2
% App Total	100.0%	0.0%	0.0%			0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.250	.000	.000		.250	.000	.000	.250		.250	.000	.000	.000		.000	.000	.000	.000		.000	.250

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-003 N 7th Street-N B Street.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

	N 7th Street Southbound					N B Street Westbound					N 7th Street Northbound					N B Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
15:00	3	6	1	0	10	0	1	0	0	1	3	6	1	0	10	0	6	1	0	7	28	0
15:15	4	10	0	0	14	4	3	3	0	10	2	8	2	0	12	0	3	0	0	3	39	0
15:30	2	8	0	0	10	4	7	2	0	13	1	8	2	0	11	1	9	1	0	11	45	0
15:45	4	11	0	0	15	6	5	2	0	13	2	11	3	0	16	0	0	1	0	1	45	0
Total	13	35	1	0	49	14	16	7	0	37	8	33	8	0	49	1	18	3	0	22	157	0
Grand Total	13	35	1	0	49	14	16	7	0	37	8	33	8	0	49	1	18	3	0	22	157	0
Apprch %	26.5%	71.4%	2.0%	0.0%		37.8%	43.2%	18.9%	0.0%		16.3%	67.3%	16.3%	0.0%		4.5%	81.8%	13.6%	0.0%			
Total %	8.3%	22.3%	0.6%	0.0%	31.2%	8.9%	10.2%	4.5%	0.0%	23.6%	5.1%	21.0%	5.1%	0.0%	31.2%	0.6%	11.5%	1.9%	0.0%	14.0%	100.0%	

ALL TRAFFIC DATA

City of Sacramento
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7708-003 N 7th Street-N B Street.ppd
Date : 9/13/2015

Unshifted Count = All Vehicles

PM PEAK HOUR	N 7th Street Southbound					N B Street Westbound					N 7th Street Northbound					N B Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	3	6	1	0	10	0	1	0	0	1	3	6	1	0	10	0	6	1	0	7	28
15:15	4	10	0	0	14	4	3	3	0	10	2	8	2	0	12	0	3	0	0	3	39
15:30	2	8	0	0	10	4	7	2	0	13	1	8	2	0	11	1	9	1	0	11	45
15:45	4	11	0	0	15	6	5	2	0	13	2	11	3	0	16	0	0	1	0	1	45
Total Volume	13	35	1	0	49	14	16	7	0	37	8	33	8	0	49	1	18	3	0	22	157
% App Total	26.5%	71.4%	2.0%	0.0%		37.8%	43.2%	18.9%	0.0%		16.3%	67.3%	16.3%	0.0%		4.5%	81.8%	13.6%	0.0%		
PHF	.813	.795	.250	.000	.817	.583	.571	.583	.000	.712	.667	.750	.667	.000	.766	.250	.500	.750	.000	.500	.872

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-005 N 16th Street & N B Street
Date : 10/28/2015

Bank 1 Count = Bikes & Peds

	N 16th Street Southbound					N B Street Westbound					N 16th Street Northbound					N B Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Peds Total
7:00	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	2	0	0	8
7:15	0	0	0	0	0	1	1	0	2	2	2	2	0	0	4	0	0	0	7	0	6	9
7:30	0	0	0	1	0	0	2	0	4	2	1	0	0	0	1	0	0	0	4	0	3	9
7:45	0	0	1	1	1	1	1	0	2	2	0	1	0	2	1	0	0	0	0	0	4	5
Total	0	0	1	2	1	2	4	0	11	6	3	3	0	5	6	0	0	0	13	0	13	31
8:00	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
8:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0
8:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2
8:45	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3	0
Total	0	0	1	0	1	0	5	0	2	5	0	1	0	0	1	0	0	0	2	0	7	4
16:00	0	0	0	0	0	1	0	0	3	1	2	3	2	3	7	1	0	0	1	1	9	7
16:15	0	2	1	0	3	2	0	0	1	2	0	3	2	0	5	1	0	1	0	2	12	1
16:30	0	1	0	0	1	0	1	0	4	1	0	1	1	3	2	0	2	2	1	4	8	8
16:45	0	1	0	0	1	0	1	0	1	1	0	1	3	2	4	0	2	0	1	2	8	4
Total	0	4	1	0	5	3	2	0	9	5	2	8	8	8	18	2	4	3	3	9	37	20
17:00	0	0	1	0	1	0	0	0	1	0	0	2	0	2	2	0	1	1	0	2	5	3
17:15	0	0	0	0	0	1	0	0	2	1	1	0	0	0	1	0	0	0	0	0	2	2
17:30	0	0	0	0	0	1	0	0	2	1	1	2	1	3	4	0	0	0	2	0	5	7
17:45	0	1	1	0	2	0	1	0	3	1	0	1	1	1	2	0	0	1	1	1	6	5
Total	0	1	2	0	3	2	1	0	8	3	2	5	2	6	9	0	1	2	3	3	18	17
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	1	0	0	1	1	4	1
18:45	0	2	0	0	2	0	0	0	5	0	1	2	2	2	5	0	0	0	0	0	7	7
Total	0	2	0	0	2	0	0	0	5	0	3	3	2	2	8	1	0	0	1	1	11	8
19:00	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2	0	0	1	2	1	5	2
19:15	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	1	0	3	0	0	0	0	0	1	2	1	0	4	0	0	1	2	1	8	2
18:30	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	1	0	0	1	1	4	1
18:45	0	2	0	0	2	0	0	0	5	0	1	2	2	2	5	0	0	0	0	0	7	7
19:00	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2	0	0	1	2	1	5	2
19:15	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3	0
Total	0	4	1	0	5	0	0	0	5	0	4	5	3	2	12	1	0	1	3	2	19	10
Grand Total	0	13	7	2	20	7	12	0	40	19	15	27	16	23	58	4	5	7	27	16	113	92
Apprch %	0.0%	65.0%	35.0%			36.8%	63.2%	0.0%			25.9%	46.6%	27.6%			25.0%	31.3%	43.8%				
Total %	0.0%	11.5%	6.2%		17.7%	6.2%	10.6%	0.0%		16.8%	13.3%	23.9%	14.2%		51.3%	3.5%	4.4%	6.2%		14.2%	100.0%	

AM PEAK HOUR	N 16th Street Southbound					N B Street Westbound					N 16th Street Northbound					N B Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0		0	1	1	0		2	2	2	0		4	0	0	0		0	6
7:30	0	0	0		0	0	2	0		2	1	0	0		1	0	0	0		0	3
7:45	0	0	1		1	1	1	0		2	0	1	0		1	0	0	0		0	4
8:00	0	0	1		1	0	0	0		0	0	0	0		0	0	0	0		0	1
Total Volume	0	0	2		2	2	4	0		6	3	3	0		6	0	0	0		0	14
% App Total	0.0%	0.0%	100.0%			33.3%	66.7%	0.0%			50.0%	50.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.000	.500		.500	.500	.500	.000		.750	.375	.375	.000		.375	.000	.000	.000		.000	.583

NOON PEAK	N 16th Street Southbound					N B Street Westbound					N 16th Street Northbound					N B Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	0	0	0		0	1	0	0		1	2	3	2		7	1	0	0		1	9
16:15	0	2	1		3	2	0	0		2	0	3	2		5	1	0	1		2	12
16:30	0	1	0		1	0	1	0		1	0	1	1		2	0	2	2		4	8
16:45	0	1	0		1	0	1	0		1	0	1	3		4	0	2	0		2	8
Total Volume	0	4	1		5	3	2	0		5	2	8	8		18	2	4	3		9	37
% App Total	0.0%	80.0%	20.0%			60.0%	40.0%	0.0%			11.1%	44.4%	44.4%			22.2%	44.4%	33.3%			
PHF	.000	.500	.250		.417	.375	.500	.000		.625	.250	.667	.667		.643	.500	.500	.375		.563	.771

PM PEAK HOUR	N 16th Street Southbound					N B Street Westbound					N 16th Street Northbound					N B Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0		0	0	0	0		0	2	1	0		3	1	0	0		1	4
18:45	0	2	0		2	0	0	0		0	1	2	2		5	0	0	0		0	7
19:00	0	1	1		2	0	0	0		0	0	1	1		2	0	0	1		1	5
19:15	0	1	0		1	0	0	0		0	1	1	0		2	0	0	0		0	3
Total Volume	0	4	1		5	0	0	0		0	4	5	3		12	1	0	1		2	19
% App Total	0.0%	80.0%	20.0%			0.0%	0.0%	0.0%			33.3%	41.7%	25.0%			50.0%	0.0%	50.0%			
PHF	.000	.500	.250		.625	.000	.000	.000		.000	.500	.625	.375		.600	.250	.000	.250		.500	.679

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-006 Sunbeam Avenue & N 12th Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	Sunbeam Avenue Southbound					N 12th Street Westbound					Sunbeam Avenue Northbound					N 12th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	5	9	0	14	17	399	0	0	416	1	2	0	0	3	0	0	0	0	0	433	0
7:15	0	2	4	0	6	7	466	1	0	474	7	7	0	0	14	0	0	0	0	0	494	0
7:30	0	10	7	0	17	11	574	1	0	586	1	4	0	0	5	0	0	0	0	0	608	0
7:45	0	4	9	0	13	10	628	6	0	644	4	6	0	0	10	0	0	0	0	0	667	0
Total	0	21	29	0	50	45	2067	8	0	2120	13	19	0	0	32	0	0	0	0	0	2202	0
8:00	0	4	12	0	16	8	525	0	0	533	4	1	0	0	5	0	0	0	0	0	554	0
8:15	0	7	5	0	12	10	550	1	0	561	7	2	0	0	9	0	0	0	0	0	582	0
8:30	0	1	12	0	13	7	560	0	0	567	3	3	0	0	6	0	0	0	0	0	586	0
8:45	0	6	11	0	17	6	474	4	0	484	3	6	0	0	9	0	0	0	0	0	510	0
Total	0	18	40	0	58	31	2109	5	0	2145	17	12	0	0	29	0	0	0	0	0	2232	0
16:00	0	52	18	0	70	32	345	4	0	381	16	1	0	0	17	0	0	0	0	0	468	0
16:15	0	17	10	0	27	13	372	4	0	389	7	3	0	0	10	0	0	0	0	0	426	0
16:30	0	11	12	0	23	20	366	3	0	389	7	7	0	0	14	0	0	0	0	0	426	0
16:45	0	16	16	0	32	10	439	2	0	451	13	4	0	0	17	0	0	0	0	0	500	0
Total	0	96	56	0	152	75	1522	13	0	1610	43	15	0	0	58	0	0	0	0	0	1820	0
17:00	0	65	14	0	79	21	421	1	0	443	5	0	0	0	5	0	0	0	0	0	527	0
17:15	0	66	23	0	89	28	433	1	0	462	6	2	0	0	8	0	0	0	0	0	559	0
17:30	0	21	7	0	28	7	400	2	0	409	12	4	0	0	16	0	0	0	0	0	453	0
17:45	0	21	12	0	33	18	339	3	0	360	9	2	0	0	11	0	0	0	0	0	404	0
Total	0	173	56	0	229	74	1593	7	0	1674	32	8	0	0	40	0	0	0	0	0	1943	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	4	4	0	8	8	201	0	0	209	1	2	0	0	3	0	0	0	0	0	220	0
18:45	0	0	2	0	2	5	158	1	0	164	3	1	0	0	4	0	0	0	0	0	170	0
Total	0	4	6	0	10	13	359	1	0	373	4	3	0	0	7	0	0	0	0	0	390	0
19:00	0	2	1	0	3	3	128	0	0	131	4	1	0	0	5	0	0	0	0	0	139	0
19:15	0	1	2	0	3	4	147	1	0	152	4	1	0	0	5	0	0	0	0	0	160	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	3	0	6	7	275	1	0	283	8	2	0	0	10	0	0	0	0	0	299	0
18:30	0	4	4	0	8	8	201	0	0	209	1	2	0	0	3	0	0	0	0	0	220	0
18:45	0	0	2	0	2	5	158	1	0	164	3	1	0	0	4	0	0	0	0	0	170	0
19:00	0	2	1	0	3	3	128	0	0	131	4	1	0	0	5	0	0	0	0	0	139	0
19:15	0	1	2	0	3	4	147	1	0	152	4	1	0	0	5	0	0	0	0	0	160	0
Total	0	7	9	0	16	20	634	2	0	656	12	5	0	0	17	0	0	0	0	0	689	0
Grand Total	0	322	199	0	521	265	8559	37	0	8861	129	64	0	0	193	0	0	0	0	0	9575	0
Apprch %	0.0%	61.8%	38.2%	0.0%		3.0%	96.6%	0.4%	0.0%		66.8%	33.2%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	3.4%	2.1%	0.0%	5.4%	2.8%	89.4%	0.4%	0.0%	92.5%	1.3%	0.7%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Sunbeam Avenue Southbound					N 12th Street Westbound					Sunbeam Avenue Northbound					N 12th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	10	7	0	17	11	574	1	0	586	1	4	0	0	5	0	0	0	0	0	608
7:45	0	4	9	0	13	10	628	6	0	644	4	6	0	0	10	0	0	0	0	0	667
8:00	0	4	12	0	16	8	525	0	0	533	4	1	0	0	5	0	0	0	0	0	554
8:15	0	7	5	0	12	10	550	1	0	561	7	2	0	0	9	0	0	0	0	0	582
Total Volume	0	25	33	0	58	39	2277	8	0	2324	16	13	0	0	29	0	0	0	0	0	2411
% App Total	0.0%	43.1%	56.9%	0.0%		1.7%	98.0%	0.3%	0.0%		55.2%	44.8%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.625	.688	.000	.853	.886	.906	.333	.000	.902	.571	.542	.000	.000	.725	.000	.000	.000	.000	.000	.904

NOON PEAK	Sunbeam Avenue Southbound					N 12th Street Westbound					Sunbeam Avenue Northbound					N 12th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	16	16	0	32	10	439	2	0	451	13	4	0	0	17	0	0	0	0	0	500
17:00	0	65	14	0	79	21	421	1	0	443	5	0	0	0	5	0	0	0	0	0	527
17:15	0	66	23	0	89	28	433	1	0	462	6	2	0	0	8	0	0	0	0	0	559
17:30	0	21	7	0	28	7	400	2	0	409	12	4	0	0	16	0	0	0	0	0	453
Total Volume	0	168	60	0	228	66	1693	6	0	1765	36	10	0	0	46	0	0	0	0	0	2039
% App Total	0.0%	73.7%	26.3%	0.0%		3.7%	95.9%	0.3%	0.0%		78.3%	21.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.636	.652	.000	.640	.589	.964	.750	.000	.955	.692	.625	.000	.000	.676	.000	.000	.000	.000	.000	.912

PM PEAK HOUR	Sunbeam Avenue Southbound					N 12th Street Westbound					Sunbeam Avenue Northbound					N 12th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	4	4	0	8	8	201	0	0	209	1	2	0	0	3	0	0	0	0	0	220
18:45	0	0	2	0	2	5	158	1	0	164	3	1	0	0	4	0	0	0	0	0	170
19:00	0	2	1	0	3	3	128	0	0	131	4	1	0	0	5	0	0	0	0	0	139
19:15	0	1	2	0	3	4	147	1	0	152	4	1	0	0	5	0	0	0	0	0	160
Total Volume	0	7	9	0	16	20	634	2	0	656	12	5	0	0	17	0	0	0	0	0	689
% App Total	0.0%	43.8%	56.3%	0.0%		3.0%	96.6%	0.3%	0.0%		70.6%	29.4%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.438	.563	.000	.500	.625	.789	.500	.000	.785	.750	.625	.000	.000	.850	.000	.000	.000	.000	.000	.783

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-007 12th Street & E Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	12th Street Southbound					E Street Westbound					12th Street Northbound					E Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	26	296	5	0	327	4	7	0	0	11	0	0	0	0	0	0	8	2	0	10	348	0
7:15	37	368	8	0	413	3	9	0	0	12	0	0	0	0	0	0	12	0	0	12	437	0
7:30	46	375	12	0	433	3	14	0	0	17	0	0	0	0	0	0	8	2	0	10	460	0
7:45	41	501	10	0	552	5	15	0	0	20	0	0	0	0	0	0	14	0	0	14	586	0
Total	150	1540	35	0	1725	15	45	0	0	60	0	0	0	0	0	0	42	4	0	46	1831	0
8:00	47	421	5	0	473	5	15	0	0	20	0	0	0	0	0	0	15	7	0	22	515	0
8:15	35	422	10	0	467	4	20	0	0	24	0	0	0	0	0	0	14	5	0	19	510	0
8:30	50	423	7	0	480	5	9	0	0	14	0	0	0	0	0	0	16	5	0	21	515	0
8:45	41	368	10	0	419	5	14	0	0	19	0	0	0	0	0	0	10	1	0	11	449	0
Total	173	1634	32	0	1839	19	58	0	0	77	0	0	0	0	0	0	55	18	0	73	1989	0
16:00	50	268	6	0	324	5	19	0	0	24	0	0	0	0	0	0	36	4	0	40	388	0
16:15	36	265	3	0	304	3	10	0	0	13	0	0	0	0	0	0	29	3	0	32	349	0
16:30	50	335	13	0	398	1	13	0	0	14	0	0	0	0	0	0	39	4	0	43	455	0
16:45	52	317	5	0	374	7	10	0	0	17	0	0	0	0	0	0	57	5	0	62	453	0
Total	188	1185	27	0	1400	16	52	0	0	68	0	0	0	0	0	0	161	16	0	177	1645	0
17:00	75	322	7	0	404	4	19	0	0	23	0	0	0	0	0	0	81	1	0	82	509	0
17:15	74	346	5	0	425	3	15	0	0	18	0	0	0	0	0	0	49	3	0	52	495	0
17:30	65	364	3	0	432	5	11	0	0	16	0	0	0	0	0	0	45	2	0	47	495	0
17:45	41	311	6	0	358	5	12	0	0	17	0	0	0	0	0	0	41	3	0	44	419	0
Total	255	1343	21	0	1619	17	57	0	0	74	0	0	0	0	0	0	216	9	0	225	1918	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	25	155	4	0	184	0	4	0	0	4	0	0	0	0	0	0	18	0	0	18	206	0
18:45	20	158	1	0	179	3	4	0	0	7	0	0	0	0	0	0	6	3	0	9	195	0
Total	45	313	5	0	363	3	8	0	0	11	0	0	0	0	0	0	24	3	0	27	401	0
19:00	15	114	3	0	132	4	8	0	0	12	0	0	0	0	0	0	6	1	0	7	151	0
19:15	19	108	1	0	128	4	3	0	0	7	0	0	0	0	0	0	10	3	0	13	148	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	34	222	4	0	260	8	11	0	0	19	0	0	0	0	0	0	16	4	0	20	299	0
18:30	25	155	4	0	184	0	4	0	0	4	0	0	0	0	0	0	18	0	0	18	206	0
18:45	20	158	1	0	179	3	4	0	0	7	0	0	0	0	0	0	6	3	0	9	195	0
19:00	15	114	3	0	132	4	8	0	0	12	0	0	0	0	0	0	6	1	0	7	151	0
19:15	19	108	1	0	128	4	3	0	0	7	0	0	0	0	0	0	10	3	0	13	148	0
Total	79	535	9	0	623	11	19	0	0	30	0	0	0	0	0	0	40	7	0	47	700	0
Grand Total	924	6772	133	0	7829	89	250	0	0	339	0	0	0	0	0	0	554	61	0	615	8783	0
Apprch %	11.8%	86.5%	1.7%	0.0%		26.3%	73.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	90.1%	9.9%	0.0%			
Total %	10.5%	77.1%	1.5%	0.0%	89.1%	1.0%	2.8%	0.0%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.7%	0.0%	7.0%	100.0%	

AM PEAK HOUR	12th Street Southbound					E Street Westbound					12th Street Northbound					E Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	41	501	10	0	552	5	15	0	0	20	0	0	0	0	0	0	14	0	0	14	586
8:00	47	421	5	0	473	5	15	0	0	20	0	0	0	0	0	0	15	7	0	22	515
8:15	35	422	10	0	467	4	20	0	0	24	0	0	0	0	0	0	14	5	0	19	510
8:30	50	423	7	0	480	5	9	0	0	14	0	0	0	0	0	0	16	5	0	21	515
Total Volume	173	1767	32	0	1972	19	59	0	0	78	0	0	0	0	0	0	59	17	0	76	2126
% App Total	8.8%	89.6%	1.6%	0.0%		24.4%	75.6%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	77.6%	22.4%	0.0%		
PHF	.865	.882	.800	.000	.893	.950	.738	.000	.000	.813	.000	.000	.000	.000	.000	.000	.922	.607	.000	.864	.907

NOON PEAK	12th Street Southbound					E Street Westbound					12th Street Northbound					E Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	52	317	5	0	374	7	10	0	0	17	0	0	0	0	0	0	57	5	0	62	453
17:00	75	322	7	0	404	4	19	0	0	23	0	0	0	0	0	0	81	1	0	82	509
17:15	74	346	5	0	425	3	15	0	0	18	0	0	0	0	0	0	49	3	0	52	495
17:30	65	364	3	0	432	5	11	0	0	16	0	0	0	0	0	0	45	2	0	47	495
Total Volume	266	1349	20	0	1635	19	55	0	0	74	0	0	0	0	0	0	232	11	0	243	1952
% App Total	16.3%	82.5%	1.2%	0.0%		25.7%	74.3%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	95.5%	4.5%	0.0%		
PHF	.887	.927	.714	.000	.946	.679	.724	.000	.000	.804	.000	.000	.000	.000	.000	.000	.716	.550	.000	.741	.959

PM PEAK HOUR	12th Street Southbound					E Street Westbound					12th Street Northbound					E Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	25	155	4	0	184	0	4	0	0	4	0	0	0	0	0	0	18	0	0	18	206
18:45	20	158	1	0	179	3	4	0	0	7	0	0	0	0	0	0	6	3	0	9	195
19:00	15	114	3	0	132	4	8	0	0	12	0	0	0	0	0	0	6	1	0	7	151
19:15	19	108	1	0	128	4	3	0	0	7	0	0	0	0	0	0	10	3	0	13	148
Total Volume	79	535	9	0	623	11	19	0	0	30	0	0	0	0	0	0	40	7	0	47	700
% App Total	12.7%	85.9%	1.4%	0.0%		36.7%	63.3%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	85.1%	14.9%	0.0%		
PHF	.790	.847	.563	.000	.846	.688	.594	.000	.000	.625	.000	.000	.000	.000	.000	.000	.556	.583	.000	.653	.850

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-018 7th Street & G Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	7th Street Southbound					G Street Westbound					7th Street Northbound					G Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	0	44	0	0	44	26	0	28	0	54	0	13	0	0	13	0	0	0	0	0	111	0
18:45	0	30	0	0	30	9	0	23	0	32	0	10	0	0	10	0	0	0	0	0	72	0
19:00	0	33	0	0	33	9	0	11	0	20	0	3	0	0	3	0	0	0	0	0	56	0
19:15	0	18	0	0	18	6	0	7	0	13	0	3	0	0	3	0	0	0	0	0	34	0
Total	0	125	0	0	125	50	0	69	0	119	0	29	0	0	29	0	0	0	0	0	273	0
Grand Total	0	125	0	0	125	50	0	69	0	119	0	29	0	0	29	0	0	0	0	0	273	0
Apprch %	0.0%	100.0%	0.0%	0.0%		42.0%	0.0%	58.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	45.8%	0.0%	0.0%	45.8%	18.3%	0.0%	25.3%	0.0%	43.6%	0.0%	10.6%	0.0%	0.0%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

PM PEAK HOUR	7th Street Southbound					G Street Westbound					7th Street Northbound					G Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	44	0	0	44	26	0	28	0	54	0	13	0	0	13	0	0	0	0	0	111
18:45	0	30	0	0	30	9	0	23	0	32	0	10	0	0	10	0	0	0	0	0	72
19:00	0	33	0	0	33	9	0	11	0	20	0	3	0	0	3	0	0	0	0	0	56
19:15	0	18	0	0	18	6	0	7	0	13	0	3	0	0	3	0	0	0	0	0	34
Total Volume	0	125	0	0	125	50	0	69	0	119	0	29	0	0	29	0	0	0	0	0	273
% App Total	0.0%	100.0%	0.0%	0.0%		42.0%	0.0%	58.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.710	.000	.000	.710	.481	.000	.616	.000	.551	.000	.558	.000	.000	.558	.000	.000	.000	.000	.000	.615

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-017 8th Street & F Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	8th Street Southbound					F Street Westbound					8th Street Northbound					F Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	0	0	0	0	0	0	10	2	0	12	5	10	8	0	23	2	1	0	0	3	38	0
18:45	0	0	0	0	0	0	7	0	0	7	5	7	7	0	19	1	4	0	0	5	31	0
19:00	0	0	0	0	0	0	5	0	0	5	5	10	5	0	20	1	3	0	0	4	29	0
19:15	0	0	0	0	0	0	3	1	0	4	2	9	5	0	16	2	0	0	0	2	22	0
Total	0	0	0	0	0	0	25	3	0	28	17	36	25	0	78	6	8	0	0	14	120	0
Grand Total	0	0	0	0	0	0	25	3	0	28	17	36	25	0	78	6	8	0	0	14	120	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	89.3%	10.7%	0.0%		21.8%	46.2%	32.1%	0.0%		42.9%	57.1%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.8%	2.5%	0.0%	23.3%	14.2%	30.0%	20.8%	0.0%	65.0%	5.0%	6.7%	0.0%	0.0%	11.7%	100.0%	

PM PEAK HOUR	8th Street Southbound					F Street Westbound					8th Street Northbound					F Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0	0	0	0	10	2	0	12	5	10	8	0	23	2	1	0	0	3	38
18:45	0	0	0	0	0	0	7	0	0	7	5	7	7	0	19	1	4	0	0	5	31
19:00	0	0	0	0	0	0	5	0	0	5	5	10	5	0	20	1	3	0	0	4	29
19:15	0	0	0	0	0	0	3	1	0	4	2	9	5	0	16	2	0	0	0	2	22
Total Volume	0	0	0	0	0	0	25	3	0	28	17	36	25	0	78	6	8	0	0	14	120
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	89.3%	10.7%	0.0%		21.8%	46.2%	32.1%	0.0%		42.9%	57.1%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.625	.375	.000	.583	.850	.900	.781	.000	.848	.750	.500	.000	.000	.700	.789

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-008 12th Street & F Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	12th Street Southbound					F Street Westbound					12th Street Northbound					F Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	40	257	13	0	310	1	4	0	1	6	0	0	0	0	0	0	10	2	0	12	328	1
7:15	44	316	12	0	372	1	6	0	0	7	0	0	0	0	0	0	13	4	0	17	396	0
7:30	59	314	15	0	388	1	8	0	0	9	0	0	0	0	0	0	12	2	0	14	411	0
7:45	75	410	24	0	509	1	12	0	0	13	0	0	0	0	0	0	23	2	0	25	547	0
Total	218	1297	64	0	1579	4	30	0	1	35	0	0	0	0	0	0	58	10	0	68	1682	1
8:00	66	343	18	0	427	0	9	0	0	9	0	0	0	0	0	0	18	2	0	20	456	0
8:15	65	362	22	0	449	2	10	0	0	12	0	0	0	0	0	0	17	5	0	22	483	0
8:30	69	359	21	0	449	0	7	0	0	7	0	0	0	0	0	0	23	4	0	27	483	0
8:45	43	319	11	0	373	3	8	0	0	11	0	0	0	0	0	0	23	1	0	24	408	0
Total	243	1383	72	0	1698	5	34	0	0	39	0	0	0	0	0	0	81	12	0	93	1830	0
16:00	43	219	3	0	265	1	6	0	0	7	0	0	0	0	0	0	61	5	0	66	338	0
16:15	41	217	6	0	264	0	4	0	0	4	0	0	0	0	0	0	38	3	0	41	309	0
16:30	63	288	6	0	357	4	12	0	0	16	0	0	0	0	0	0	82	3	0	85	458	0
16:45	48	273	6	0	327	0	15	0	0	15	0	0	0	0	0	0	68	2	0	70	412	0
Total	195	997	21	0	1213	5	37	0	0	42	0	0	0	0	0	0	249	13	0	262	1517	0
17:00	52	271	8	0	331	1	17	0	0	18	0	0	0	0	0	0	95	4	0	99	448	0
17:15	74	265	16	0	355	1	12	0	0	13	0	0	0	0	0	0	59	3	0	62	430	0
17:30	54	328	8	0	390	0	12	0	0	12	0	0	0	0	0	0	65	5	0	70	472	0
17:45	70	253	4	0	327	2	4	0	0	6	0	0	0	0	0	0	39	6	0	45	378	0
Total	250	1117	36	0	1403	4	45	0	0	49	0	0	0	0	0	0	258	18	0	276	1728	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	20	144	3	0	167	1	11	0	0	12	0	0	0	0	0	0	18	1	0	19	198	0
18:45	29	122	0	0	151	1	3	0	0	4	0	0	0	0	0	0	15	2	0	17	172	0
Total	49	266	3	0	318	2	14	0	0	16	0	0	0	0	0	0	33	3	0	36	370	0
19:00	16	100	1	0	117	4	9	0	0	13	0	0	0	0	0	0	13	2	0	15	145	0
19:15	15	99	2	0	116	1	4	0	0	5	0	0	0	0	0	0	9	3	0	12	133	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	31	199	3	0	233	5	13	0	0	18	0	0	0	0	0	0	22	5	0	27	278	0
18:30	20	144	3	0	167	1	11	0	0	12	0	0	0	0	0	0	18	1	0	19	198	0
18:45	29	122	0	0	151	1	3	0	0	4	0	0	0	0	0	0	15	2	0	17	172	0
19:00	16	100	1	0	117	4	9	0	0	13	0	0	0	0	0	0	13	2	0	15	145	0
19:15	15	99	2	0	116	1	4	0	0	5	0	0	0	0	0	0	9	3	0	12	133	0
Total	80	465	6	0	551	7	27	0	0	34	0	0	0	0	0	0	55	8	0	63	648	0
Grand Total	1066	5724	205	0	6995	32	200	0	1	233	0	0	0	0	0	0	756	69	0	825	8053	1
Apprch %	15.2%	81.8%	2.9%	0.0%		13.7%	85.8%	0.0%	0.4%		0.0%	0.0%	0.0%	0.0%		0.0%	91.6%	8.4%	0.0%			
Total %	13.2%	71.1%	2.5%	0.0%	86.9%	0.4%	2.5%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	0.9%	0.0%	10.2%	100.0%	

AM PEAK HOUR	12th Street Southbound					F Street Westbound					12th Street Northbound					F Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	75	410	24	0	509	1	12	0	0	13	0	0	0	0	0	0	23	2	0	25	547
8:00	66	343	18	0	427	0	9	0	0	9	0	0	0	0	0	0	18	2	0	20	456
8:15	65	362	22	0	449	2	10	0	0	12	0	0	0	0	0	0	17	5	0	22	483
8:30	69	359	21	0	449	0	7	0	0	7	0	0	0	0	0	0	23	4	0	27	483
Total Volume	275	1474	85	0	1834	3	38	0	0	41	0	0	0	0	0	0	81	13	0	94	1969
% App Total	15.0%	80.4%	4.6%	0.0%		7.3%	92.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	86.2%	13.8%	0.0%		
PHF	.917	.899	.885	.000	.901	.375	.792	.000	.000	.788	.000	.000	.000	.000	.000	.000	.880	.650	.000	.870	.900

NOON PEAK	12th Street Southbound					F Street Westbound					12th Street Northbound					F Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	48	273	6	0	327	0	15	0	0	15	0	0	0	0	0	0	68	2	0	70	412
17:00	52	271	8	0	331	1	17	0	0	18	0	0	0	0	0	0	95	4	0	99	448
17:15	74	265	16	0	355	1	12	0	0	13	0	0	0	0	0	0	59	3	0	62	430
17:30	54	328	8	0	390	0	12	0	0	12	0	0	0	0	0	0	65	5	0	70	472
Total Volume	228	1137	38	0	1403	2	56	0	0	58	0	0	0	0	0	0	287	14	0	301	1762
% App Total	16.3%	81.0%	2.7%	0.0%		3.4%	96.6%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	95.3%	4.7%	0.0%		
PHF	.770	.867	.594	.000	.899	.500	.824	.000	.000	.806	.000	.000	.000	.000	.000	.000	.755	.700	.000	.760	.933

PM PEAK HOUR	12th Street Southbound					F Street Westbound					12th Street Northbound					F Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	20	144	3	0	167	1	11	0	0	12	0	0	0	0	0	0	18	1	0	19	198
18:45	29	122	0	0	151	1	3	0	0	4	0	0	0	0	0	0	15	2	0	17	172
19:00	16	100	1	0	117	4	9	0	0	13	0	0	0	0	0	0	13	2	0	15	145
19:15	15	99	2	0	116	1	4	0	0	5	0	0	0	0	0	0	9	3	0	12	133
Total Volume	80	465	6	0	551	7	27	0	0	34	0	0	0	0	0	0	55	8	0	63	648
% App Total	14.5%	84.4%	1.1%	0.0%		20.6%	79.4%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	87.3%	12.7%	0.0%		
PHF	.690	.807	.500	.000	.825	.438	.614	.000	.000	.654	.000	.000	.000	.000	.000	.000	.764	.667	.000	.829	.818

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-019 5th Street & H Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	5th Street Southbound					H Street Westbound					5th Street Northbound					H Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	0	0	0	0	0	0	0	0	0	0	3	0	38	0	41	0	2	0	0	2	43	0
18:45	0	0	0	0	0	0	0	0	0	0	4	0	33	0	37	0	2	0	0	2	39	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	18	0	18	0	6	0	0	6	24	0
19:15	0	0	0	0	0	0	0	0	0	0	3	0	19	0	22	0	2	0	0	2	24	0
Total	0	0	0	0	0	0	0	0	0	0	10	0	108	0	118	0	12	0	0	12	130	0
Grand Total	0	0	0	0	0	0	0	0	0	0	10	0	108	0	118	0	12	0	0	12	130	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		8.5%	0.0%	91.5%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%	83.1%	0.0%	90.8%	0.0%	9.2%	0.0%	0.0%	9.2%	100.0%	

PM PEAK HOUR	5th Street Southbound					H Street Westbound					5th Street Northbound					H Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0	0	0	0	0	0	0	0	3	0	38	0	41	0	2	0	0	2	43
18:45	0	0	0	0	0	0	0	0	0	0	4	0	33	0	37	0	2	0	0	2	39
19:00	0	0	0	0	0	0	0	0	0	0	0	0	18	0	18	0	6	0	0	6	24
19:15	0	0	0	0	0	0	0	0	0	0	3	0	19	0	22	0	2	0	0	2	24
Total Volume	0	0	0	0	0	0	0	0	0	0	10	0	108	0	118	0	12	0	0	12	130
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		8.5%	0.0%	91.5%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.000	.711	.000	.720	.000	.500	.000	.000	.500	.756

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-020 6th Street & H Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	6th Street Southbound					H Street Westbound					6th Street Northbound					H Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	0	2	0	0	2	0	0	0	0	0	0	1	13	0	14	1	32	5	0	38	54	0
18:45	0	1	0	0	1	0	0	0	0	0	0	0	7	0	7	1	32	2	0	35	43	0
19:00	0	3	0	0	3	0	0	0	0	0	0	0	9	0	9	0	19	5	0	24	36	0
19:15	0	2	0	0	2	0	0	0	0	0	0	1	9	0	10	2	18	4	0	24	36	0
Total	0	8	0	0	8	0	0	0	0	0	0	2	38	0	40	4	101	16	0	121	169	0
Grand Total	0	8	0	0	8	0	0	0	0	0	0	2	38	0	40	4	101	16	0	121	169	0
Apprch %	0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	5.0%	95.0%	0.0%		3.3%	83.5%	13.2%	0.0%			
Total %	0.0%	4.7%	0.0%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	22.5%	0.0%	23.7%	2.4%	59.8%	9.5%	0.0%	71.6%	100.0%	

PM PEAK HOUR	6th Street Southbound					H Street Westbound					6th Street Northbound					H Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	2	0	0	2	0	0	0	0	0	0	1	13	0	14	1	32	5	0	38	54
18:45	0	1	0	0	1	0	0	0	0	0	0	0	7	0	7	1	32	2	0	35	43
19:00	0	3	0	0	3	0	0	0	0	0	0	0	9	0	9	0	19	5	0	24	36
19:15	0	2	0	0	2	0	0	0	0	0	0	1	9	0	10	2	18	4	0	24	36
Total Volume	0	8	0	0	8	0	0	0	0	0	0	2	38	0	40	4	101	16	0	121	169
% App Total	0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	5.0%	95.0%	0.0%		3.3%	83.5%	13.2%	0.0%		
PHF	.000	.667	.000	.000	.667	.000	.000	.000	.000	.000	.000	.500	.731	.000	.714	.500	.789	.800	.000	.796	.782

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-021 8th Street & H Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	8th Street Southbound					H Street Westbound					8th Street Northbound					H Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	0	0	0	0	0	0	0	0	0	0	0	38	12	0	50	9	33	0	0	42	92	0
18:45	0	0	0	0	0	0	0	0	0	0	0	23	16	0	39	5	31	0	0	36	75	0
19:00	0	0	0	0	0	0	0	0	0	0	0	16	15	0	31	2	24	0	0	26	57	0
19:15	0	0	0	0	0	0	0	0	0	0	0	21	12	0	33	2	24	0	0	26	59	0
Total	0	0	0	0	0	0	0	0	0	0	0	98	55	0	153	18	112	0	0	130	283	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	98	55	0	153	18	112	0	0	130	283	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	64.1%	35.9%	0.0%		13.8%	86.2%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.6%	19.4%	0.0%	54.1%	6.4%	39.6%	0.0%	0.0%	45.9%	100.0%	

PM PEAK HOUR	8th Street Southbound					H Street Westbound					8th Street Northbound					H Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0	0	0	0	0	0	0	0	0	38	12	0	50	9	33	0	0	42	92
18:45	0	0	0	0	0	0	0	0	0	0	0	23	16	0	39	5	31	0	0	36	75
19:00	0	0	0	0	0	0	0	0	0	0	0	16	15	0	31	2	24	0	0	26	57
19:15	0	0	0	0	0	0	0	0	0	0	0	21	12	0	33	2	24	0	0	26	59
Total Volume	0	0	0	0	0	0	0	0	0	0	0	98	55	0	153	18	112	0	0	130	283
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	64.1%	35.9%	0.0%		13.8%	86.2%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.645	.859	.000	.765	.500	.848	.000	.000	.774	.769

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-022 Jibboom Street & I Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	Jibboom Street Southbound					I Street Westbound					Jibboom Street Northbound					I Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	4	0	91	0	95	0	24	16	1	41	0	0	0	0	0	104	23	0	0	127	263	1
18:45	5	0	65	0	70	0	36	7	0	43	0	0	0	0	0	60	33	0	0	93	206	0
19:00	3	0	61	0	64	0	25	9	0	34	0	0	0	0	0	56	19	0	0	75	173	0
19:15	3	0	56	0	59	0	17	3	0	20	0	0	0	0	0	48	16	0	0	64	143	0
Total	15	0	273	0	288	0	102	35	1	138	0	0	0	0	0	268	91	0	0	359	785	1
Grand Total	15	0	273	0	288	0	102	35	1	138	0	0	0	0	0	268	91	0	0	359	785	1
Apprch %	5.2%	0.0%	94.8%	0.0%		0.0%	73.9%	25.4%	0.7%		0.0%	0.0%	0.0%	0.0%		74.7%	25.3%	0.0%	0.0%			
Total %	1.9%	0.0%	34.8%	0.0%	36.7%	0.0%	13.0%	4.5%	0.1%	17.6%	0.0%	0.0%	0.0%	0.0%	0.0%	34.1%	11.6%	0.0%	0.0%	45.7%	100.0%	

PM PEAK HOUR	Jibboom Street Southbound					I Street Westbound					Jibboom Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	4	0	91	0	95	0	24	16	1	41	0	0	0	0	0	104	23	0	0	127	263
18:45	5	0	65	0	70	0	36	7	0	43	0	0	0	0	0	60	33	0	0	93	206
19:00	3	0	61	0	64	0	25	9	0	34	0	0	0	0	0	56	19	0	0	75	173
19:15	3	0	56	0	59	0	17	3	0	20	0	0	0	0	0	48	16	0	0	64	143
Total Volume	15	0	273	0	288	0	102	35	1	138	0	0	0	0	0	268	91	0	0	359	785
% App Total	5.2%	0.0%	94.8%	0.0%		0.0%	73.9%	25.4%	0.7%		0.0%	0.0%	0.0%	0.0%		74.7%	25.3%	0.0%	0.0%		
PHF	.750	.000	.750	.000	.758	.000	.708	.547	.250	.802	.000	.000	.000	.000	.000	.644	.689	.000	.000	.707	.746

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-009 7th Street & I Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	7th Street Southbound					I Street Westbound					7th Street Northbound					I Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	29	27	0	56	19	122	0	0	141	0	0	0	0	0	0	0	0	0	0	197	0
7:15	0	36	34	0	70	20	146	0	0	166	0	0	0	0	0	0	0	0	0	0	236	0
7:30	0	44	39	0	83	20	179	0	0	199	0	0	0	0	0	0	0	0	0	0	282	0
7:45	0	49	62	0	111	30	207	0	0	237	0	0	0	0	0	0	0	0	0	0	348	0
Total	0	158	162	0	320	89	654	0	0	743	0	0	0	0	0	0	0	0	0	0	1063	0
8:00	0	59	53	0	112	33	191	0	0	224	0	0	0	0	0	0	0	0	0	0	336	0
8:15	0	49	48	0	97	34	179	0	0	213	0	0	0	0	0	0	0	0	0	0	310	0
8:30	0	67	77	0	144	34	179	0	0	213	0	0	0	0	0	0	0	0	0	0	357	0
8:45	0	54	42	0	96	37	184	0	0	221	0	0	0	0	0	0	0	0	0	0	317	0
Total	0	229	220	0	449	138	733	0	0	871	0	0	0	0	0	0	0	0	0	0	1320	0
16:00	0	50	67	0	117	32	408	0	0	440	0	0	0	0	0	0	0	0	0	0	557	0
16:15	0	43	71	0	114	29	427	0	0	456	0	0	0	0	0	0	0	0	0	0	570	0
16:30	0	53	74	0	127	18	463	0	0	481	0	0	0	0	0	0	0	0	0	0	608	0
16:45	0	43	80	0	123	34	397	0	0	431	0	0	0	0	0	0	0	0	0	0	554	0
Total	0	189	292	0	481	113	1695	0	0	1808	0	0	0	0	0	0	0	0	0	0	2289	0
17:00	0	72	91	0	163	32	425	0	0	457	0	0	0	0	0	0	0	0	0	0	620	0
17:15	0	65	97	0	162	28	493	0	0	521	0	0	0	0	0	0	0	0	0	0	683	0
17:30	0	53	107	0	160	18	384	0	0	402	0	0	0	0	0	0	0	0	0	0	562	0
17:45	0	36	84	0	120	37	428	0	0	465	0	0	0	0	0	0	0	0	0	0	585	0
Total	0	226	379	0	605	115	1730	0	0	1845	0	0	0	0	0	0	0	0	0	0	2450	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	22	53	0	75	14	313	0	0	327	0	0	0	0	0	0	0	0	0	0	402	0
18:45	0	18	34	0	52	23	243	0	0	266	0	0	0	0	0	0	0	0	0	0	318	0
Total	0	40	87	0	127	37	556	0	0	593	0	0	0	0	0	0	0	0	0	0	720	0
19:00	0	11	31	0	42	18	235	0	0	253	0	0	0	0	0	0	0	0	0	0	295	0
19:15	0	12	18	0	30	14	198	0	0	212	0	0	0	0	0	0	0	0	0	0	242	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	23	49	0	72	32	433	0	0	465	0	0	0	0	0	0	0	0	0	0	537	0
18:30	0	22	53	0	75	14	313	0	0	327	0	0	0	0	0	0	0	0	0	0	402	0
18:45	0	18	34	0	52	23	243	0	0	266	0	0	0	0	0	0	0	0	0	0	318	0
19:00	0	11	31	0	42	18	235	0	0	253	0	0	0	0	0	0	0	0	0	0	295	0
19:15	0	12	18	0	30	14	198	0	0	212	0	0	0	0	0	0	0	0	0	0	242	0
Total	0	63	136	0	199	69	989	0	0	1058	0	0	0	0	0	0	0	0	0	0	1257	0
Grand Total	0	928	1325	0	2253	593	6790	0	0	7383	0	0	0	0	0	0	0	0	0	0	9636	0
Apprch %	0.0%	41.2%	58.8%	0.0%		8.0%	92.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	9.6%	13.8%	0.0%	23.4%	6.2%	70.5%	0.0%	0.0%	76.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	7th Street Southbound					I Street Westbound					7th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	49	62	0	111	30	207	0	0	237	0	0	0	0	0	0	0	0	0	0	348
8:00	0	59	53	0	112	33	191	0	0	224	0	0	0	0	0	0	0	0	0	0	336
8:15	0	49	48	0	97	34	179	0	0	213	0	0	0	0	0	0	0	0	0	0	310
8:30	0	67	77	0	144	34	179	0	0	213	0	0	0	0	0	0	0	0	0	0	357
Total Volume	0	224	240	0	464	131	756	0	0	887	0	0	0	0	0	0	0	0	0	0	1351
% App Total	0.0%	48.3%	51.7%	0.0%		14.8%	85.2%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.836	.779	.000	.806	.963	.913	.000	.000	.936	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.946

NOON PEAK	7th Street Southbound					I Street Westbound					7th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	53	74	0	127	18	463	0	0	481	0	0	0	0	0	0	0	0	0	0	608
16:45	0	43	80	0	123	34	397	0	0	431	0	0	0	0	0	0	0	0	0	0	554
17:00	0	72	91	0	163	32	425	0	0	457	0	0	0	0	0	0	0	0	0	0	620
17:15	0	65	97	0	162	28	493	0	0	521	0	0	0	0	0	0	0	0	0	0	683
Total Volume	0	233	342	0	575	112	1778	0	0	1890	0	0	0	0	0	0	0	0	0	0	2465
% App Total	0.0%	40.5%	59.5%	0.0%		5.9%	94.1%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.809	.881	.000	.882	.824	.902	.000	.000	.907	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.902

PM PEAK HOUR	7th Street Southbound					I Street Westbound					7th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	22	53	0	75	14	313	0	0	327	0	0	0	0	0	0	0	0	0	0	402
18:45	0	18	34	0	52	23	243	0	0	266	0	0	0	0	0	0	0	0	0	0	318
19:00	0	11	31	0	42	18	235	0	0	253	0	0	0	0	0	0	0	0	0	0	295
19:15	0	12	18	0	30	14	198	0	0	212	0	0	0	0	0	0	0	0	0	0	242
Total Volume	0	63	136	0	199	69	989	0	0	1058	0	0	0	0	0	0	0	0	0	0	1257
% App Total	0.0%	31.7%	68.3%	0.0%		6.5%	93.5%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.716	.642	.000	.663	.750	.790	.000	.000	.809	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.782

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-010 8th Street & I Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	8th Street Southbound					I Street Westbound					8th Street Northbound					I Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	0	0	0	0	0	119	10	0	129	27	66	0	0	93	0	0	0	0	0	222	0
7:15	0	0	0	0	0	0	147	11	0	158	20	71	0	0	91	0	0	0	0	0	249	0
7:30	0	0	0	0	0	0	184	25	0	209	22	77	0	0	99	0	0	0	0	0	308	0
7:45	0	0	0	0	0	0	214	25	0	239	24	92	0	0	116	0	0	0	0	0	355	0
Total	0	0	0	0	0	0	664	71	0	735	93	306	0	0	399	0	0	0	0	0	1134	0
8:00	0	0	0	0	0	0	203	25	0	228	28	65	0	0	93	0	0	0	0	0	321	0
8:15	0	0	0	0	0	0	182	33	0	215	36	85	0	0	121	0	0	0	0	0	336	0
8:30	0	0	0	0	0	0	181	27	0	208	34	88	0	0	122	0	0	0	0	0	330	0
8:45	0	0	0	0	0	0	183	36	0	219	39	67	0	0	106	0	0	0	0	0	325	0
Total	0	0	0	0	0	0	749	121	0	870	137	305	0	0	442	0	0	0	0	0	1312	0
16:00	0	0	0	0	0	0	355	7	0	362	87	84	0	0	171	0	0	0	0	0	533	0
16:15	0	0	0	0	0	0	397	9	0	406	62	72	0	0	134	0	0	0	0	0	540	0
16:30	0	0	0	0	0	0	379	9	0	388	109	118	0	0	227	0	0	0	0	0	615	0
16:45	0	0	0	0	0	0	357	5	0	362	79	112	0	0	191	0	0	0	0	0	553	0
Total	0	0	0	0	0	0	1488	30	0	1518	337	386	0	0	723	0	0	0	0	0	2241	0
17:00	0	0	0	0	0	0	351	10	0	361	88	139	0	0	227	0	0	0	0	0	588	0
17:15	0	0	0	0	0	0	401	5	0	406	116	110	0	0	226	0	0	0	0	0	632	0
17:30	0	0	0	0	0	0	324	4	0	328	76	108	0	0	184	0	0	0	0	0	512	0
17:45	0	0	0	0	0	0	401	6	0	407	56	109	0	0	165	0	0	0	0	0	572	0
Total	0	0	0	0	0	0	1477	25	0	1502	336	466	0	0	802	0	0	0	0	0	2304	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	270	6	0	276	44	45	0	0	89	0	0	0	0	0	365	0
18:45	0	0	0	0	0	0	215	3	0	218	37	36	0	0	73	0	0	0	0	0	291	0
Total	0	0	0	0	0	0	485	9	0	494	81	81	0	0	162	0	0	0	0	0	656	0
19:00	0	0	0	0	0	0	210	6	0	216	44	25	0	0	69	0	0	0	0	0	285	0
19:15	0	0	0	0	0	0	183	5	0	188	24	26	0	0	50	0	0	0	0	0	238	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	393	11	0	404	68	51	0	0	119	0	0	0	0	0	523	0
18:30	0	0	0	0	0	0	270	6	0	276	44	45	0	0	89	0	0	0	0	0	365	0
18:45	0	0	0	0	0	0	215	3	0	218	37	36	0	0	73	0	0	0	0	0	291	0
19:00	0	0	0	0	0	0	210	6	0	216	44	25	0	0	69	0	0	0	0	0	285	0
19:15	0	0	0	0	0	0	183	5	0	188	24	26	0	0	50	0	0	0	0	0	238	0
Total	0	0	0	0	0	0	878	20	0	898	149	132	0	0	281	0	0	0	0	0	1179	0
Grand Total	0	0	0	0	0	0	6134	287	0	6421	1201	1727	0	0	2928	0	0	0	0	0	9349	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	95.5%	4.5%	0.0%		41.0%	59.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.6%	3.1%	0.0%	68.7%	12.8%	18.5%	0.0%	0.0%	31.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	8th Street Southbound					I Street Westbound					8th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	0	0	0	0	214	25	0	239	24	92	0	0	116	0	0	0	0	0	355
8:00	0	0	0	0	0	0	203	25	0	228	28	65	0	0	93	0	0	0	0	0	321
8:15	0	0	0	0	0	0	182	33	0	215	36	85	0	0	121	0	0	0	0	0	336
8:30	0	0	0	0	0	0	181	27	0	208	34	88	0	0	122	0	0	0	0	0	330
Total Volume	0	0	0	0	0	0	780	110	0	890	122	330	0	0	452	0	0	0	0	0	1342
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	87.6%	12.4%	0.0%		27.0%	73.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.911	.833	.000	.931	.847	.897	.000	.000	.926	.000	.000	.000	.000	.000	.945

NOON PEAK	8th Street Southbound					I Street Westbound					8th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	379	9	0	388	109	118	0	0	227	0	0	0	0	0	615
16:45	0	0	0	0	0	0	357	5	0	362	79	112	0	0	191	0	0	0	0	0	553
17:00	0	0	0	0	0	0	351	10	0	361	88	139	0	0	227	0	0	0	0	0	588
17:15	0	0	0	0	0	0	401	5	0	406	116	110	0	0	226	0	0	0	0	0	632
Total Volume	0	0	0	0	0	0	1488	29	0	1517	392	479	0	0	871	0	0	0	0	0	2388
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	98.1%	1.9%	0.0%		45.0%	55.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.928	.725	.000	.934	.845	.862	.000	.000	.959	.000	.000	.000	.000	.000	.945

PM PEAK HOUR	8th Street Southbound					I Street Westbound					8th Street Northbound					I Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0	0	0	0	270	6	0	276	44	45	0	0	89	0	0	0	0	0	365
18:45	0	0	0	0	0	0	215	3	0	218	37	36	0	0	73	0	0	0	0	0	291
19:00	0	0	0	0	0	0	210	6	0	216	44	25	0	0	69	0	0	0	0	0	285
19:15	0	0	0	0	0	0	183	5	0	188	24	26	0	0	50	0	0	0	0	0	238
Total Volume	0	0	0	0	0	0	878	20	0	898	149	132	0	0	281	0	0	0	0	0	1179
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	97.8%	2.2%	0.0%		53.0%	47.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.813	.833	.000	.813	.847	.733	.000	.000	.789	.000	.000	.000	.000	.000	.808

All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015
Page No : 1

Groups Printed- Unshifted

	3rd Street Southbound					J Street Westbound					3rd Street Northbound					I-5 NB Off-Ramp Northeastbound					J Street Eastbound					
Start Time	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Int. Total
07:00	15	22	0	0	37	0	0	0	0	0	0	0	0	8	8	0	7	217	69	293	9	280	147	0	436	774
07:15	10	32	0	0	42	0	0	0	0	0	0	0	0	8	8	0	16	257	65	338	8	319	169	0	496	884
07:30	21	36	0	0	57	0	0	0	0	0	0	0	0	12	12	0	13	280	67	360	10	330	152	0	492	921
07:45	17	53	0	0	70	0	0	0	0	0	0	0	0	13	13	0	11	322	71	404	14	370	168	0	552	1039
Total	63	143	0	0	206	0	0	0	0	0	0	0	0	41	41	0	47	1076	272	1395	41	1299	636	0	1976	3618
08:00	15	37	0	0	52	0	0	0	0	0	0	0	0	11	11	0	16	332	52	400	12	327	165	0	504	967
08:15	21	36	0	0	57	0	0	0	0	0	0	0	0	12	12	0	11	302	61	374	6	335	137	0	478	921
08:30	23	36	0	0	59	0	0	0	0	0	0	0	0	12	12	0	17	334	50	401	18	306	131	0	455	927
08:45	21	26	0	0	47	0	0	0	0	0	0	0	0	14	14	0	21	301	41	363	14	299	134	0	447	871
Total	80	135	0	0	215	0	0	0	0	0	0	0	0	49	49	0	65	1269	204	1538	50	1267	567	0	1884	3686
16:00	48	107	0	0	155	0	0	0	0	0	0	0	0	20	20	0	11	89	16	116	14	159	55	0	228	519
16:15	47	53	0	0	100	0	0	0	0	0	0	0	0	21	21	0	10	91	10	111	19	201	83	0	303	535
16:30	50	91	0	0	141	0	0	0	0	0	0	0	2	33	35	0	11	63	4	78	12	185	52	0	249	503
16:45	66	96	0	0	162	0	0	0	0	0	0	0	0	37	37	0	3	60	7	70	6	174	94	0	274	543
Total	211	347	0	0	558	0	0	0	0	0	0	0	2	111	113	0	35	303	37	375	51	719	284	0	1054	2100
17:00	46	106	0	0	152	0	0	0	0	0	0	0	0	34	34	0	5	41	8	54	3	177	90	0	270	510
17:15	61	94	0	0	155	0	0	0	0	0	0	0	0	42	42	0	6	26	8	40	14	163	84	0	261	498
17:30	49	105	0	0	154	0	0	0	0	0	0	0	0	40	40	0	3	29	3	35	9	164	89	0	262	491
17:45	32	76	0	0	108	0	0	0	0	0	0	0	1	43	44	0	8	28	6	42	11	175	44	0	230	424
Total	188	381	0	0	569	0	0	0	0	0	0	0	1	159	160	0	22	124	25	171	37	679	307	0	1023	1923
18:30	37	46	0	0	83	0	0	0	0	0	0	0	0	23	23	0	2	36	2	40	7	128	27	0	162	308
18:45	58	57	0	0	115	0	0	0	0	0	0	0	0	18	18	0	10	26	4	40	10	127	25	0	162	335
Total	95	103	0	0	198	0	0	0	0	0	0	0	0	41	41	0	12	62	6	80	17	255	52	0	324	643
19:00	46	43	0	0	89	0	0	0	0	0	0	0	0	16	16	0	6	54	7	67	11	90	26	0	127	299
19:15	45	68	0	0	113	0	0	0	0	0	0	0	0	11	11	0	17	57	8	82	12	73	18	0	103	309
Grand Total	728	1220	0	0	1948	0	0	0	0	0	0	0	3	428	431	0	204	2945	559	3708	219	4382	1890	0	6491	12578
Apprch %	37.4	62.6	0	0		0	0	0	0		0	0	0.7	99.3		0	5.5	79.4	15.1		3.4	67.5	29.1	0		
Total %	5.8	9.7	0	0	15.5	0	0	0	0	0	0	0	0	3.4	3.4	0	1.6	23.4	4.4	29.5	1.7	34.8	15	0	51.6	

All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015

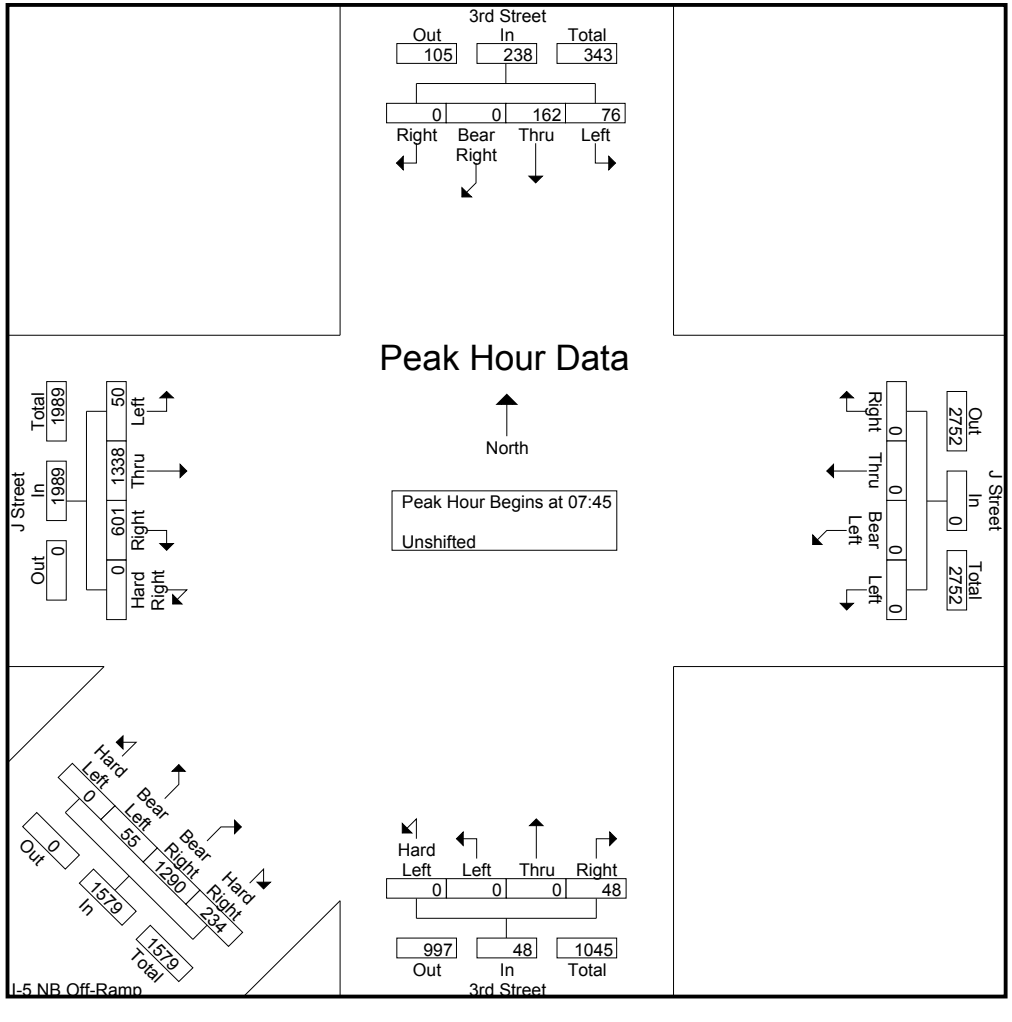
	3rd Street Southbound					J Street Westbound					3rd Street Northbound					I-5 NB Off-Ramp Northeastbound					J Street Eastbound					
Start Time	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45																										
07:45	17	**53**	0	0	**70**	0	0	0	0	0	0	0	0	**13**	**13**	0	11	322	**71**	**404**	14	**370**	**168**	0	**552**	**1039**
08:00	15	37	0	0	52	0	0	0	0	0	0	0	0	11	11	0	16	332	52	400	12	327	165	0	504	967
08:15	21	36	0	0	57	0	0	0	0	0	0	0	0	12	12	0	11	302	61	374	6	335	137	0	478	921
08:30	**23**	36	0	0	59	0	0	0	0	0	0	0	0	12	12	0	**17**	**334**	50	401	**18**	306	131	0	455	927
Total Volume	76	162	0	0	238	0	0	0	0	0	0	0	0	48	48	0	55	1290	234	1579	50	1338	601	0	1989	3854
% App. Total	31.9	68.1	0	0		0	0	0	0		0	0	0	100		0	3.5	81.7	14.8		2.5	67.3	30.2	0		
PHF	.826	.764	.000	.000	.850	.000	.000	.000	.000	.000	.000	.000	.000	.923	.923	.000	.809	.966	.824	.977	.694	.904	.894	.000	.901	.927

All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015
Page No : 3



All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015

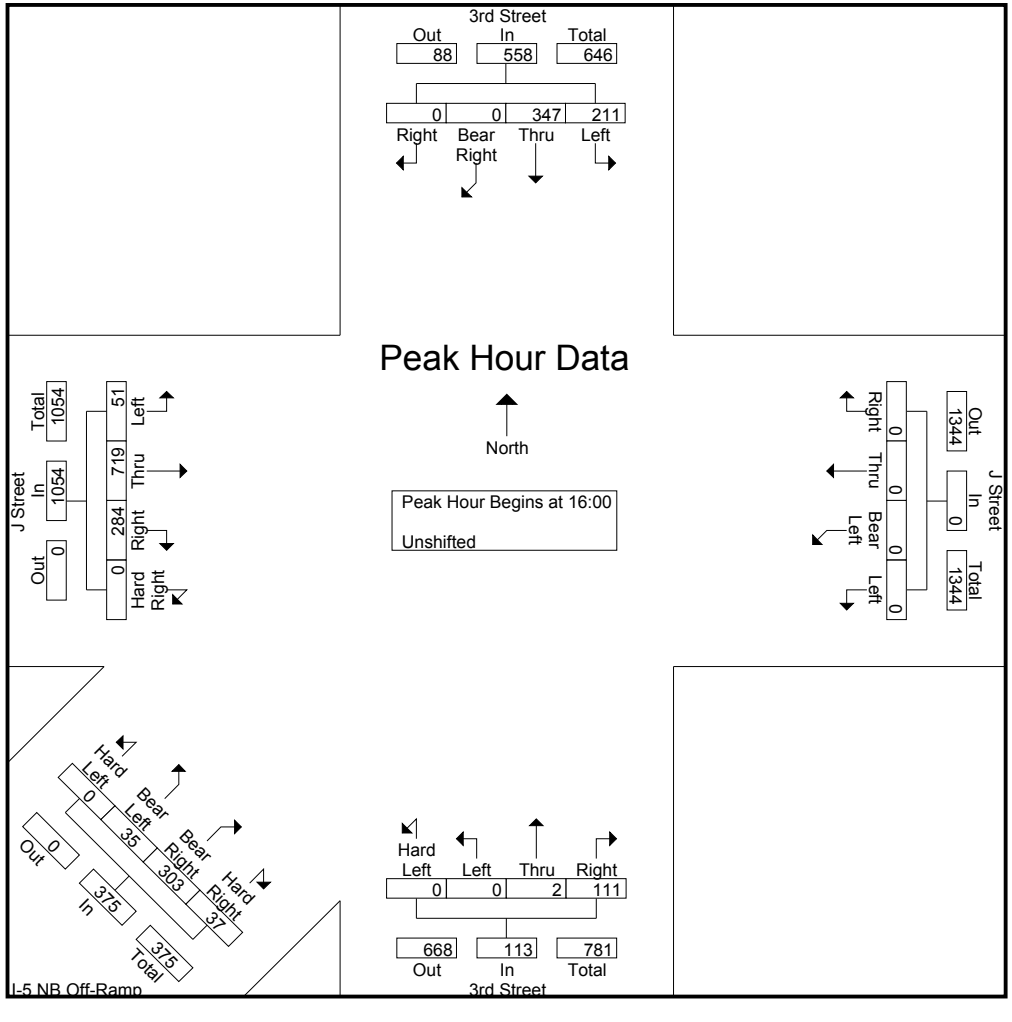
	3rd Street Southbound					J Street Westbound					3rd Street Northbound					I-5 NB Off-Ramp Northeastbound					J Street Eastbound					
Start Time	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 16:00																										
16:00	48	**107**	0	0	155	0	0	0	0	0	0	0	0	20	20	0	**11**	89	**16**	**116**	14	159	55	0	228	519
16:15	47	53	0	0	100	0	0	0	0	0	0	0	0	21	21	0	10	**91**	10	111	**19**	**201**	83	0	**303**	535
16:30	50	91	0	0	141	0	0	0	0	0	0	0	**2**	33	35	0	11	63	4	78	12	185	52	0	249	503
16:45	**66**	96	0	0	**162**	0	0	0	0	0	0	0	0	**37**	**37**	0	3	60	7	70	6	174	**94**	0	274	**543**
Total Volume	211	347	0	0	558	0	0	0	0	0	0	0	2	111	113	0	35	303	37	375	51	719	284	0	1054	2100
% App. Total	37.8	62.2	0	0		0	0	0	0		0	0	1.8	98.2		0	9.3	80.8	9.9		4.8	68.2	26.9	0		
PHF	.799	.811	.000	.000	.861	.000	.000	.000	.000	.000	.000	.000	.250	.750	.764	.000	.795	.832	.578	.808	.671	.894	.755	.000	.870	.967

All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015
Page No : 5



All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015

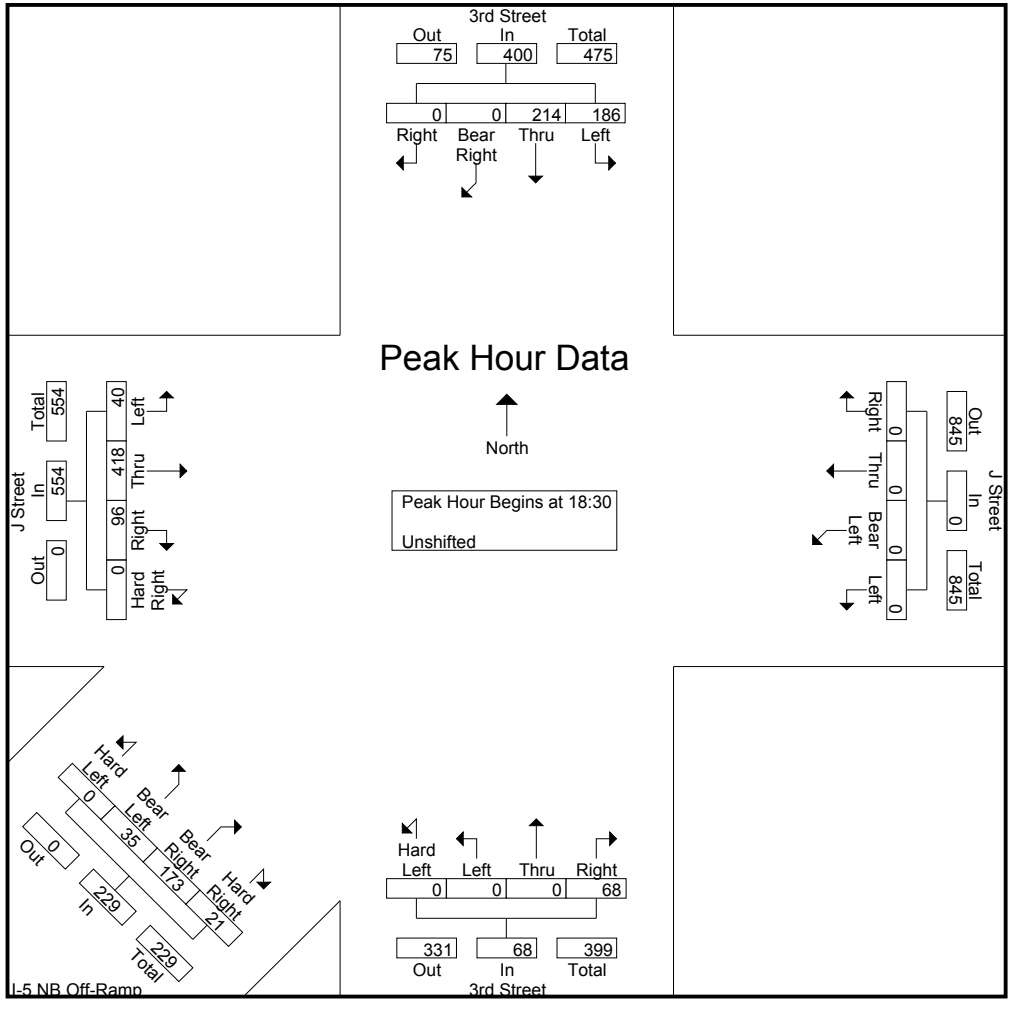
	3rd Street Southbound					J Street Westbound					3rd Street Northbound					I-5 NB Off-Ramp Northeastbound					J Street Eastbound					
Start Time	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 18:30 to 19:15 - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 18:30																										
18:30	37	46	0	0	83	0	0	0	0	0	0	0	0	**23**	**23**	0	2	36	2	40	7	**128**	**27**	0	**162**	308
18:45	**58**	57	0	0	**115**	0	0	0	0	0	0	0	0	18	18	0	10	26	4	40	10	127	25	0	162	**335**
19:00	46	43	0	0	89	0	0	0	0	0	0	0	0	16	16	0	6	54	7	67	11	90	26	0	127	299
19:15	45	**68**	0	0	113	0	0	0	0	0	0	0	0	11	11	0	**17**	**57**	**8**	**82**	**12**	73	18	0	103	309
Total Volume	186	214	0	0	400	0	0	0	0	0	0	0	0	68	68	0	35	173	21	229	40	418	96	0	554	1251
% App. Total	46.5	53.5	0	0		0	0	0	0		0	0	0	100		0	15.3	75.5	9.2		7.2	75.5	17.3	0		
PHF	.802	.787	.000	.000	.870	.000	.000	.000	.000	.000	.000	.000	.000	.739	.739	.000	.515	.759	.656	.698	.833	.816	.889	.000	.855	.934

All Traffic Data

(916) 771-8700
orders@atdtraffic.com

City of Sacramento
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 15-7845-011 3rd Street-J Street-I-5 Ramps
Site Code : 00000000
Start Date : 10/28/2015
Page No : 7



ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-012 5th Street & J Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	5th Street Southbound					J Street Westbound					5th Street Northbound					J Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	0	0	0	0	0	0	0	0	0	0	16	26	0	42	112	378	7	0	497	539	0
7:15	0	0	0	0	0	0	0	0	0	0	0	29	36	0	65	105	483	16	0	604	669	0
7:30	0	0	0	0	0	0	0	0	0	0	0	45	47	0	92	162	474	19	0	655	747	0
7:45	0	0	0	0	0	0	0	0	0	0	0	41	44	0	85	150	530	23	0	703	788	0
Total	0	0	0	0	0	0	0	0	0	0	0	131	153	0	284	529	1865	65	0	2459	2743	0
8:00	0	0	0	0	0	0	0	0	0	0	0	40	60	0	100	147	549	12	0	708	808	0
8:15	0	0	0	0	0	0	0	0	0	0	0	41	50	0	91	140	522	18	0	680	771	0
8:30	0	0	0	0	0	0	0	0	0	0	0	48	49	0	97	121	511	13	0	645	742	0
8:45	0	0	0	0	0	0	0	0	0	0	0	41	44	0	85	101	474	21	0	596	681	0
Total	0	0	0	0	0	0	0	0	0	0	0	170	203	0	373	509	2056	64	0	2629	3002	0
16:00	0	0	0	0	0	0	0	0	0	0	0	47	45	0	92	87	228	15	0	330	422	0
16:15	0	0	0	0	0	0	0	0	0	0	0	45	52	0	97	58	289	22	0	369	466	0
16:30	0	0	0	0	0	0	0	0	0	0	0	56	51	0	107	103	236	25	0	364	471	0
16:45	0	0	0	0	0	0	0	0	0	0	0	84	55	0	139	101	243	16	0	360	499	0
Total	0	0	0	0	0	0	0	0	0	0	0	232	203	0	435	349	996	78	0	1423	1858	0
17:00	0	0	0	0	0	0	0	0	0	0	0	89	43	0	132	83	225	23	0	331	463	0
17:15	0	0	0	0	0	0	0	0	0	0	0	98	45	0	143	82	202	10	0	294	437	0
17:30	0	0	0	0	0	0	0	0	0	0	0	104	39	0	143	68	220	7	0	295	438	0
17:45	0	0	0	0	0	0	0	0	0	0	0	95	56	0	151	68	210	10	0	288	439	0
Total	0	0	0	0	0	0	0	0	0	0	0	386	183	0	569	301	857	50	0	1208	1777	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	90	40	0	130	56	160	9	0	225	355	0
18:45	0	0	0	0	0	0	0	0	0	0	0	72	40	0	112	65	156	5	0	226	338	0
Total	0	0	0	0	0	0	0	0	0	0	0	162	80	0	242	121	316	14	0	451	693	0
19:00	0	0	0	0	0	0	0	0	0	0	0	32	31	0	63	65	146	9	0	220	283	0
19:15	0	0	0	0	0	0	0	0	0	0	0	23	29	0	52	46	134	9	0	189	241	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	55	60	0	115	111	280	18	0	409	524	0
18:30	0	0	0	0	0	0	0	0	0	0	0	90	40	0	130	56	160	9	0	225	355	0
18:45	0	0	0	0	0	0	0	0	0	0	0	72	40	0	112	65	156	5	0	226	338	0
19:00	0	0	0	0	0	0	0	0	0	0	0	32	31	0	63	65	146	9	0	220	283	0
19:15	0	0	0	0	0	0	0	0	0	0	0	23	29	0	52	46	134	9	0	189	241	0
Total	0	0	0	0	0	0	0	0	0	0	0	217	140	0	357	232	596	32	0	860	1217	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1353	1022	0	2375	2152	6966	321	0	9439	11814	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	57.0%	43.0%	0.0%		22.8%	73.8%	3.4%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.5%	8.7%	0.0%	20.1%	18.2%	59.0%	2.7%	0.0%	79.9%	100.0%	

AM PEAK HOUR	5th Street Southbound					J Street Westbound					5th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	0	0	0	0	0	0	0	0	0	0	45	47	0	92	162	474	19	0	655	747
7:45	0	0	0	0	0	0	0	0	0	0	0	41	44	0	85	150	530	23	0	703	788
8:00	0	0	0	0	0	0	0	0	0	0	0	40	60	0	100	147	549	12	0	708	808
8:15	0	0	0	0	0	0	0	0	0	0	0	41	50	0	91	140	522	18	0	680	771
Total Volume	0	0	0	0	0	0	0	0	0	0	0	167	201	0	368	599	2075	72	0	2746	3114
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	45.4%	54.6%	0.0%		21.8%	75.6%	2.6%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.928	.838	.000	.920	.924	.945	.783	.000	.970	.963

NOON PEAK	5th Street Southbound					J Street Westbound					5th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:15 to 17:15																					
Peak Hour For Entire Intersection Begins at 16:15																					
16:15	0	0	0	0	0	0	0	0	0	0	0	45	52	0	97	58	289	22	0	369	466
16:30	0	0	0	0	0	0	0	0	0	0	0	56	51	0	107	103	236	25	0	364	471
16:45	0	0	0	0	0	0	0	0	0	0	0	84	55	0	139	101	243	16	0	360	499
17:00	0	0	0	0	0	0	0	0	0	0	0	89	43	0	132	83	225	23	0	331	463
Total Volume	0	0	0	0	0	0	0	0	0	0	0	274	201	0	475	345	993	86	0	1424	1899
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	57.7%	42.3%	0.0%		24.2%	69.7%	6.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.770	.914	.000	.854	.837	.859	.860	.000	.965	.951

PM PEAK HOUR	5th Street Southbound					J Street Westbound					5th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	0	0	0	0	0	0	0	0	0	0	0	90	40	0	130	56	160	9	0	225	355
18:45	0	0	0	0	0	0	0	0	0	0	0	72	40	0	112	65	156	5	0	226	338
19:00	0	0	0	0	0	0	0	0	0	0	0	32	31	0	63	65	146	9	0	220	283
19:15	0	0	0	0	0	0	0	0	0	0	0	23	29	0	52	46	134	9	0	189	241
Total Volume	0	0	0	0	0	0	0	0	0	0	0	217	140	0	357	232	596	32	0	860	1217
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	60.8%	39.2%	0.0%		27.0%	69.3%	3.7%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.603	.875	.000	.687	.892	.931	.889	.000	.951	.857

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-013 7th Street & J Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	7th Street Southbound					J Street Westbound					7th Street Northbound					J Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	13	30	0	0	43	0	0	0	0	0	0	0	0	0	0	0	332	52	0	384	427	0
7:15	18	34	0	0	52	0	0	0	0	0	0	0	0	0	0	0	427	55	0	482	534	0
7:30	29	35	0	0	64	0	0	0	0	0	0	0	0	0	0	0	427	59	0	486	550	0
7:45	17	54	0	0	71	0	0	0	0	0	0	0	0	0	0	0	476	66	0	542	613	0
Total	77	153	0	0	230	0	0	0	0	0	0	0	0	0	0	0	1662	232	0	1894	2124	0
8:00	21	55	0	0	76	0	0	0	0	0	0	0	0	0	0	0	487	60	0	547	623	0
8:15	31	50	0	0	81	0	0	0	0	0	0	0	0	0	0	0	447	72	0	519	600	0
8:30	35	56	0	0	91	0	0	0	0	0	0	0	0	0	0	0	470	59	0	529	620	0
8:45	36	48	0	0	84	0	0	0	0	0	0	0	0	0	0	0	427	78	0	505	589	0
Total	123	209	0	0	332	0	0	0	0	0	0	0	0	0	0	0	1831	269	0	2100	2432	0
16:00	20	69	0	0	89	0	0	0	0	0	0	0	0	0	0	0	216	35	0	251	340	0
16:15	17	58	0	0	75	0	0	0	0	0	0	0	0	0	0	0	279	45	0	324	399	0
16:30	17	69	0	0	86	0	0	0	0	0	0	0	0	0	0	0	236	34	0	270	356	0
16:45	10	76	0	0	86	0	0	0	0	0	0	0	0	0	0	0	247	45	0	292	378	0
Total	64	272	0	0	336	0	0	0	0	0	0	0	0	0	0	0	978	159	0	1137	1473	0
17:00	23	93	0	0	116	0	0	0	0	0	0	0	0	0	0	0	238	35	0	273	389	0
17:15	20	89	0	0	109	0	0	0	0	0	0	0	0	0	0	0	194	41	0	235	344	0
17:30	14	59	0	0	73	0	0	0	0	0	0	0	0	0	0	0	233	30	0	263	336	0
17:45	10	65	0	0	75	0	0	0	0	0	0	0	0	0	0	0	210	51	0	261	336	0
Total	67	306	0	0	373	0	0	0	0	0	0	0	0	0	0	0	875	157	0	1032	1405	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	11	27	0	0	38	0	0	0	0	0	0	0	0	0	0	0	169	32	0	201	239	0
18:45	10	29	0	0	39	0	0	0	0	0	0	0	0	0	0	0	172	31	0	203	242	0
Total	21	56	0	0	77	0	0	0	0	0	0	0	0	0	0	0	341	63	0	404	481	0
19:00	8	24	0	0	32	0	0	0	0	0	0	0	0	0	0	0	150	26	0	176	208	0
19:15	7	20	0	0	27	0	0	0	0	0	0	0	0	0	0	0	138	21	0	159	186	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	44	0	0	59	0	0	0	0	0	0	0	0	0	0	0	288	47	0	335	394	0
18:30	11	27	0	0	38	0	0	0	0	0	0	0	0	0	0	0	169	32	0	201	239	0
18:45	10	29	0	0	39	0	0	0	0	0	0	0	0	0	0	0	172	31	0	203	242	0
19:00	8	24	0	0	32	0	0	0	0	0	0	0	0	0	0	0	150	26	0	176	208	0
19:15	7	20	0	0	27	0	0	0	0	0	0	0	0	0	0	0	138	21	0	159	186	0
Total	36	100	0	0	136	0	0	0	0	0	0	0	0	0	0	0	629	110	0	739	875	0
Grand Total	403	1140	0	0	1543	0	0	0	0	0	0	0	0	0	0	0	6604	1037	0	7641	9184	0
Apprch %	26.1%	73.9%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	86.4%	13.6%	0.0%			
Total %	4.4%	12.4%	0.0%	0.0%	16.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.9%	11.3%	0.0%	83.2%	100.0%	

AM PEAK HOUR	7th Street Southbound					J Street Westbound					7th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	17	54	0	0	71	0	0	0	0	0	0	0	0	0	0	0	476	66	0	542	613
8:00	21	55	0	0	76	0	0	0	0	0	0	0	0	0	0	0	487	60	0	547	623
8:15	31	50	0	0	81	0	0	0	0	0	0	0	0	0	0	0	447	72	0	519	600
8:30	35	56	0	0	91	0	0	0	0	0	0	0	0	0	0	0	470	59	0	529	620
Total Volume	104	215	0	0	319	0	0	0	0	0	0	0	0	0	0	0	1880	257	0	2137	2456
% App Total	32.6%	67.4%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	88.0%	12.0%	0.0%		
PHF	.743	.960	.000	.000	.876	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.965	.892	.000	.977	.986

NOON PEAK	7th Street Southbound					J Street Westbound					7th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:15 to 17:15																					
Peak Hour For Entire Intersection Begins at 16:15																					
16:15	17	58	0	0	75	0	0	0	0	0	0	0	0	0	0	0	279	45	0	324	399
16:30	17	69	0	0	86	0	0	0	0	0	0	0	0	0	0	0	236	34	0	270	356
16:45	10	76	0	0	86	0	0	0	0	0	0	0	0	0	0	0	247	45	0	292	378
17:00	23	93	0	0	116	0	0	0	0	0	0	0	0	0	0	0	238	35	0	273	389
Total Volume	67	296	0	0	363	0	0	0	0	0	0	0	0	0	0	0	1000	159	0	1159	1522
% App Total	18.5%	81.5%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	86.3%	13.7%	0.0%		
PHF	.728	.796	.000	.000	.782	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.896	.883	.000	.894	.954

PM PEAK HOUR	7th Street Southbound					J Street Westbound					7th Street Northbound					J Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	11	27	0	0	38	0	0	0	0	0	0	0	0	0	0	0	169	32	0	201	239
18:45	10	29	0	0	39	0	0	0	0	0	0	0	0	0	0	0	172	31	0	203	242
19:00	8	24	0	0	32	0	0	0	0	0	0	0	0	0	0	0	150	26	0	176	208
19:15	7	20	0	0	27	0	0	0	0	0	0	0	0	0	0	0	138	21	0	159	186
Total Volume	36	100	0	0	136	0	0	0	0	0	0	0	0	0	0	0	629	110	0	739	875
% App Total	26.5%	73.5%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	85.1%	14.9%	0.0%		
PHF	.818	.862	.000	.000	.872	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.914	.859	.000	.910	.904

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-015 5th Street & C Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	5th Street Southbound					C Street Westbound					5th Street Northbound					C Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	19	18	0	0	37	33	30	7	0	70	7	14	11	0	32	3	35	17	0	55	194	0
7:15	18	23	1	0	42	19	35	10	0	64	7	6	17	0	30	1	50	14	0	65	201	0
7:30	27	54	3	0	84	25	31	11	0	67	9	17	15	0	41	1	71	32	0	104	296	0
7:45	20	56	2	0	78	20	58	12	0	90	6	18	21	0	45	3	70	20	0	93	306	0
Total	84	151	6	0	241	97	154	40	0	291	29	55	64	0	148	8	226	83	0	317	997	0
8:00	31	30	1	0	62	26	36	7	0	69	13	21	19	0	53	1	73	18	0	92	276	0
8:15	24	27	2	0	53	27	36	10	0	73	11	13	18	0	42	0	58	21	0	79	247	0
8:30	16	15	1	0	32	15	28	8	0	51	12	13	23	0	48	2	59	19	0	80	211	0
8:45	23	20	2	0	45	13	37	4	0	54	8	7	21	0	36	2	41	12	0	55	190	0
Total	94	92	6	0	192	81	137	29	0	247	44	54	81	0	179	5	231	70	0	306	924	0
16:00	17	17	5	0	39	15	64	26	0	105	28	27	23	0	78	2	66	20	0	88	310	0
16:15	17	28	2	0	47	29	79	20	0	128	21	34	39	0	94	2	74	15	1	92	361	1
16:30	24	19	5	0	48	33	70	21	0	124	35	32	43	0	110	4	78	18	1	101	383	1
16:45	12	13	3	0	28	33	88	29	0	150	16	33	35	0	84	5	75	13	0	93	355	0
Total	70	77	15	0	162	110	301	96	0	507	100	126	140	0	366	13	293	66	2	374	1409	2
17:00	17	25	2	0	44	41	90	22	0	153	33	31	27	0	91	7	86	16	0	109	397	0
17:15	11	22	4	0	37	43	96	22	0	161	29	35	32	0	96	11	70	21	0	102	396	0
17:30	8	25	1	0	34	33	92	26	0	151	30	38	40	0	108	7	63	22	0	92	385	0
17:45	7	12	5	0	24	25	77	28	0	130	13	29	32	0	74	3	75	11	0	89	317	0
Total	43	84	12	0	139	142	355	98	0	595	105	133	131	0	369	28	294	70	0	392	1495	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	13	16	2	0	31	25	64	16	0	105	19	32	33	0	84	2	60	4	0	66	286	0
18:45	12	14	3	0	29	19	66	18	0	103	19	11	12	0	42	3	66	7	0	76	250	0
Total	25	30	5	0	60	44	130	34	0	208	38	43	45	0	126	5	126	11	0	142	536	0
19:00	8	11	2	0	21	17	52	18	0	87	11	17	22	0	50	1	37	9	0	47	205	0
19:15	13	10	4	0	27	18	32	14	0	64	14	29	19	0	62	1	32	10	1	44	197	1
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	21	6	0	48	35	84	32	0	151	25	46	41	0	112	2	69	19	1	91	402	1
18:30	13	16	2	0	31	25	64	16	0	105	19	32	33	0	84	2	60	4	0	66	286	0
18:45	12	14	3	0	29	19	66	18	0	103	19	11	12	0	42	3	66	7	0	76	250	0
19:00	8	11	2	0	21	17	52	18	0	87	11	17	22	0	50	1	37	9	0	47	205	0
19:15	13	10	4	0	27	18	32	14	0	64	14	29	19	0	62	1	32	10	1	44	197	1
Total	46	51	11	0	108	79	214	66	0	359	63	89	86	0	238	7	195	30	1	233	938	1
Grand Total	383	506	61	0	950	588	1375	395	0	2358	404	546	588	0	1538	68	1434	349	4	1855	6701	4
Apprch %	40.3%	53.3%	6.4%	0.0%		24.9%	58.3%	16.8%	0.0%		26.3%	35.5%	38.2%	0.0%		3.7%	77.3%	18.8%	0.2%			
Total %	5.7%	7.6%	0.9%	0.0%	14.2%	8.8%	20.5%	5.9%	0.0%	35.2%	6.0%	8.1%	8.8%	0.0%	23.0%	1.0%	21.4%	5.2%	0.1%	27.7%	100.0%	

AM PEAK HOUR	5th Street Southbound					C Street Westbound					5th Street Northbound					C Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	27	54	3	0	84	25	31	11	0	67	9	17	15	0	41	1	71	32	0	104	296
7:45	20	56	2	0	78	20	58	12	0	90	6	18	21	0	45	3	70	20	0	93	306
8:00	31	30	1	0	62	26	36	7	0	69	13	21	19	0	53	1	73	18	0	92	276
8:15	24	27	2	0	53	27	36	10	0	73	11	13	18	0	42	0	58	21	0	79	247
Total Volume	102	167	8	0	277	98	161	40	0	299	39	69	73	0	181	5	272	91	0	368	1125
% App Total	36.8%	60.3%	2.9%	0.0%		32.8%	53.8%	13.4%	0.0%		21.5%	38.1%	40.3%	0.0%		1.4%	73.9%	24.7%	0.0%		
PHF	.823	.746	.667	.000	.824	.907	.694	.833	.000	.831	.750	.821	.869	.000	.854	.417	.932	.711	.000	.885	.919

NOON PEAK	5th Street Southbound					C Street Westbound					5th Street Northbound					C Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	12	13	3	0	28	33	88	29	0	150	16	33	35	0	84	5	75	13	0	93	355
17:00	17	25	2	0	44	41	90	22	0	153	33	31	27	0	91	7	86	16	0	109	397
17:15	11	22	4	0	37	43	96	22	0	161	29	35	32	0	96	11	70	21	0	102	396
17:30	8	25	1	0	34	33	92	26	0	151	30	38	40	0	108	7	63	22	0	92	385
Total Volume	48	85	10	0	143	150	366	99	0	615	108	137	134	0	379	30	294	72	0	396	1533
% App Total	33.6%	59.4%	7.0%	0.0%		24.4%	59.5%	16.1%	0.0%		28.5%	36.1%	35.4%	0.0%		7.6%	74.2%	18.2%	0.0%		
PHF	.706	.850	.625	.000	.813	.872	.953	.853	.000	.955	.818	.901	.838	.000	.877	.682	.855	.818	.000	.908	.965

PM PEAK HOUR	5th Street Southbound					C Street Westbound					5th Street Northbound					C Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	13	16	2	0	31	25	64	16	0	105	19	32	33	0	84	2	60	4	0	66	286
18:45	12	14	3	0	29	19	66	18	0	103	19	11	12	0	42	3	66	7	0	76	250
19:00	8	11	2	0	21	17	52	18	0	87	11	17	22	0	50	1	37	9	0	47	205
19:15	13	10	4	0	27	18	32	14	0	64	14	29	19	0	62	1	32	10	1	44	197
Total Volume	46	51	11	0	108	79	214	66	0	359	63	89	86	0	238	7	195	30	1	233	938
% App Total	42.6%	47.2%	10.2%	0.0%		22.0%	59.6%	18.4%	0.0%		26.5%	37.4%	36.1%	0.0%		3.0%	83.7%	12.9%	0.4%		
PHF	.885	.797	.688	.000	.871	.790	.811	.917	.000	.855	.829	.695	.652	.000	.708	.583	.739	.750	.250	.766	.820

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-026 3rd Street & C Street
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	3rd Street Southbound					C Street Westbound					3rd Street Northbound					C Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	3	0	2	0	5	5	109	2	0	116	3	2	14	0	19	1	104	5	0	110	250	0
18:45	2	0	0	0	2	5	91	2	0	98	2	1	6	0	9	0	83	5	0	88	197	0
19:00	2	0	0	0	2	5	81	3	1	90	4	1	5	0	10	0	70	1	0	71	173	1
19:15	1	0	0	0	1	5	67	0	0	72	0	0	4	0	4	2	57	4	0	63	140	0
Total	8	0	2	0	10	20	348	7	1	376	9	4	29	0	42	3	314	15	0	332	760	1
Grand Total	8	0	2	0	10	20	348	7	1	376	9	4	29	0	42	3	314	15	0	332	760	1
Apprch %	80.0%	0.0%	20.0%	0.0%		5.3%	92.6%	1.9%	0.3%		21.4%	9.5%	69.0%	0.0%		0.9%	94.6%	4.5%	0.0%			
Total %	1.1%	0.0%	0.3%	0.0%	1.3%	2.6%	45.8%	0.9%	0.1%	49.5%	1.2%	0.5%	3.8%	0.0%	5.5%	0.4%	41.3%	2.0%	0.0%	43.7%	100.0%	

PM PEAK HOUR	3rd Street Southbound					C Street Westbound					3rd Street Northbound					C Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	3	0	2	0	5	5	109	2	0	116	3	2	14	0	19	1	104	5	0	110	250
18:45	2	0	0	0	2	5	91	2	0	98	2	1	6	0	9	0	83	5	0	88	197
19:00	2	0	0	0	2	5	81	3	1	90	4	1	5	0	10	0	70	1	0	71	173
19:15	1	0	0	0	1	5	67	0	0	72	0	0	4	0	4	2	57	4	0	63	140
Total Volume	8	0	2	0	10	20	348	7	1	376	9	4	29	0	42	3	314	15	0	332	760
% App Total	80.0%	0.0%	20.0%	0.0%		5.3%	92.6%	1.9%	0.3%		21.4%	9.5%	69.0%	0.0%		0.9%	94.6%	4.5%	0.0%		
PHF	.667	.000	.250	.000	.500	1.000	.798	.583	.250	.810	.563	.500	.518	.000	.553	.375	.755	.750	.000	.755	.760

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-025 5th Street & Tower Bridge Gateway
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	5th Street Southbound					Tower Bridge Gateway Westbound					5th Street Northbound					Tower Bridge Gateway Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
18:30	8	31	7	0	46	21	70	21	0	112	5	44	14	0	63	13	41	11	0	65	286	0
18:45	7	31	5	0	43	9	55	9	0	73	3	23	7	0	33	2	32	4	0	38	187	0
19:00	4	24	5	0	33	9	43	10	1	63	6	32	9	0	47	7	29	3	0	39	182	1
19:15	8	24	1	0	33	12	36	8	0	56	3	37	12	0	52	7	23	5	0	35	176	0
Total	27	110	18	0	155	51	204	48	1	304	17	136	42	0	195	29	125	23	0	177	831	1
Grand Total	27	110	18	0	155	51	204	48	1	304	17	136	42	0	195	29	125	23	0	177	831	1
Apprch %	17.4%	71.0%	11.6%	0.0%		16.8%	67.1%	15.8%	0.3%		8.7%	69.7%	21.5%	0.0%		16.4%	70.6%	13.0%	0.0%			
Total %	3.2%	13.2%	2.2%	0.0%	18.7%	6.1%	24.5%	5.8%	0.1%	36.6%	2.0%	16.4%	5.1%	0.0%	23.5%	3.5%	15.0%	2.8%	0.0%	21.3%	100.0%	

PM PEAK HOUR	5th Street Southbound					Tower Bridge Gateway Westbound					5th Street Northbound					Tower Bridge Gateway Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	8	31	7	0	46	21	70	21	0	112	5	44	14	0	63	13	41	11	0	65	286
18:45	7	31	5	0	43	9	55	9	0	73	3	23	7	0	33	2	32	4	0	38	187
19:00	4	24	5	0	33	9	43	10	1	63	6	32	9	0	47	7	29	3	0	39	182
19:15	8	24	1	0	33	12	36	8	0	56	3	37	12	0	52	7	23	5	0	35	176
Total Volume	27	110	18	0	155	51	204	48	1	304	17	136	42	0	195	29	125	23	0	177	831
% App Total	17.4%	71.0%	11.6%	0.0%		16.8%	67.1%	15.8%	0.3%		8.7%	69.7%	21.5%	0.0%		16.4%	70.6%	13.0%	0.0%		
PHF	.844	.887	.643	.000	.842	.607	.729	.571	.250	.679	.708	.773	.750	.000	.774	.558	.762	.523	.000	.681	.726

ALL TRAFFIC DATA

City of Sacramento
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7845-014 Riverfront Street & Tower Bridge Gateway
Date : 10/28/2015

Unshifted Count = All Vehicles & Uturns

	Riverfront Street Southbound					Tower Bridge Gateway Westbound					Riverfront Street Northbound					Tower Bridge Gateway Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	7	4	3	0	14	3	25	34	0	62	0	6	3	0	9	41	98	0	0	139	224	0
7:15	10	3	2	0	15	3	28	35	0	66	0	11	8	0	19	48	129	1	0	178	278	0
7:30	13	3	4	0	20	2	33	37	0	72	1	6	4	0	11	58	174	0	0	232	335	0
7:45	19	7	9	0	35	1	42	42	0	85	0	10	15	0	25	61	203	0	0	264	409	0
Total	49	17	18	0	84	9	128	148	0	285	1	33	30	0	64	208	604	1	0	813	1246	0
8:00	13	2	8	0	23	2	39	22	0	63	1	15	6	0	22	66	174	0	0	240	348	0
8:15	20	0	3	0	23	4	32	37	0	73	0	9	9	0	18	68	169	1	0	238	352	0
8:30	16	2	5	0	23	2	30	34	0	66	0	4	11	0	15	48	152	4	0	204	308	0
8:45	18	4	7	0	29	0	35	23	0	58	0	4	2	0	6	50	143	1	0	194	287	0
Total	67	8	23	0	98	8	136	116	0	260	1	32	28	0	61	232	638	6	0	876	1295	0
16:00	59	41	29	0	129	14	122	14	0	150	0	1	4	0	5	10	83	1	0	94	378	0
16:15	40	28	22	0	90	10	156	21	0	187	0	2	1	0	3	5	89	1	0	95	375	0
16:30	62	40	38	0	140	17	167	15	0	199	1	1	5	0	7	4	87	0	0	91	437	0
16:45	47	21	29	0	97	11	202	14	0	227	0	0	8	0	8	7	127	0	0	134	466	0
Total	208	130	118	0	456	52	647	64	0	763	1	4	18	0	23	26	386	2	0	414	1656	0
17:00	60	51	39	0	150	25	212	21	0	258	0	1	8	0	9	6	131	2	0	139	556	0
17:15	55	18	30	0	103	25	242	19	0	286	0	1	4	0	5	9	195	3	0	207	601	0
17:30	42	27	24	0	93	14	196	15	0	225	0	3	2	0	5	9	158	1	0	168	491	0
17:45	26	17	16	0	59	12	156	8	0	176	0	1	9	0	10	12	103	0	0	115	360	0
Total	183	113	109	0	405	76	806	63	0	945	0	6	23	0	29	36	587	6	0	629	2008	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	8	3	3	0	14	3	99	4	0	106	1	1	2	0	4	4	57	0	0	61	185	0
18:45	7	1	2	0	10	3	66	9	0	78	2	1	5	0	8	2	47	0	0	49	145	0
19:00	11	2	2	0	15	5	62	9	0	76	1	2	2	0	5	2	41	2	0	45	141	0
19:15	10	5	4	0	19	1	54	4	0	59	2	0	3	0	5	1	41	0	0	42	125	0
Total	36	11	11	0	58	12	281	26	0	319	6	4	12	0	22	9	186	2	0	197	596	0
Grand Total	579	290	290	0	1159	169	2279	443	0	2891	15	83	123	0	221	520	2587	19	0	3126	7397	0
Apprch %	50.0%	25.0%	25.0%	0.0%		5.8%	78.8%	15.3%	0.0%		6.8%	37.6%	55.7%	0.0%		16.6%	82.8%	0.6%	0.0%			
Total %	7.8%	3.9%	3.9%	0.0%	15.7%	2.3%	30.8%	6.0%	0.0%	39.1%	0.2%	1.1%	1.7%	0.0%	3.0%	7.0%	35.0%	0.3%	0.0%	42.3%	100.0%	

AM PEAK HOUR	Riverfront Street Southbound					Tower Bridge Gateway Westbound					Riverfront Street Northbound					Tower Bridge Gateway Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	13	3	4	0	20	2	33	37	0	72	1	6	4	0	11	58	174	0	0	232	335
7:45	19	7	9	0	35	1	42	42	0	85	0	10	15	0	25	61	203	0	0	264	409
8:00	13	2	8	0	23	2	39	22	0	63	1	15	6	0	22	66	174	0	0	240	348
8:15	20	0	3	0	23	4	32	37	0	73	0	9	9	0	18	68	169	1	0	238	352
Total Volume	65	12	24	0	101	9	146	138	0	293	2	40	34	0	76	253	720	1	0	974	1444
% App Total	64.4%	11.9%	23.8%	0.0%		3.1%	49.8%	47.1%	0.0%		2.6%	52.6%	44.7%	0.0%		26.0%	73.9%	0.1%	0.0%		
PHF	.813	.429	.667	.000	.721	.563	.869	.821	.000	.862	.500	.667	.567	.000	.760	.930	.887	.250	.000	.922	.883

NOON PEAK	Riverfront Street Southbound					Tower Bridge Gateway Westbound					Riverfront Street Northbound					Tower Bridge Gateway Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	47	21	29	0	97	11	202	14	0	227	0	0	8	0	8	7	127	0	0	134	466
17:00	60	51	39	0	150	25	212	21	0	258	0	1	8	0	9	6	131	2	0	139	556
17:15	55	18	30	0	103	25	242	19	0	286	0	1	4	0	5	9	195	3	0	207	601
17:30	42	27	24	0	93	14	196	15	0	225	0	3	2	0	5	9	158	1	0	168	491
Total Volume	204	117	122	0	443	75	852	69	0	996	0	5	22	0	27	31	611	6	0	648	2114
% App Total	46.0%	26.4%	27.5%	0.0%		7.5%	85.5%	6.9%	0.0%		0.0%	18.5%	81.5%	0.0%		4.8%	94.3%	0.9%	0.0%		
PHF	.850	.574	.782	.000	.738	.750	.880	.821	.000	.871	.000	.417	.688	.000	.750	.861	.783	.500	.000	.783	.879

PM PEAK HOUR	Riverfront Street Southbound					Tower Bridge Gateway Westbound					Riverfront Street Northbound					Tower Bridge Gateway Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 18:30 to 19:30																					
Peak Hour For Entire Intersection Begins at 18:30																					
18:30	8	3	3	0	14	3	99	4	0	106	1	1	2	0	4	4	57	0	0	61	185
18:45	7	1	2	0	10	3	66	9	0	78	2	1	5	0	8	2	47	0	0	49	145
19:00	11	2	2	0	15	5	62	9	0	76	1	2	2	0	5	2	41	2	0	45	141
19:15	10	5	4	0	19	1	54	4	0	59	2	0	3	0	5	1	41	0	0	42	125
Total Volume	36	11	11	0	58	12	281	26	0	319	6	4	12	0	22	9	186	2	0	197	596
% App Total	62.1%	19.0%	19.0%	0.0%		3.8%	88.1%	8.2%	0.0%		27.3%	18.2%	54.5%	0.0%		4.6%	94.4%	1.0%	0.0%		
PHF	.818	.550	.688	.000	.763	.600	.710	.722	.000	.752	.750	.500	.600	.000	.688	.563	.816	.250	.000	.807	.805

October 27, 2015 Kaiser Morse Avenue Parking Lot Count Data

AM Peak Period Counts	Total In/Out			Inbound Peak Hour	Outbound Peak Hour	Overall Peak Hour
	Inbound	Outbound	Total			
7:00 AM	102	30	132			
7:15 AM	121	69	190			
7:30 AM	135	62	197			
7:45 AM	146	43	189	504	204	708
8:00 AM	171	38	209	573	212	785
8:15 AM	204	41	245	656	184	840
8:30 AM	146	59	205	667	181	848
8:45 AM	155	45	200	676	183	859
Totals	1180	387	1567			

PM Peak Period Counts	Total In/Out			Inbound Peak Hour	Outbound Peak Hour	Overall Peak Hour
	Inbound	Outbound	Total			
4:00 PM	83	201	284			
4:15 PM	72	134	206			
4:30 PM	83	181	264			
4:45 PM	58	148	206	296	664	960
5:00 PM	46	223	269	259	686	945
5:15 PM	46	133	179	233	685	918
5:30 PM	57	115	172	207	619	826
5:45 PM	52	74	126	201	545	746
6:00 PM	58	93	151	213	415	628
6:15 PM	57	80	137	224	362	586
6:30 PM	71	73	144	238	320	558
6:45 PM	38	49	87	224	295	519
7:00 PM	36	83	119	202	285	487
7:15 PM	44	61	105	189	266	455
Totals	801	1648	2449			

Kaiser Morse Avenue Trip Generation

Kaiser Morse Avenue Peak Hour of Generator		Kaiser KSF	Peak Hour Trip Generation (Per KSF)
AM: 8:00 - 9:00 AM	676 IN, 183 OUT, 859 TOTAL	477.43	1.80
PM: 4:00 - 5:00	296 IN, 664 OUT, 960 TOTAL	477.43	2.01
Pre-Event: 6:30 - 7:30	189 IN, 266 OUT, 455 TOTAL	477.43	0.95

Notes:
KSF = Thousand Square Feet

Building Name	Building Type	Number of Floors	Gross Sqaure Footage
Sacramento Hospital	HOSPITAL	2	51,259
Sacramento Hospital Tower	HOSPITAL	7	263,132
Sacramento Medical Office Addition	MOB - PCP	4	92,209
Sacramento Camellia Hospital	HOSPITAL	2	16,359
Sacramento Occupational Medicine	MOB - PCP	1	8,764
Sacramento Cottage Building	ADMIN / ABO / SS / HH	1	13,828
Sacramento Commons Building	MOB - BEHAVIORAL	2	21,534
Sacramento Ambulatory Surgery Unit	ASU	1	6,682
Sacramento Support Services Annex	ADMIN / ABO / SS / HH	1	2,945
Sacramento Trailer - Construction / Conference	TRAILER / MODULAR	1	721
Total Hospital KSF	Percent of Campus	74%	354,926
ITE Trip Generation Rate	AM 0.96	PM	1.16
Total MOB KSF	Percent of Campus	26%	122,507
ITE Trip Generation Rate	AM 3.5	PM	4.27
Blended ITE Trip Generation Rate*	AM 1.61	PM	1.96
Kaiser Morse Trip Generation Rates	AM 1.80	PM	2.01
Trip Generation Rate Difference**	AM 10%	PM	3%

Notes:
KSF = Thousand Square Feet
MOB = Medical Office Building
ITE Trip Generation Rate based on Peak Hour of Generator
* Applies 74% of Hospital/26% of Medical Office Building to get blended trip generation rate
** Kaiser Morse Trip Generation Rate increase over ITE Trip Generation Rate

Railyards MLS Kaiser EIR

PM Peak Hour to Pre-Event Peak Hour Factor Calculation for Railyards Specific Plan Trip Generation

Roadway	From	To	PM Peak Hour Volume	Pre-Event Peak Hour Volume	Pre-Event Peak Hour Factor
I St	7th St	6th St	2,262	1,153	0.51
J St	6th St	7th St	1,075	739	0.69
5th St	J St	I St	696	449	0.65
7th St	I St	J St	397	136	0.34
12th St	N B St	C St	1,776	769	0.43
16th St	C St	N B St	3,399	1,001	0.29
Total (Weighted Average)			9,605	4,247	**0.44**

APPENDIX J.1.2:

Existing Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	655	678	103.5%	27.8	3.5	C
	Through	12	12	100.0%	26.0	12.2	C
	Right Turn	333	315	94.5%	8.5	1.2	A
	Subtotal	1,000	1,004	100.4%	21.8	2.7	C
EB	Left Turn						
	Through	361	349	96.7%	23.8	3.8	C
	Right Turn	45	47	104.9%	4.1	1.4	A
	Subtotal	406	396	97.6%	21.4	3.7	C
WB	Left Turn	268	250	93.1%	6.0	1.3	A
	Through	230	224	97.2%	5.5	2.1	A
	Right Turn						
	Subtotal	498	473	95.0%	5.7	1.3	A
Total		1,904	1,874	98.4%	17.6	1.8	B

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	50	58	116.0%	21.2	6.6	C
	Through	8	9	110.0%	17.4	12.7	B
	Right Turn	854	828	96.9%	27.0	11.0	C
	Subtotal	912	894	98.1%	26.5	10.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	156	154	99.0%	22.0	7.3	C
	Through	860	890	103.5%	9.0	4.8	A
	Right Turn						
	Subtotal	1,016	1,045	102.8%	10.9	3.6	B
WB	Left Turn						
	Through	448	430	96.0%	17.2	4.3	B
	Right Turn	292	274	94.0%	2.8	0.3	A
	Subtotal	740	704	95.2%	11.5	2.4	B
Total		2,668	2,644	99.1%	16.3	4.7	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	97	98	101.4%	32.0	4.0	C
	Through	11	13	120.0%	23.6	14.6	C
	Right Turn	9	9	102.2%	14.2	10.0	B
	Subtotal	117	121	103.2%	29.6	3.1	C
SB	Left Turn	36	38	105.6%	35.3	11.1	D
	Through	3	3	93.3%	25.5	36.1	C
	Right Turn	68	77	112.9%	5.1	1.1	A
	Subtotal	107	118	109.9%	15.4	1.7	B
EB	Left Turn	125	108	86.7%	32.5	4.6	C
	Through	1,329	1,309	98.5%	15.3	3.2	B
	Right Turn	260	257	98.9%	2.5	0.2	A
	Subtotal	1,714	1,675	97.7%	14.5	2.4	B
WB	Left Turn	32	27	83.8%	35.0	7.1	C
	Through	575	534	92.8%	15.1	2.9	B
	Right Turn	10	12	124.0%	10.1	6.2	B
	Subtotal	617	573	92.8%	15.9	2.7	B
Total		2,555	2,486	97.3%	15.6	2.2	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	19	89.5%	40.3	15.3	D
	Through						
	Right Turn	8	6	80.0%	6.1	5.3	A
	Subtotal	29	25	86.9%	31.7	12.5	C
SB	Left Turn	16	20	122.5%	38.6	13.2	D
	Through						
	Right Turn	17	16	96.5%	6.5	3.2	A
	Subtotal	33	36	109.1%	24.5	9.0	C
EB	Left Turn	57	61	106.7%	39.5	5.0	D
	Through	1,223	1,212	99.1%	5.9	1.5	A
	Right Turn	94	104	110.2%	5.7	1.4	A
	Subtotal	1,374	1,376	100.1%	7.4	1.3	A
WB	Left Turn	21	21	99.0%	28.1	14.2	C
	Through	579	546	94.2%	7.9	2.4	A
	Right Turn	34	38	110.6%	6.1	2.8	A
	Subtotal	634	604	95.3%	8.6	2.2	A
Total		2,070	2,041	98.6%	8.3	1.1	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	39	95.6%	35.8	9.1	D
	Through	3	2	66.7%	22.6	29.8	C
	Right Turn	10	13	128.0%	11.9	5.0	B
	Subtotal	54	54	100.0%	30.5	8.1	C
SB	Left Turn	5	5	96.0%	43.0	19.0	D
	Through	10	13	128.0%	41.9	12.3	D
	Right Turn	7	10	142.9%	9.9	9.9	A
	Subtotal	22	28	125.5%	32.3	13.4	C
EB	Left Turn	56	52	92.1%	37.9	8.2	D
	Through	1,182	1,198	101.3%	7.8	1.8	A
	Right Turn	9	6	62.2%	8.4	8.6	A
	Subtotal	1,247	1,255	100.6%	9.1	1.7	A
WB	Left Turn	24	21	86.7%	43.0	12.1	D
	Through	586	558	95.3%	6.2	2.1	A
	Right Turn	26	30	116.9%	7.3	4.0	A
	Subtotal	636	610	95.8%	7.6	2.0	A
Total		1,959	1,946	99.3%	9.6	1.8	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	8	108.6%	28.6	25.9	C
	Through						
	Right Turn	5	7	144.0%	3.9	3.8	A
	Subtotal	12	15	123.3%	25.3	20.5	C
SB	Left Turn	16	18	112.5%	40.2	8.2	D
	Through						
	Right Turn	20	20	98.0%	6.6	3.8	A
	Subtotal	36	38	104.4%	23.6	4.7	C
EB	Left Turn	53	52	98.1%	40.9	8.5	D
	Through	1,136	1,144	100.7%	5.5	1.9	A
	Right Turn	8	11	135.0%	4.2	2.9	A
	Subtotal	1,197	1,206	100.8%	7.0	2.4	A
WB	Left Turn	9	8	88.9%	33.4	24.3	C
	Through	609	572	93.9%	7.2	1.9	A
	Right Turn	17	20	117.6%	7.1	6.2	A
	Subtotal	635	600	94.4%	7.6	1.8	A
Total		1,880	1,858	98.9%	7.6	1.3	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	35	103.5%	38.8	8.5	D
	Through	41	51	123.9%	37.4	10.5	D
	Right Turn	34	35	103.5%	21.3	8.4	C
	Subtotal	109	121	111.2%	33.9	6.5	C
SB	Left Turn	6	5	80.0%	24.5	22.9	C
	Through	9	10	115.6%	37.6	17.6	D
	Right Turn	26	26	101.5%	30.5	15.2	C
	Subtotal	41	42	101.5%	31.8	11.0	C
EB	Left Turn	137	136	99.0%	41.0	7.0	D
	Through	908	932	102.7%	26.5	5.5	C
	Right Turn	112	102	91.1%	23.6	5.7	C
	Subtotal	1,157	1,170	101.1%	27.9	4.7	C
WB	Left Turn	231	214	92.5%	41.6	6.9	D
	Through	577	551	95.5%	18.2	4.0	B
	Right Turn	15	15	98.7%	18.6	11.1	B
	Subtotal	823	779	94.7%	24.7	3.9	C
Total		2,130	2,112	99.2%	27.2	3.3	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	18	110.0%	36.2	13.0	D
	Through	32	29	90.0%	27.2	11.1	C
	Right Turn	12	8	70.0%	8.7	11.0	A
	Subtotal	60	55	91.3%	27.2	6.6	C
SB	Left Turn	9	11	124.4%	36.2	14.9	D
	Through	8	10	130.0%	36.2	15.8	D
	Right Turn	27	24	88.9%	6.7	3.7	A
	Subtotal	44	46	103.6%	22.1	4.4	C
EB	Left Turn	134	131	97.9%	38.8	5.3	D
	Through	779	795	102.1%	9.4	1.9	A
	Right Turn	35	40	115.4%	6.7	1.5	A
	Subtotal	948	967	102.0%	13.3	2.4	B
WB	Left Turn	15	14	93.3%	43.3	13.6	D
	Through	880	850	96.6%	8.9	1.7	A
	Right Turn	51	56	110.6%	8.8	3.4	A
	Subtotal	946	920	97.3%	9.5	1.6	A
Total		1,998	1,988	99.5%	12.2	1.7	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	16	72.7%	31.6	15.3	C
	Through	7	6	85.7%	31.3	20.2	C
	Right Turn	27	32	118.5%	9.0	3.9	A
	Subtotal	56	54	96.4%	19.0	7.5	B
SB	Left Turn	41	39	94.6%	31.9	7.8	C
	Through	11	8	76.4%	25.2	17.2	C
	Right Turn	20	17	86.0%	12.7	7.2	B
	Subtotal	72	64	89.4%	25.4	5.9	C
EB	Left Turn	26	20	76.9%	34.3	12.4	C
	Through	746	744	99.8%	11.9	2.1	B
	Right Turn	28	29	104.3%	7.3	3.1	A
	Subtotal	800	794	99.2%	12.3	2.2	B
WB	Left Turn	27	28	105.2%	45.5	6.3	D
	Through	904	879	97.3%	9.4	1.4	A
	Right Turn	27	24	88.9%	6.8	3.5	A
	Subtotal	958	932	97.2%	10.4	1.3	B
Total		1,886	1,844	97.8%	12.0	1.5	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	66	102.2%	70.4	13.2	E
	Through	1,083	1,092	100.8%	15.5	2.0	B
	Right Turn	3	6	186.7%	3.0	0.9	A
	Subtotal	1,151	1,164	101.1%	18.5	2.1	B
SB	Left Turn						
	Through	2,325	2,275	97.8%	41.3	10.4	D
	Right Turn	953	931	97.7%	17.1	4.7	B
	Subtotal	3,278	3,206	97.8%	34.4	8.9	C
EB	Left Turn	749	672	89.7%	101.5	30.3	F
	Through						
	Right Turn	20	18	90.0%	30.4	19.5	C
	Subtotal	769	690	89.7%	99.6	30.3	F
WB	Left Turn						
	Through	1	0	40.0%	16.4	41.4	B
	Right Turn	2	2	100.0%	1.6	2.1	A
	Subtotal	3	2	80.0%	14.6	40.7	B
Total		5,201	5,062	97.3%	39.5	8.3	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	9	6	66.7%	4.9	3.2	A
	Right Turn	3	2	80.0%	1.4	1.5	A
	Subtotal	12	8	70.0%	4.6	2.6	A
SB	Left Turn	245	230	93.7%	5.4	0.4	A
	Through	16	15	92.5%	5.3	0.4	A
	Right Turn						
	Subtotal	261	244	93.6%	5.4	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	3	93.3%	3.2	3.1	A
	Through						
	Right Turn	49	41	83.3%	2.8	0.4	A
	Subtotal	52	44	83.8%	3.0	0.4	A
Total		325	296	91.2%	5.1	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	35	80.0%	4.6	1.0	A
	Through	49	50	102.0%	5.9	0.7	A
	Right Turn						
	Subtotal	93	85	91.6%	5.3	0.6	A
SB	Left Turn						
	Through	35	30	85.7%	7.5	0.8	A
	Right Turn	8	9	110.0%	3.7	1.6	A
	Subtotal	43	39	90.2%	6.7	1.0	A
EB	Left Turn	5	4	72.0%	3.9	2.3	A
	Through						
	Right Turn	243	235	96.8%	4.5	0.4	A
	Subtotal	248	239	96.3%	4.5	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		384	363	94.5%	5.0	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	14	80.0%	26.2	17.6	C
	Through	70	80	113.7%	21.5	3.1	C
	Right Turn	10	12	120.0%	25.2	13.3	C
	Subtotal	97	105	108.5%	22.9	4.2	C
SB	Left Turn	11	9	83.6%	37.8	19.5	D
	Through	336	318	94.6%	18.2	2.6	B
	Right Turn	7	7	97.1%	17.5	13.4	B
	Subtotal	354	334	94.4%	18.7	3.0	B
EB	Left Turn	10	11	108.0%	16.5	11.8	B
	Through	76	81	106.3%	21.4	8.2	C
	Right Turn	116	124	107.2%	12.2	2.7	B
	Subtotal	202	216	106.9%	15.9	4.8	B
WB	Left Turn	149	141	94.5%	21.1	4.8	C
	Through	60	64	107.3%	21.5	10.1	C
	Right Turn	27	28	103.7%	14.1	8.5	B
	Subtotal	236	233	98.8%	20.2	4.3	C
Total		889	888	99.9%	18.8	2.5	B

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	30	30	101.3%	42.5	13.2	D
	Through	85	84	98.8%	38.4	6.3	D
	Right Turn	24	26	106.7%	42.0	17.5	D
	Subtotal	139	140	100.7%	40.0	3.8	D
SB	Left Turn	2	2	100.0%	11.8	20.5	B
	Through	19	20	105.3%	47.3	16.8	D
	Right Turn	9	13	146.7%	17.2	10.7	B
	Subtotal	30	35	117.3%	35.7	11.3	D
EB	Left Turn	3	3	106.7%	34.1	22.5	C
	Through	47	47	99.6%	36.9	7.3	D
	Right Turn	47	53	112.3%	17.6	6.1	B
	Subtotal	97	103	106.0%	27.1	6.2	C
SW	Left Turn	18	19	106.7%	11.0	9.0	B
	Through	2,260	2,235	98.9%	14.4	2.9	B
	Right Turn	144	145	100.8%	21.4	3.7	C
	Subtotal	2,422	2,399	99.1%	14.8	2.9	B
Total		2,688	2,677	99.6%	16.8	2.7	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	121	124	102.8%	7.9	1.3	A
	Through	1,122	1,119	99.7%	5.8	0.4	A
	Right Turn	6	5	80.0%	0.9	1.0	A
	Subtotal	1,249	1,248	99.9%	6.0	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	52	110.6%	17.5	2.6	B
	Through	6	6	100.0%	5.6	6.8	A
	Right Turn						
	Subtotal	53	58	109.4%	16.5	2.5	B
WB	Left Turn						
	Through	6	3	53.3%	11.0	11.6	B
	Right Turn	2	2	100.0%	1.1	1.7	A
	Subtotal	8	5	65.0%	12.1	10.6	B
Total		1,310	1,311	100.1%	6.4	0.5	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	18	110.0%	9.0	4.9	A
	Through	13	15	113.8%	10.9	6.6	B
	Right Turn						
	Subtotal	29	32	111.7%	10.4	3.8	B
SB	Left Turn						
	Through	25	22	86.4%	13.2	8.7	B
	Right Turn	33	34	101.8%	9.1	5.6	A
	Subtotal	58	55	95.2%	11.0	5.7	B
EB	Left Turn						
	Through	8	5	60.0%	25.7	26.6	C
	Right Turn						
	Subtotal	8	5	60.0%	25.7	26.6	C
WB	Left Turn	39	41	104.6%	5.8	3.3	A
	Through	2,298	2,237	97.3%	8.2	2.3	A
	Right Turn	8	8	95.0%	5.7	4.7	A
	Subtotal	2,345	2,285	97.4%	8.1	2.3	A
Total		2,440	2,378	97.4%	8.3	2.3	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	6	85.7%	14.9	7.0	B
	Through	60	56	94.0%	7.7	3.3	A
	Right Turn	42	37	87.6%	3.8	1.2	A
	Subtotal	109	99	91.0%	6.6	2.3	A
SB	Left Turn	161	152	94.2%	12.8	2.1	B
	Through	411	421	102.4%	5.9	1.1	A
	Right Turn	29	32	109.0%	5.3	2.1	A
	Subtotal	601	604	100.5%	7.6	1.4	A
EB	Left Turn	3	2	80.0%	1.9	2.8	A
	Through	3	2	80.0%	2.9	6.3	A
	Right Turn	4	4	100.0%	2.6	4.3	A
	Subtotal	10	9	88.0%	4.0	4.2	A
WB	Left Turn	55	50	91.6%	12.2	3.2	B
	Through	13	10	73.8%	6.1	5.3	A
	Right Turn	34	33	97.6%	4.5	1.0	A
	Subtotal	102	93	91.4%	9.2	2.2	A
Total		822	805	98.0%	7.6	1.2	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	33	91.1%	5.7	0.9	A
	Through	52	52	100.8%	6.1	0.6	A
	Right Turn	84	90	107.1%	4.6	0.6	A
	Subtotal	172	175	101.9%	5.2	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	17	16	91.8%	5.8	0.8	A
	Through	74	64	87.0%	6.7	0.7	A
	Right Turn						
	Subtotal	91	80	87.9%	6.6	0.7	A
WB	Left Turn						
	Through	75	64	85.3%	5.1	0.6	A
	Right Turn	13	14	107.7%	3.0	0.5	A
	Subtotal	88	78	88.6%	4.7	0.5	A
Total		351	333	94.9%	5.5	0.4	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	63	58	91.4%	17.4	2.1	B
	Right Turn						
	Subtotal	63	58	91.4%	17.4	2.1	B
SB	Left Turn						
	Through	440	444	100.9%	16.2	1.8	B
	Right Turn						
	Subtotal	440	444	100.9%	16.2	1.8	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	156	153	98.2%	4.0	1.2	A
	Through						
	Right Turn	41	36	88.8%	2.3	0.7	A
	Subtotal	197	190	96.2%	3.7	1.1	A
Total		700	691	98.7%	12.9	1.1	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	94.5%	6.5	3.6	A
	Through						
	Right Turn	508	508	100.0%	8.0	1.6	A
	Subtotal	519	518	99.9%	8.0	1.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	39	40	103.6%	8.3	3.4	A
	Right Turn						
	Subtotal	39	40	103.6%	8.3	3.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		558	559	100.1%	8.0	1.5	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	165	165	99.9%	7.0	1.0	A
	Subtotal	165	165	99.9%	7.0	1.0	A
SB	Left Turn						
	Through	38	35	92.6%	9.8	4.3	A
	Right Turn						
	Subtotal	38	35	92.6%	9.8	4.3	A
EB	Left Turn						
	Through	519	514	99.0%	9.3	1.4	A
	Right Turn	28	34	122.9%	5.5	1.8	A
	Subtotal	547	548	100.3%	9.1	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		750	748	99.8%	8.7	1.0	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	188	178	94.7%	20.0	1.0	B
	Through	415	418	100.8%	17.9	0.8	B
	Right Turn						
	Subtotal	603	596	98.9%	18.5	0.7	B
EB	Left Turn	53	46	86.0%	15.7	2.8	B
	Through	582	576	99.0%	15.1	1.9	B
	Right Turn	49	52	106.1%	5.0	2.2	A
	Subtotal	684	674	98.5%	14.4	1.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,287	1,270	98.7%	16.3	0.9	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	356	346	97.3%	8.4	0.5	A
	Right Turn	84	89	105.7%	6.2	1.1	A
	Subtotal	440	435	98.9%	8.0	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	379	356	94.0%	6.9	0.8	A
	Through	195	194	99.3%	9.4	1.0	A
	Right Turn						
	Subtotal	574	550	95.8%	7.8	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,014	985	97.2%	7.8	0.5	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	66	69	104.8%	22.1	6.0	C
	Through						
	Right Turn	387	377	97.4%	19.7	3.0	B
	Subtotal	453	446	98.5%	20.2	2.6	C
EB	Left Turn	298	284	95.4%	23.2	3.6	C
	Through	165	153	92.6%	16.0	3.6	B
	Right Turn						
	Subtotal	463	437	94.4%	20.7	3.4	C
WB	Left Turn						
	Through	100	98	98.4%	23.5	4.2	C
	Right Turn	6	9	146.7%	4.4	6.7	A
	Subtotal	106	107	101.1%	21.9	3.9	C
Total		1,022	990	96.9%	20.6	2.4	C

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	120	103.4%	8.1	1.8	A
	Through	625	626	100.2%	10.0	1.5	A
	Right Turn						
	Subtotal	741	746	100.7%	9.7	1.4	A
SB	Left Turn						
	Through						
	Right Turn	12	13	106.7%	8.4	4.7	A
	Subtotal	12	13	106.7%	8.4	4.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	904	866	95.8%	3.3	0.4	A
	Right Turn	71	74	104.8%	3.5	1.1	A
	Subtotal	975	941	96.5%	3.4	0.4	A
Total		1,728	1,700	98.4%	6.2	0.5	A

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	34	90.8%	12.1	5.9	B
	Through	106	103	97.0%	8.8	2.3	A
	Right Turn						
	Subtotal	143	136	95.4%	9.5	1.7	A
SB	Left Turn						
	Through	19	16	86.3%	12.1	7.0	B
	Right Turn	47	53	113.2%	5.3	1.0	A
	Subtotal	66	70	105.5%	7.0	2.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	63	103.0%	16.8	2.8	B
	Through	891	859	96.4%	18.7	2.0	B
	Right Turn	59	62	104.4%	18.5	2.6	B
	Subtotal	1,011	983	97.3%	18.6	1.7	B
Total		1,220	1,189	97.5%	16.9	1.5	B

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	224	228	101.8%	12.8	1.1	B
	Right Turn	240	240	100.2%	10.3	1.1	B
	Subtotal	464	468	100.9%	11.5	0.8	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	131	121	92.5%	12.4	1.1	B
	Through	771	738	95.7%	13.9	0.5	B
	Right Turn						
	Subtotal	902	859	95.2%	13.7	0.4	B
Total		1,366	1,327	97.2%	12.9	0.4	B

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	122	117	96.1%	7.4	1.4	A
	Through	330	325	98.4%	8.5	1.2	A
	Right Turn						
	Subtotal	452	442	97.8%	8.2	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	780	732	93.9%	9.5	0.6	A
	Right Turn	110	108	98.2%	8.1	1.8	A
	Subtotal	890	840	94.4%	9.4	0.6	A
Total		1,342	1,282	95.6%	9.0	0.5	A

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	55	51	93.1%	30.0	6.0	C
	Through	1,290	1,297	100.6%	29.5	2.7	C
	Right Turn	234	240	102.6%	28.0	5.6	C
	Subtotal	1,579	1,588	100.6%	29.3	3.0	C
SB	Left Turn	76	70	92.1%	64.0	14.6	E
	Through	162	144	88.9%	90.5	36.7	F
	Right Turn						
	Subtotal	238	214	89.9%	81.8	28.4	F
EB	Left Turn	50	52	103.2%	79.4	26.0	E
	Through	1,338	1,246	93.1%	89.9	27.6	F
	Right Turn	601	496	82.5%	166.1	42.1	F
	Subtotal	1,989	1,794	90.2%	110.8	31.9	F
NB	Left Turn						
	Through						
	Right Turn	48	44	91.7%	20.9	8.3	C
	Subtotal	48	44	91.7%	20.9	8.3	C
Total		3,854	3,640	94.4%	72.5	14.9	E

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	183	200	109.1%	43.7	14.6	D
	Right Turn	203	213	104.8%	38.7	17.5	D
	Subtotal	386	412	106.8%	41.2	16.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	558	548	98.1%	9.9	1.4	A
	Through	2,128	2,042	96.0%	10.6	1.6	B
	Right Turn	66	62	93.3%	11.6	3.2	B
	Subtotal	2,752	2,652	96.4%	10.5	1.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,138	3,064	97.6%	14.7	2.9	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	104	97	93.5%	19.8	2.9	B
	Through	251	250	99.4%	23.3	3.5	C
	Right Turn						
	Subtotal	355	347	97.7%	22.4	3.0	C
EB	Left Turn						
	Through	1,880	1,840	97.9%	7.3	0.4	A
	Right Turn	257	235	91.4%	7.1	1.0	A
	Subtotal	2,137	2,075	97.1%	7.3	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,492	2,422	97.2%	9.5	0.5	A

Intersection 35 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	97.5%	26.2	7.4	C
	Through	1	1	80.0%	1.9	5.9	A
	Right Turn	45	44	97.8%	5.6	1.7	A
	Subtotal	62	60	97.4%	11.2	2.8	B
SB	Left Turn	10	14	140.0%	32.6	7.4	C
	Through	5	5	104.0%	16.2	17.3	B
	Right Turn	3	3	106.7%	2.3	2.0	A
	Subtotal	18	22	124.4%	24.8	4.9	C
EB	Left Turn	1	0	40.0%	4.4	7.8	A
	Through	408	466	114.1%	11.7	1.5	B
	Right Turn	23	29	127.0%	6.4	1.8	A
	Subtotal	432	495	114.6%	11.3	1.4	B
WB	Left Turn	218	241	110.5%	20.0	2.3	B
	Through	264	314	119.1%	6.4	1.3	A
	Right Turn	5	9	184.0%	3.8	2.9	A
	Subtotal	487	564	115.9%	12.1	1.7	B
Total		999	1,142	114.4%	12.0	0.7	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **AM Peak Hour**

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	48	114.3%	31.1	6.8	C
	Through	65	79	121.2%	19.2	3.6	B
	Right Turn	81	90	111.1%	4.5	1.1	A
	Subtotal	188	217	115.3%	15.6	2.1	B
SB	Left Turn	91	113	124.0%	30.6	5.5	C
	Through	128	142	111.3%	16.7	3.7	B
	Right Turn	6	7	113.3%	4.0	3.8	A
	Subtotal	225	262	116.4%	22.4	3.6	C
EB	Left Turn	6	4	73.3%	17.0	23.4	B
	Through	260	308	118.3%	18.5	2.6	B
	Right Turn	78	93	119.0%	8.4	3.1	A
	Subtotal	344	405	117.7%	16.3	2.6	B
WB	Left Turn	88	105	119.5%	30.7	5.2	C
	Through	158	185	117.0%	15.7	3.4	B
	Right Turn	37	42	113.5%	4.1	0.7	A
	Subtotal	283	332	117.3%	19.0	3.5	B
Total		1,040	1,216	116.9%	18.2	1.9	B

Intersection 37 **3rd Street-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	35.2%	8.6	15.9	A
	Through	40	43	107.4%	29.6	7.9	C
	Right Turn	34	40	119.1%	8.6	3.0	A
	Subtotal	76	84	110.7%	20.0	5.6	B
SB	Left Turn	65	51	78.0%	28.7	4.1	C
	Through	12	14	117.3%	22.7	9.9	C
	Right Turn	24	21	89.5%	3.5	1.1	A
	Subtotal	101	86	85.4%	21.6	3.6	C
EB	Left Turn	253	246	97.4%	47.9	24.0	D
	Through	720	712	99.0%	16.1	4.8	B
	Right Turn	1	1	105.6%	3.8	8.7	A
	Subtotal	974	960	98.6%	24.4	7.6	C
WB	Left Turn	9	8	90.0%	29.3	14.3	C
	Through	169	168	99.6%	17.8	3.6	B
	Right Turn	138	132	95.9%	9.2	1.7	A
	Subtotal	316	309	97.7%	14.7	2.4	B
Total		1,467	1,439	98.1%	21.8	5.4	C

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	8	90.0%	36.0	28.3	D
	Through	192	172	89.8%	34.4	4.6	C
	Right Turn	204	201	98.5%	12.8	3.1	B
	Subtotal	405	382	94.2%	23.2	2.9	C
SB	Left Turn	46	46	99.5%	4.4	2.8	A
	Through	149	128	85.8%	20.1	6.6	C
	Right Turn	15	14	96.2%	7.4	8.6	A
	Subtotal	210	188	89.5%	15.6	4.8	B
EB	Left Turn	35	37	106.6%	80.8	14.8	F
	Through	724	722	99.7%	52.0	14.8	D
	Right Turn	6	5	88.0%	53.6	25.3	D
	Subtotal	765	765	99.9%	53.4	14.2	D
WB	Left Turn	37	37	99.9%	50.1	13.4	D
	Through	120	113	94.5%	32.9	8.5	C
	Right Turn	38	42	109.3%	5.9	1.6	A
	Subtotal	195	192	98.4%	30.8	6.9	C
Total		1,575	1,526	96.9%	38.5	8.5	D

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	169	166	98.2%	8.7	1.3	A
	Through	1,742	1,736	99.7%	7.2	0.8	A
	Right Turn	37	32	86.5%	3.4	1.0	A
	Subtotal	1,948	1,934	99.3%	7.3	0.7	A
EB	Left Turn						
	Through	51	56	110.6%	15.2	5.8	B
	Right Turn	14	11	77.1%	5.7	2.6	A
	Subtotal	65	67	103.4%	13.7	5.3	B
WB	Left Turn	17	17	98.8%	19.1	6.3	B
	Through	64	66	103.8%	16.5	4.7	B
	Right Turn						
	Subtotal	81	83	102.7%	16.9	4.1	B
Total		2,094	2,084	99.5%	7.9	0.7	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	265	285	107.6%	5.8	0.7	A
	Through	1,429	1,413	98.9%	7.2	0.8	A
	Right Turn	79	68	86.1%	5.1	1.4	A
	Subtotal	1,773	1,766	99.6%	6.9	0.7	A
EB	Left Turn						
	Through	70	70	99.4%	19.3	4.4	B
	Right Turn	11	13	120.0%	10.7	10.3	B
	Subtotal	81	83	102.2%	17.9	4.4	B
WB	Left Turn	4	4	110.0%	14.2	11.9	B
	Through	39	38	97.4%	18.2	4.2	B
	Right Turn						
	Subtotal	43	42	98.6%	18.5	4.4	B
Total		1,897	1,891	99.7%	7.6	0.7	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	75	15	125	26	125	27	0%	0%
	Through/Right	2,725	75	11	125	14	125	13	0%	0%
SB	Left Turn	325	150	17	225	36	225	48	0%	0%
	Left/Through	1,500	200	20	250	40	275	52	0%	0%
	Right Turn	325	75	20	150	72	175	98	0%	0%
WB	Left Turn	1,275	50	13	100	28	100	34	0%	0%
	Through	275	50	21	100	50	100	51	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	12	175	31	200	41	0%	0%
	Through	325	100	31	175	59	175	70	0%	0%
NB	Left/Through	325	75	23	150	84	175	117	0%	0%
	Right Turn	1,175	225	59	325	123	350	141	2%	0%
WB	Through	225	100	22	175	45	175	45	0%	0%
0										

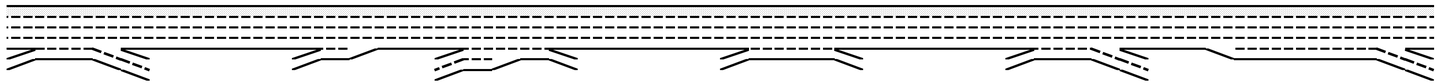
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	325	62	525	120	525	116	0%	0%
	Through	600	625	79	775	89	700	22	0%	45%
	Through/Right	600	600	30	675	20	675	15	0%	30%
NB	Right Turn	1,100	25	7	50	13	50	15	0%	0%
NE	Shared	1,025	300	28	400	63	400	54	0%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
	Right Turn	350	250	26	350	27	325	34	1%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

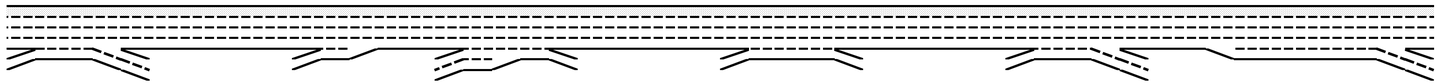
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	8,052	6,812	6,812	7,009	6,480	6,480	6,012	6,012	5,425	5,425
On Ramp Volume	339		197	383		456		373		
Off Ramp Volume	1,579			912		924		960		2,034
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	8,052	6,812	6,812	7,009	6,480	6,480	6,012	6,012	5,425	5,425
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	8,790	7,436	7,436	7,651	7,074	7,074	6,563	6,563	5,922	5,922
Flow (pcphpl)	2,198	1,859	1,859	1,913	1,769	1,769	1,641	1,641	1,481	1,184
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.94	0.79	0.79	0.81	0.75	0.75	0.70	0.70	0.63	0.50
Speed (mph)	56.0	62.0	62.0	61.3	63.1	63.1	64.2	64.2	64.9	65.0
Density (pcphpl)	39.3	30.0	30.0	31.2	28.0	28.0	25.6	25.6	22.8	18.2
LOS	E	D	D	D	D	D	C	C	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	9,226		7,693	8,052		7,625		7,003		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.79		0.82	0.69		0.65		0.60		
Flow Rate (pcphpl)	1,845		1,923	1,610		1,525		1,401		
Speed (mph)	62.2		61.1	64.4		64.8		65.0		
Density (pcphpl)	29.7		31.5	25.0		23.5		21.5		
LOS	D		D	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

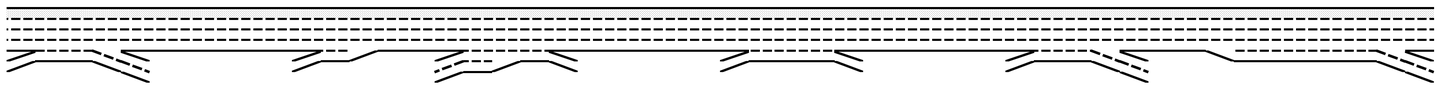
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,445			7,012		6,594		5,921		3,650
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.79			0.75		0.70		0.63		0.39
Flow Rate (pcphpl)	1,861			1,753		1,649		1,480		913
Speed (mph)	62.0			63.2		64.1		64.9		65.0
Density (pcphpl)	30.0			27.7		25.7		22.8		14.0
LOS	D			D		C		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



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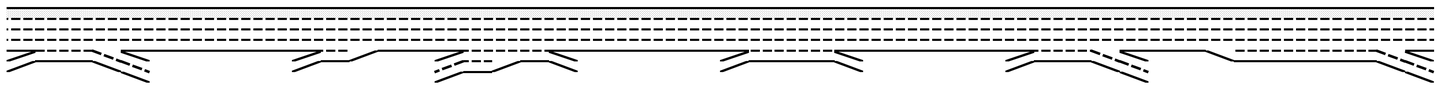
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	339		197	383		456		373		
PHF	0.79		0.78	0.97		0.84		0.86		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	436		256	401		551		440		
Flow Rate (pcphpl)	436		256	200		551		440		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.21		0.12	0.10		0.26		0.21		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

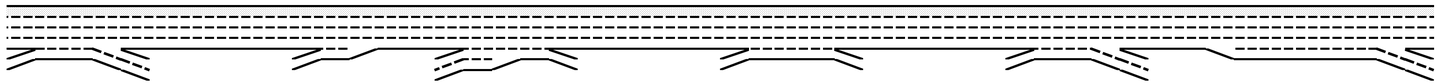
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	1,579			912		924		960		2,034
PHF	0.9			0.89		0.91		0.9		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	1,781			1,040		1,031		1,083		2,272
Flow Rate (pcphpl)	890			1,040		1,031		541		1,136
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.42			0.50		0.49		0.26		0.49
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,436							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.186							
v_{12} (pcph)			1,381							
v_3 (pcph)										
v_{34} (pcph)			6,055							
v_{12a} (pcph)			2,975							
v_{R12a} (pcph)			3,231							
Speed Index			0.38							
Area Speed			56.2							
Outer Lanes Volume			2,231							
Outer Lanes Speed			58.8							
Segment Speed			57.7							
v/c ratio			0.70							
Density			27.9							
LOS			C							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

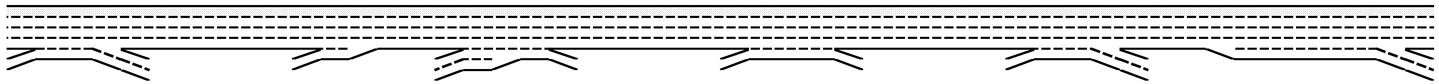
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										20.7
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

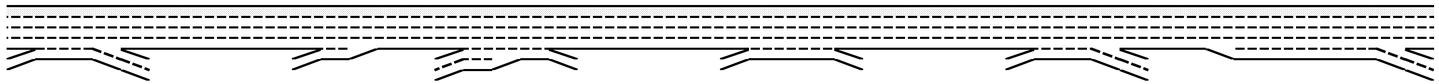
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

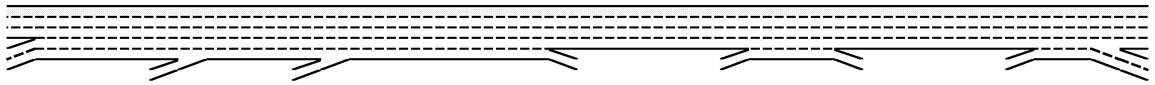
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.79	0.70		0.75		0.70		0.63	
Segment Density		30.0	27.9		28.0		25.6		22.8	20.7
Segment LOS		D	C		D		C		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

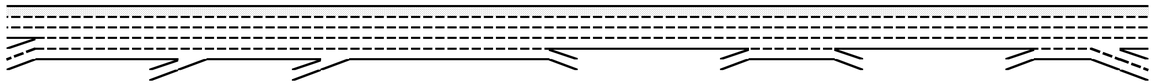
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	4,342	6,825	7,584	7,918	7,262	7,262	6,969	6,969
On Ramp Volume	2,483	759	334			707		325
Off Ramp Volume				656		1,000		1,758
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	4,342	6,825	7,584	7,918	7,262	7,262	6,969	6,969
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	4,740	7,451	8,279	8,644	7,928	7,928	7,608	7,608
Flow (pcphpl)	1,580	1,490	1,656	1,729	1,982	1,982	1,902	1,902
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.67	0.63	0.70	0.74	0.84	0.84	0.81	0.81
Speed (mph)	64.5	64.9	64.1	63.5	60.2	60.2	61.4	61.4
Density (pcphpl)	24.5	23.0	25.8	27.2	32.9	32.9	31.0	31.0
LOS	C	C	C	D	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	7,514	8,279	8,678			8,725		7,944
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.64	0.70	0.74			0.74		0.68
Flow Rate (pcphpl)	1,503	1,656	1,736			1,745		1,589
Speed (mph)	64.9	64.1	63.4			63.3		64.5
Density (pcphpl)	23.2	25.8	27.4			27.6		24.6
LOS	C	C	D			D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8

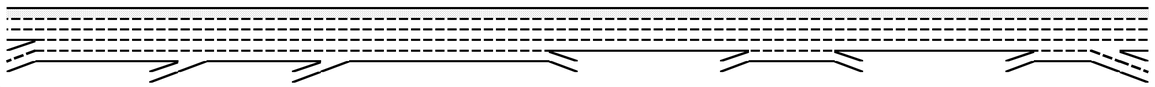


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				7,943		7,610		5,962
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.84		0.81		0.63
Flow Rate (pcphpl)				1,986		1,902		1,490
Speed (mph)				60.1		61.4		64.9
Density (pcphpl)				33.0		31.0		23.0
LOS				D		D		C

Location	1	2	3	4	5	6	7	8

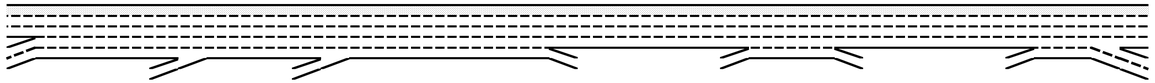


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,483	759	334			707		325
PHF	0.94	0.93	0.85			0.9		0.98
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,774	828	399			797		337
Flow Rate (pcphpl)	1,387	828	399			797		337
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.60	0.39	0.19			0.38		0.16

Location	1	2	3	4	5	6	7	8



Key

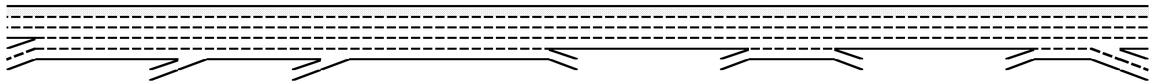
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				656		1,000		1,758
PHF				0.95		0.91		0.9
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				701		1,115		1,983
Flow Rate (pcphpl)				701		1,115		991
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.33		0.53		0.47
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		5,439	5,920					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.114	0.168					
v_{12} (pcph)		621	994					
v_3 (pcph)								
v_{34} (pcph)		4,818	4,925					
v_{12a} (pcph)		2,176	2,368					
v_{R12a} (pcph)		3,004	2,767					
Speed Index		0.39	0.36					
Area Speed		56.0	56.8					
Outer Lanes Volume		1,632	1,776					
Outer Lanes Speed		60.9	60.4					
Segment Speed		58.5	58.8					
v/c ratio		0.65	0.60					
Density		27.9	25.1					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

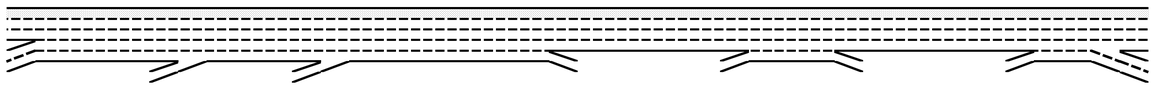
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				6,915				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.555				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				3,410				
v_3 (pcph)								
v_{34} (pcph)				3,505				
v_{12a} (pcph)				3,410				
Speed Index				0.36				
Area Speed				56.7				
Outer Lanes Volume				1,752				
Outer Lanes Speed				68.4				
Segment Speed				62.1				
v/c ratio				0.78				
Density				26.8				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

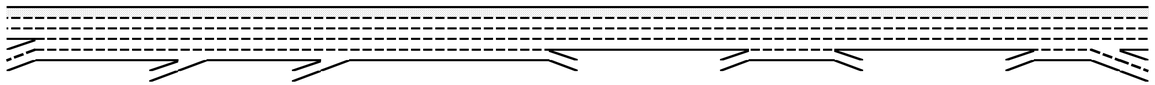
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8

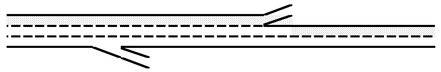


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.64	0.65	0.60	0.78	0.84		0.81	
Segment Density	23.2	27.9	25.1	26.8	32.9		31.0	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

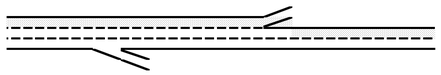


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,834	1,624	1,454
On Ramp Volume			
Off Ramp Volume	210	170	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,834	1,624	1,454
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	1,980	1,754	1,570
Flow (pcphpl)	660	585	785
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.28	0.24	0.33
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	10.2	8.4	11.2
LOS	A	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

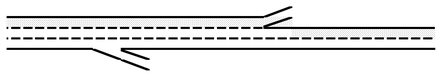


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	1,754	1,570	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.25	0.33	
Flow Rate (pcphpl)	585	785	
Speed (mph)	65.0	70.0	
Density (pcphpl)	9.0	11.2	
LOS	A	B	

Location	1	2	3

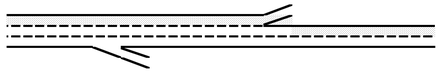


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

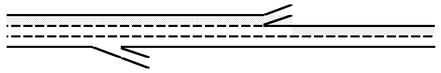


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	210	170	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	227	184	
Flow Rate (pcphpl)	227	184	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.09	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		227	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

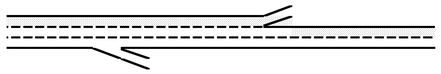


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	1,980		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.700		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.700		
v_{12} (pcph)	1,454		
v_3 (pcph)	526		
v_{34} (pcph)			
v_{12a} (pcph)	1,454		
Speed Index	0.32		
Area Speed	57.7		
Outer Lanes Volume	526		
Outer Lanes Speed	71.3		
Segment Speed	60.8		
v/c ratio	0.33		
Density	15.4		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

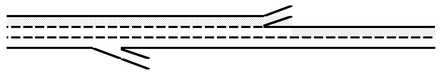


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

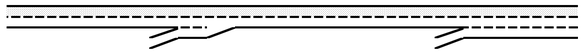
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.33	0.24	0.33
Segment Density	15.4	8.4	11.2
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4



Key

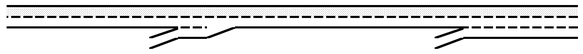
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,679	2,679	2,902	2,902
On Ramp Volume		223		376
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,679	2,679	2,902	2,902
PHF	0.88	0.88	0.88	0.88
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,090	3,090	3,347	3,347
Flow (pcphpl)	1,545	1,545	1,674	1,116
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.69	0.66	0.71	0.47
Speed (mph)	55.0	64.7	63.9	65.0
Density (pcphpl)	28.1	23.9	26.2	17.2
LOS	D	C	D	B
Operations for Segment GP Lanes				
Flow (pcph)		3,347		3,781
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.71		0.54
Flow Rate (pcphpl)		1,674		1,260
Speed (mph)		63.9		65.0
Density (pcphpl)		26.2		19.4
LOS		D		C

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

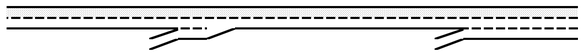


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4



Key

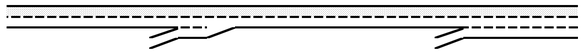
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		223		376
PHF		0.88		0.88
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		257		434
Flow Rate (pcphpl)		257		434
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.12		0.21

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4



Key

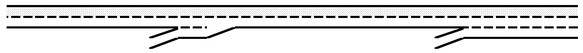
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,090		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,090		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,090		
v_{R12a} (pcph)		3,347		
Speed Index		0.36		
Area Speed		56.6		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		56.6		
v/c ratio		0.73		
Density		26.7		
LOS		C		

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

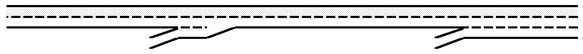


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

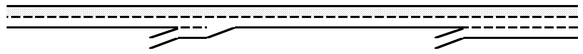


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

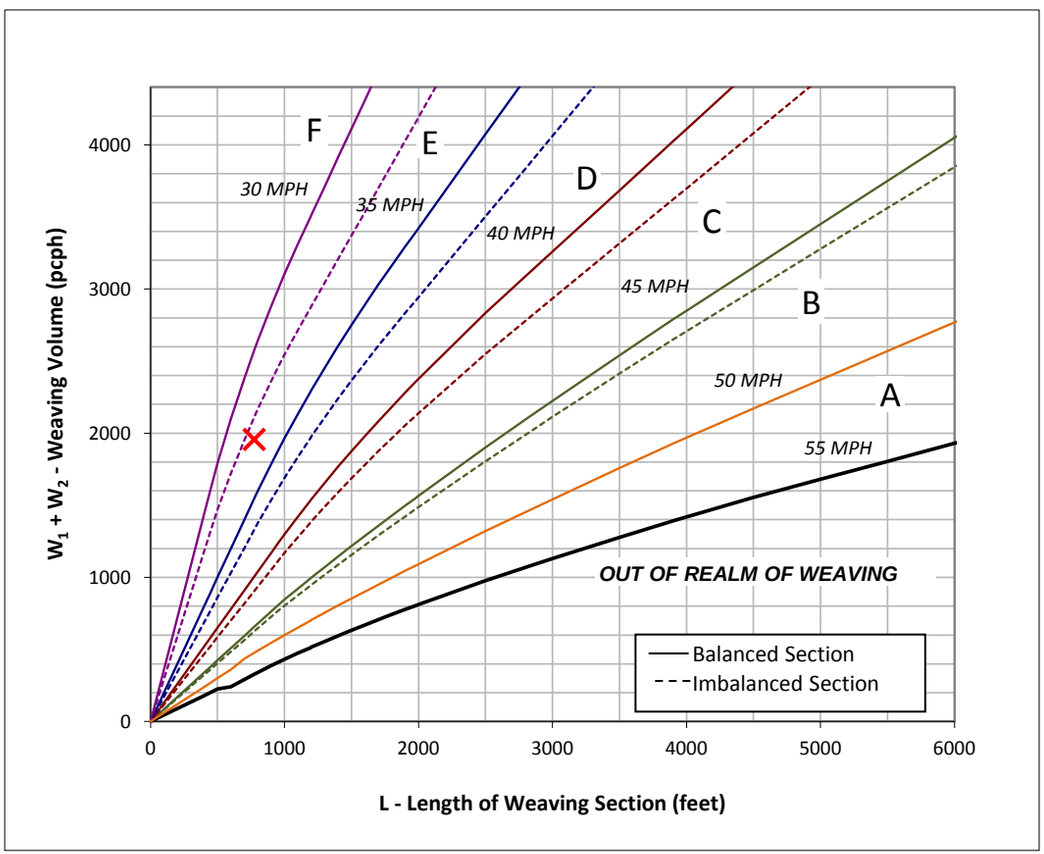
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.69	0.73	0.71	0.54
Segment Density	28.1	26.7	26.2	19.4
Segment LOS	D	C	D	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,391	Volume (vph)*	339	Volume (vph)*	1,579
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,794	Volume (pcph)	346	Volume (pcph)	1,611



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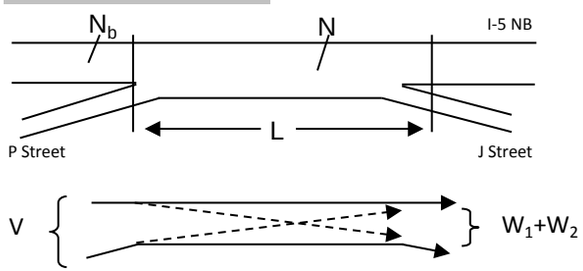


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   30 MPH and **35 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **33.0**
4. Weaving Intensity Factor (k) **3.00**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,897**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

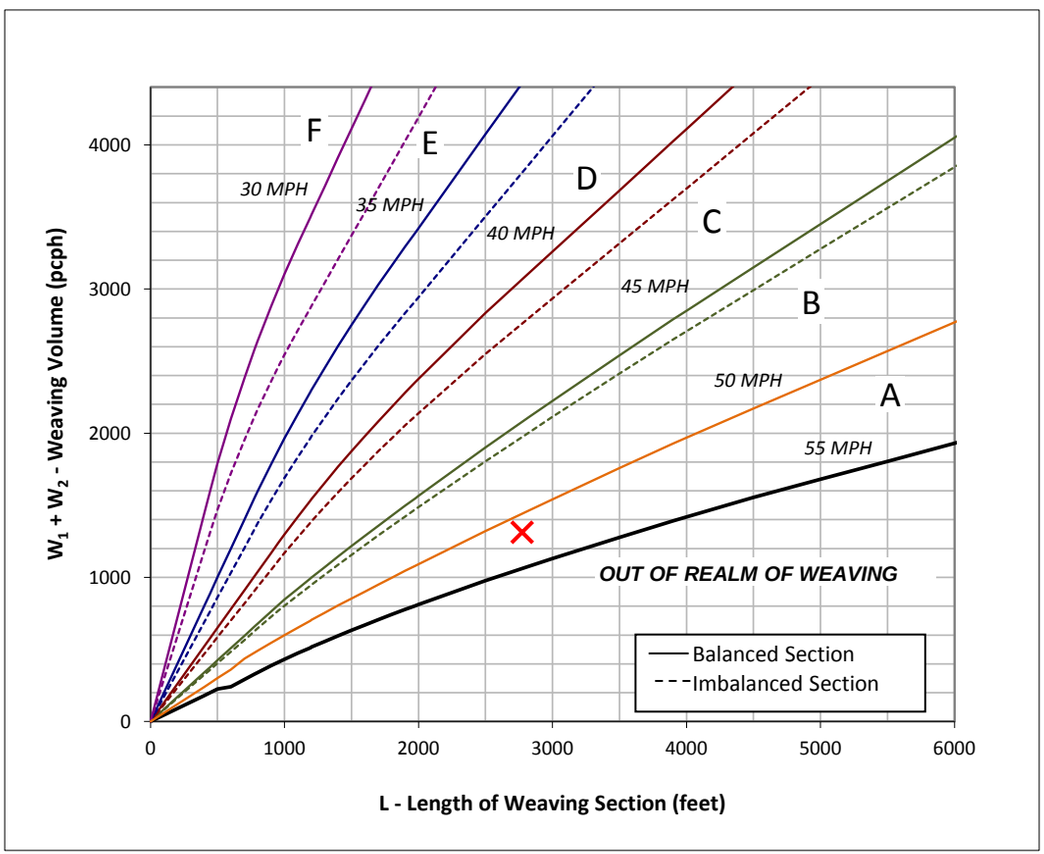
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,392	Volume (vph)*	379	Volume (vph)*	908
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,747	Volume (pcph)	387	Volume (pcph)	926



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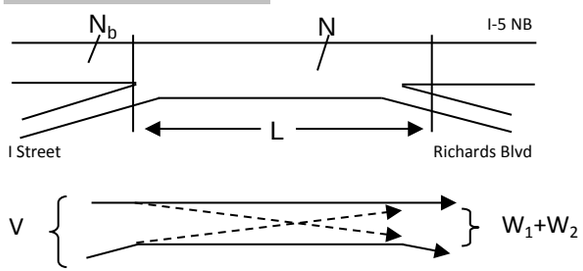


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **51.2**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,549**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

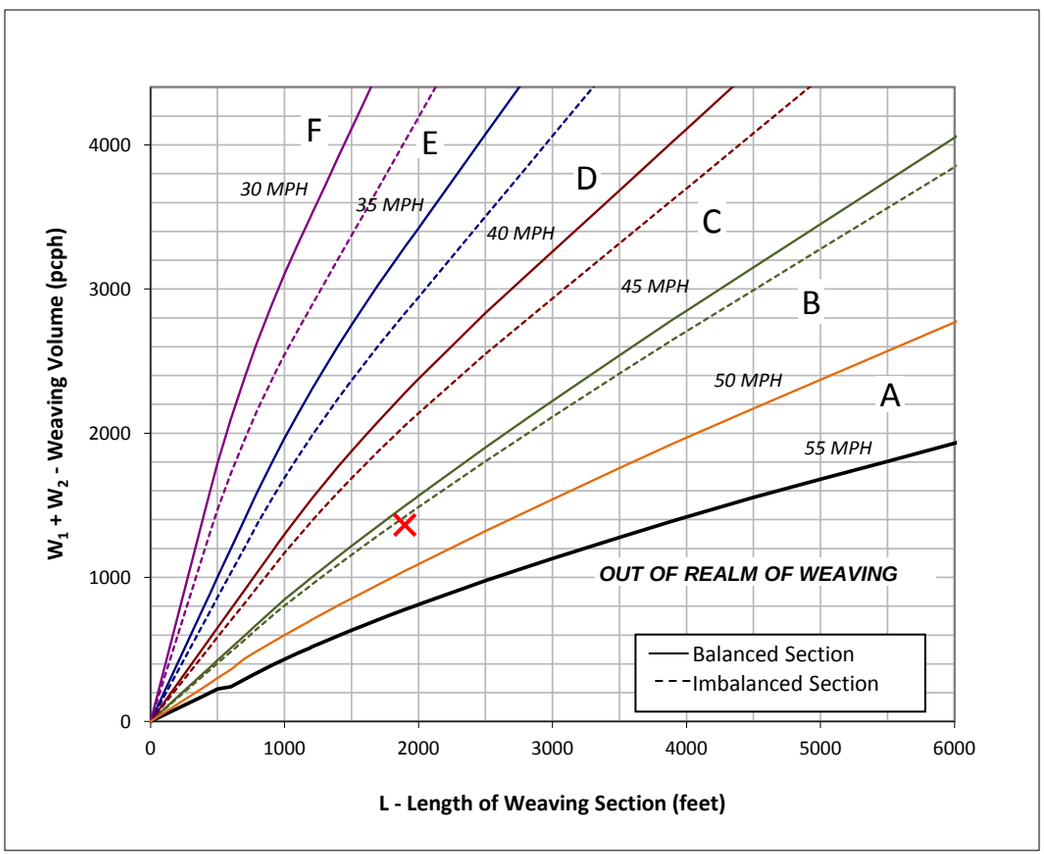
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,936	Volume (vph)*	433	Volume (vph)*	903
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,269	Volume (pcph)	442	Volume (pcph)	921



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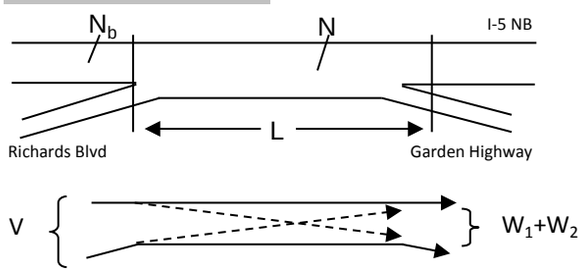


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	45.8
4. Weaving Intensity Factor (k)	1.65
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,511
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

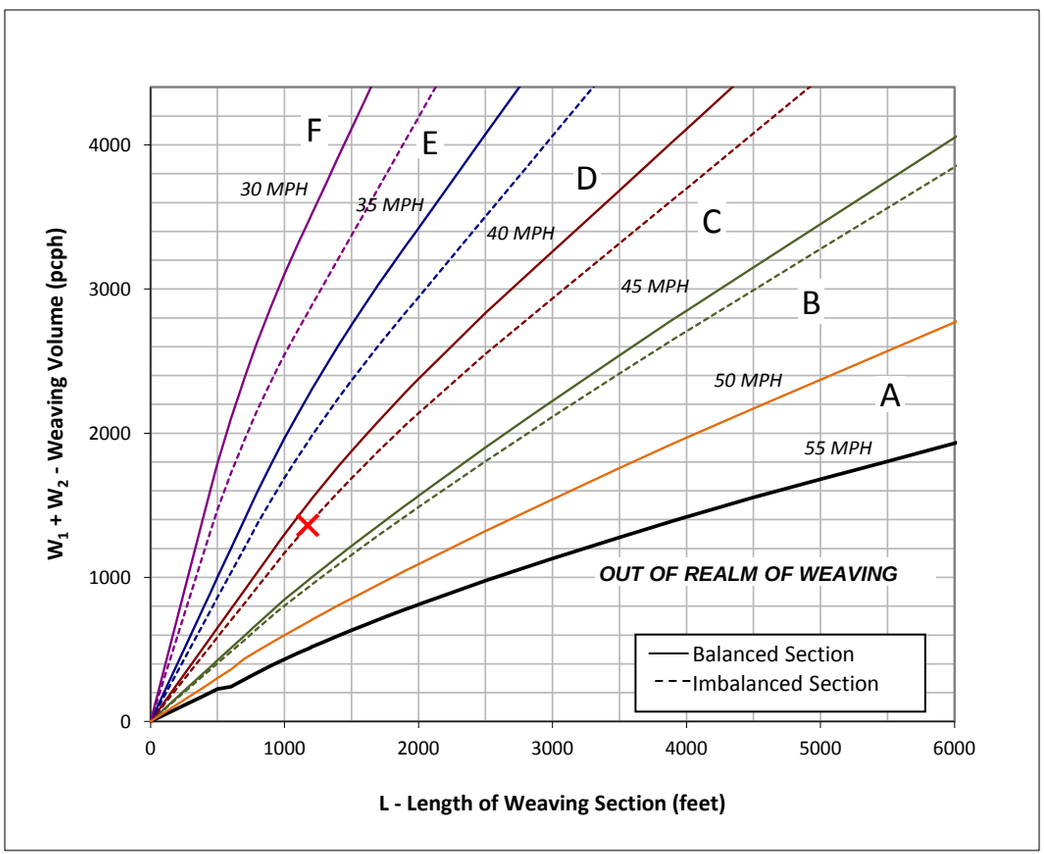
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,385	Volume (vph)*	373	Volume (vph)*	960
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,691	Volume (pcph)	380	Volume (pcph)	979



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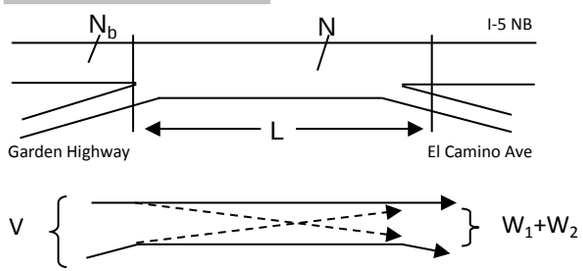


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.4
4. Weaving Intensity Factor (k)	2.40
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,445
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

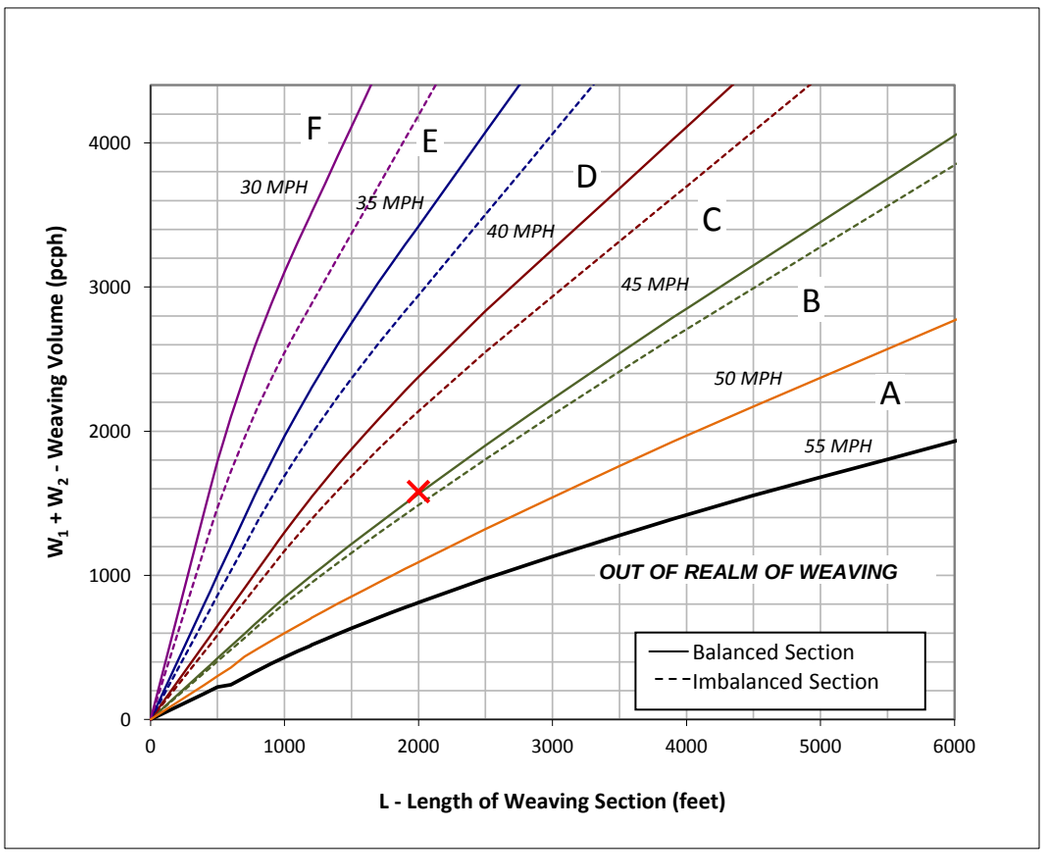
Data Input

Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,969	Volume (vph)*	629	Volume (vph)*	920
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,352	Volume (pcph)	642	Volume (pcph)	938

Project Information

Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd



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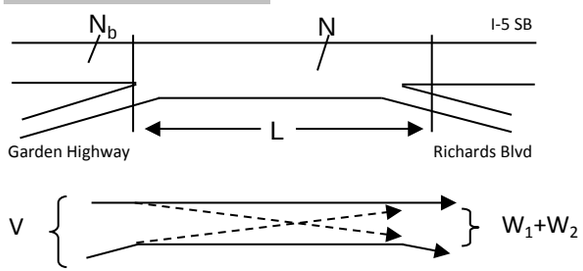


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**

   If optional exit lane, then "Y". Otherwise "N".

2. In the chart to the left, which two speed curves is the red "x" between?

   45 MPH and **50 MPH**

   If left of the 30 MPH curve, LOS is F. Select "-".

   If below the 55 MPH curve, out of the realm of weaving.

3. Interpolated Weaving Speed (S_w, mph) **43.8**
4. Weaving Intensity Factor (k) **2.13**
5. Service Volume (SV, pcph)

   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,815**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

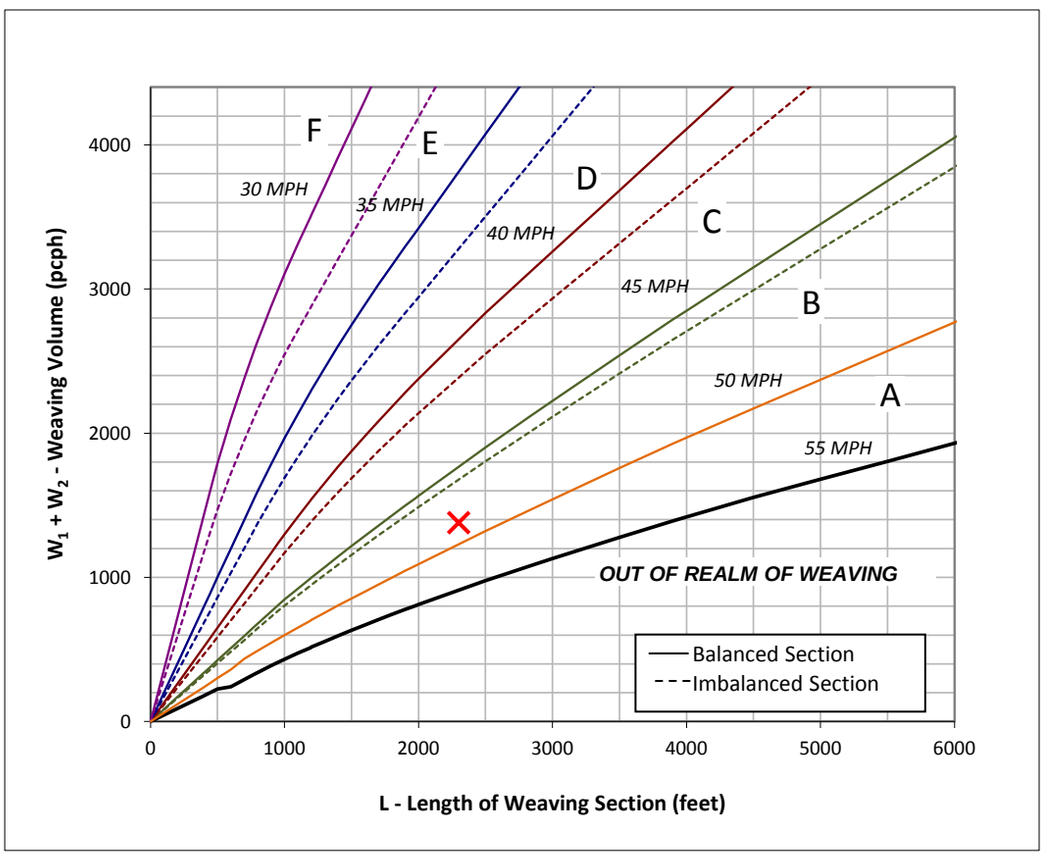
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

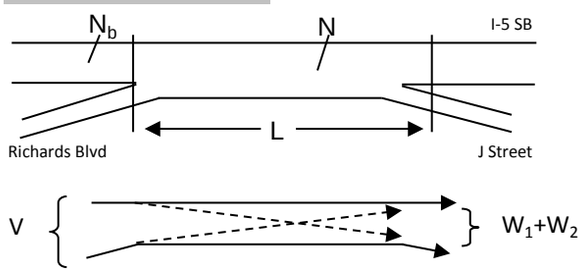
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing AM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,294	Volume (vph)*	312	Volume (vph)*	1,041
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,644	Volume (pcph)	318	Volume (pcph)	1,062



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	48.6
4. Weaving Intensity Factor (k)	1.41
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,555
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	307	308	100.5%	30.0	2.4	C
	Through	69	66	95.1%	31.7	5.7	C
	Right Turn	272	285	104.7%	11.0	1.5	B
	Subtotal	648	659	101.7%	21.9	1.5	C
EB	Left Turn						
	Through	692	678	98.0%	38.7	17.5	D
	Right Turn	53	58	109.4%	9.5	5.7	A
	Subtotal	745	736	98.8%	36.3	16.3	D
WB	Left Turn	664	625	94.2%	22.2	2.0	C
	Through	528	470	89.1%	13.4	1.2	B
	Right Turn						
	Subtotal	1,192	1,096	91.9%	18.4	1.2	B
Total		2,585	2,491	96.4%	24.8	4.7	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	59	63	107.1%	25.1	3.8	C
	Through	10	8	80.0%	19.9	16.2	B
	Right Turn	425	418	98.4%	11.0	2.1	B
	Subtotal	494	490	99.1%	13.2	1.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	420	394	93.8%	56.2	4.2	E
	Through	579	586	101.2%	4.3	1.2	A
	Right Turn						
	Subtotal	999	980	98.1%	25.2	2.4	C
WB	Left Turn						
	Through	1,133	1,066	94.1%	26.2	3.8	C
	Right Turn	790	652	82.5%	4.9	0.5	A
	Subtotal	1,923	1,718	89.4%	18.1	2.5	B
Total		3,416	3,188	93.3%	19.5	1.6	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	269	276	102.6%	39.3	8.8	D
	Through	4	7	170.0%	30.0	24.5	C
	Right Turn	4	4	110.0%	4.9	4.6	A
	Subtotal	277	287	103.7%	38.6	8.3	D
SB	Left Turn	34	35	102.4%	38.0	11.0	D
	Through	8	8	95.0%	32.1	25.5	C
	Right Turn	167	174	104.0%	27.3	15.1	C
	Subtotal	209	216	103.3%	29.7	12.5	C
EB	Left Turn	79	77	97.7%	27.2	2.4	C
	Through	835	799	95.7%	17.2	2.9	B
	Right Turn	90	95	105.3%	2.4	0.3	A
	Subtotal	1,004	971	96.7%	16.5	2.3	B
WB	Left Turn	18	16	88.9%	45.4	17.6	D
	Through	1,487	1,241	83.4%	55.4	5.8	E
	Right Turn	9	9	97.8%	46.8	29.0	D
	Subtotal	1,514	1,266	83.6%	55.3	5.7	E
Total		3,004	2,740	91.2%	37.7	2.7	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	92	103.4%	43.4	11.9	D
	Through						
	Right Turn	15	20	136.0%	6.5	3.5	A
	Subtotal	104	112	108.1%	36.9	11.2	D
SB	Left Turn	38	46	121.1%	29.7	5.5	C
	Through						
	Right Turn	17	18	103.5%	27.9	14.7	C
	Subtotal	55	64	115.6%	29.6	7.1	C
EB	Left Turn	13	7	52.3%	34.7	24.0	C
	Through	848	843	99.4%	4.5	1.6	A
	Right Turn	12	12	96.7%	3.2	1.8	A
	Subtotal	873	861	98.6%	4.9	1.6	A
WB	Left Turn	2	2	100.0%	8.9	19.0	A
	Through	1,408	1,201	85.3%	50.3	6.4	D
	Right Turn	11	6	58.2%	48.2	33.4	D
	Subtotal	1,421	1,210	85.1%	50.3	6.5	D
Total		2,453	2,247	91.6%	31.7	3.5	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	24	92.3%	38.7	8.3	D
	Through	5	10	208.0%	30.4	17.1	C
	Right Turn	23	22	97.4%	7.9	2.0	A
	Subtotal	54	57	105.2%	25.9	5.1	C
SB	Left Turn	24	28	118.3%	34.7	9.0	C
	Through	19	20	105.3%	33.6	11.2	C
	Right Turn	49	56	113.5%	24.5	7.6	C
	Subtotal	92	104	113.0%	29.5	5.9	C
EB	Left Turn	8	5	65.0%	27.8	17.1	C
	Through	877	884	100.8%	7.5	2.1	A
	Right Turn	16	20	125.0%	10.8	6.5	B
	Subtotal	901	909	100.9%	7.7	2.2	A
WB	Left Turn	11	7	61.8%	57.2	33.0	E
	Through	1,346	1,162	86.3%	55.7	12.4	E
	Right Turn	10	5	52.0%	32.4	30.2	C
	Subtotal	1,367	1,174	85.9%	55.7	12.4	E
Total		2,414	2,244	93.0%	34.3	7.2	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	50.0%	18.9	35.5	B
	Through						
	Right Turn	8	6	75.0%	3.7	4.2	A
	Subtotal	12	8	66.7%	16.8	26.0	B
SB	Left Turn	8	4	55.0%	18.5	14.5	B
	Through						
	Right Turn	70	72	103.4%	18.3	5.0	B
	Subtotal	78	77	98.5%	18.5	5.1	B
EB	Left Turn	14	17	122.9%	41.8	12.4	D
	Through	905	896	99.0%	5.3	1.8	A
	Right Turn	5	6	112.0%	4.1	7.2	A
	Subtotal	924	918	99.4%	5.9	1.8	A
WB	Left Turn	1	0	40.0%	6.7	14.2	A
	Through	1,293	1,200	92.8%	29.8	15.8	C
	Right Turn	5	4	72.0%	17.7	29.0	B
	Subtotal	1,299	1,204	92.7%	29.8	15.8	C
Total		2,313	2,208	95.4%	19.4	9.4	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	117	130	110.8%	33.5	6.7	C
	Through	8	12	155.0%	36.1	17.8	D
	Right Turn	134	124	92.8%	14.4	4.3	B
	Subtotal	259	266	102.9%	24.4	3.5	C
SB	Left Turn	53	46	86.0%	33.6	6.1	C
	Through	67	66	98.5%	33.5	7.7	C
	Right Turn	92	98	107.0%	33.4	6.2	C
	Subtotal	212	210	99.1%	33.9	4.4	C
EB	Left Turn	11	15	138.2%	40.9	19.8	D
	Through	827	812	98.2%	25.4	3.1	C
	Right Turn	83	74	89.2%	24.2	8.2	C
	Subtotal	921	902	97.9%	25.6	3.4	C
WB	Left Turn	114	113	98.9%	48.7	8.3	D
	Through	1,092	1,108	101.5%	26.0	5.4	C
	Right Turn	11	12	109.1%	23.9	14.8	C
	Subtotal	1,217	1,233	101.3%	28.1	5.4	C
Total		2,609	2,611	100.1%	27.3	3.0	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	30	95.5%	37.8	13.0	D
	Through	5	6	112.0%	35.3	21.2	D
	Right Turn	19	18	96.8%	8.0	3.8	A
	Subtotal	55	54	97.5%	27.2	7.6	C
SB	Left Turn	88	86	97.7%	27.7	3.7	C
	Through	63	62	98.4%	30.0	7.1	C
	Right Turn	134	138	103.0%	10.9	1.7	B
	Subtotal	285	286	100.4%	20.0	2.0	C
EB	Left Turn	35	31	88.0%	37.5	11.4	D
	Through	926	888	95.9%	8.7	1.4	A
	Right Turn	53	54	101.9%	6.6	1.5	A
	Subtotal	1,014	972	95.9%	9.5	1.6	A
WB	Left Turn	7	8	120.0%	32.1	25.1	C
	Through	973	1,004	103.2%	8.5	1.1	A
	Right Turn	18	20	111.1%	8.6	4.5	A
	Subtotal	998	1,033	103.5%	8.9	1.2	A
Total		2,352	2,345	99.7%	10.9	1.0	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	26	114.8%	30.9	10.0	C
	Through	5	5	96.0%	24.6	21.2	C
	Right Turn	30	30	101.3%	8.0	5.0	A
	Subtotal	58	62	106.2%	19.0	5.4	B
SB	Left Turn	30	28	94.7%	32.4	11.8	C
	Through	9	10	106.7%	21.9	13.3	C
	Right Turn	26	25	95.4%	15.8	11.1	B
	Subtotal	65	63	96.6%	24.3	8.6	C
EB	Left Turn	13	11	86.2%	38.2	23.7	D
	Through	993	981	98.8%	10.3	1.9	B
	Right Turn	27	21	77.0%	6.4	1.9	A
	Subtotal	1,033	1,013	98.0%	10.6	1.8	B
WB	Left Turn	18	14	75.6%	27.4	16.6	C
	Through	949	972	102.5%	7.8	1.0	A
	Right Turn	6	6	100.0%	5.6	3.9	A
	Subtotal	973	992	102.0%	8.1	1.0	A
Total		2,129	2,129	100.0%	10.1	1.0	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	61	57	93.8%	112.4	18.5	F
	Through	3,852	3,380	87.8%	77.1	18.3	E
	Right Turn	8	6	80.0%	60.0	40.0	E
	Subtotal	3,921	3,444	87.8%	77.7	18.1	E
SB	Left Turn						
	Through	1,635	1,660	101.5%	20.6	2.9	C
	Right Turn	897	926	103.2%	6.1	0.8	A
	Subtotal	2,532	2,585	102.1%	15.4	1.9	B
EB	Left Turn	778	740	95.1%	42.9	7.8	D
	Through						
	Right Turn	117	120	102.9%	8.0	1.4	A
	Subtotal	895	860	96.1%	38.1	7.1	D
WB	Left Turn						
	Through	4	2	60.0%	57.5	74.5	E
	Right Turn	8	8	100.0%	33.5	23.3	C
	Subtotal	12	10	86.7%	41.4	30.9	D
Total		7,360	6,900	93.8%	49.3	9.4	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	9	10	111.1%	5.4	1.7	A
	Right Turn	2	2	100.0%	1.7	2.5	A
	Subtotal	11	12	109.1%	5.1	1.2	A
SB	Left Turn	70	64	91.4%	5.0	0.7	A
	Through	3	4	120.0%	4.8	0.7	A
	Right Turn						
	Subtotal	73	68	92.6%	5.0	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	40.0%	1.2	3.9	A
	Through						
	Right Turn	297	304	102.2%	5.1	0.3	A
	Subtotal	298	304	102.0%	5.1	0.3	A
Total		382	384	100.4%	5.1	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	292	100.7%	6.6	0.5	A
	Through	46	47	102.6%	7.7	1.1	A
	Right Turn						
	Subtotal	336	339	101.0%	6.8	0.5	A
SB	Left Turn						
	Through	38	36	93.7%	7.0	0.8	A
	Right Turn	8	10	125.0%	4.4	0.8	A
	Subtotal	46	46	99.1%	6.4	0.8	A
EB	Left Turn	8	8	100.0%	5.0	1.7	A
	Through						
	Right Turn	64	62	97.5%	3.1	0.7	A
	Subtotal	72	70	97.8%	3.3	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		454	455	100.3%	6.2	0.4	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	128	132	103.1%	32.9	8.7	C
	Through	237	248	104.8%	36.0	12.1	D
	Right Turn	192	204	106.0%	35.5	13.4	D
	Subtotal	557	584	104.8%	35.3	11.7	D
SB	Left Turn	26	22	83.1%	25.3	10.5	C
	Through	226	219	97.0%	27.6	5.8	C
	Right Turn	14	13	94.3%	20.1	10.8	C
	Subtotal	266	254	95.5%	27.2	5.8	C
EB	Left Turn	1	1	80.0%	6.1	16.5	A
	Through	82	73	89.3%	33.1	5.2	C
	Right Turn	37	36	98.4%	12.2	6.4	B
	Subtotal	120	110	92.0%	25.4	4.5	C
WB	Left Turn	57	57	100.4%	37.1	10.5	D
	Through	77	77	100.3%	36.0	8.1	D
	Right Turn	19	23	120.0%	28.5	11.1	C
	Subtotal	153	157	102.7%	35.5	7.9	D
Total		1,096	1,106	100.9%	32.5	6.8	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	53	57	107.2%	42.4	6.7	D
	Through	91	89	98.0%	32.3	5.2	C
	Right Turn	14	13	94.3%	27.1	11.7	C
	Subtotal	158	159	100.8%	35.5	4.5	D
SB	Left Turn	5	4	80.0%	22.3	27.4	C
	Through	29	27	92.4%	61.7	13.8	E
	Right Turn	7	4	57.1%	18.4	14.7	B
	Subtotal	41	35	84.9%	53.9	9.3	D
EB	Left Turn	3	2	53.3%	51.7	15.1	D
	Through	215	225	104.7%	32.9	5.5	C
	Right Turn	82	73	88.8%	23.4	7.1	C
	Subtotal	300	300	99.9%	30.7	5.7	C
SW	Left Turn	36	33	92.2%	4.2	4.1	A
	Through	1,612	1,636	101.5%	7.9	1.3	A
	Right Turn	57	61	106.7%	10.5	3.0	B
	Subtotal	1,705	1,730	101.5%	7.9	1.3	A
Total		2,204	2,224	100.9%	13.7	1.3	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	48	49	101.7%	12.0	2.4	B
	Through	3,349	3,346	99.9%	10.1	0.6	B
	Right Turn	2	2	120.0%	3.9	6.0	A
	Subtotal	3,399	3,397	99.9%	10.1	0.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	259	260	100.2%	38.6	3.3	D
	Through	3	1	40.0%	9.0	15.1	A
	Right Turn						
	Subtotal	262	261	99.5%	38.6	3.2	D
WB	Left Turn						
	Through	10	9	88.0%	26.0	16.8	C
	Right Turn	3	2	80.0%	12.1	14.7	B
	Subtotal	13	11	86.2%	20.0	15.0	B
Total		3,674	3,669	99.9%	12.2	0.5	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	32	104.5%	14.0	4.5	B
	Through	13	14	107.7%	12.7	6.8	B
	Right Turn						
	Subtotal	44	46	105.5%	13.6	3.1	B
SB	Left Turn						
	Through	158	150	94.7%	15.7	2.3	B
	Right Turn	65	66	101.5%	9.7	2.6	A
	Subtotal	223	216	96.7%	13.9	2.1	B
EB	Left Turn						
	Through	8	8	105.0%	17.4	15.1	B
	Right Turn						
	Subtotal	8	8	105.0%	17.4	15.1	B
WB	Left Turn	79	76	96.2%	4.9	1.8	A
	Through	1,666	1,677	100.6%	7.3	1.7	A
	Right Turn	7	8	114.3%	2.3	1.8	A
	Subtotal	1,752	1,761	100.5%	7.2	1.7	A
Total		2,027	2,031	100.2%	8.1	1.4	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	397	399	100.6%	8.0	1.4	A
	Right Turn	14	24	168.6%	5.8	3.1	A
	Subtotal	411	423	102.9%	7.9	1.3	A
SB	Left Turn	39	39	99.5%	13.4	2.2	B
	Through	280	269	96.1%	4.8	1.2	A
	Right Turn	1	2	160.0%	0.8	1.7	A
	Subtotal	320	310	96.8%	5.9	1.1	A
EB	Left Turn	40	36	90.0%	9.4	3.6	A
	Through	9	13	146.7%	12.0	8.8	B
	Right Turn	11	9	83.6%	6.0	4.1	A
	Subtotal	60	58	97.3%	9.0	2.6	A
WB	Left Turn	83	82	98.8%	11.7	2.1	B
	Through	3	3	93.3%	8.5	11.6	A
	Right Turn	120	108	89.7%	5.5	0.9	A
	Subtotal	206	192	93.4%	8.2	1.1	A
Total		997	983	98.6%	7.4	0.8	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	88	100.5%	6.1	0.5	A
	Through	210	222	105.7%	6.2	0.4	A
	Right Turn	71	70	99.2%	4.5	0.8	A
	Subtotal	369	381	103.2%	5.9	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	15	18	120.0%	5.3	0.6	A
	Through	115	122	106.1%	6.4	0.6	A
	Right Turn						
	Subtotal	130	140	107.7%	6.3	0.6	A
WB	Left Turn						
	Through	103	91	88.5%	5.9	0.5	A
	Right Turn	6	9	146.7%	3.0	1.5	A
	Subtotal	109	100	91.7%	5.6	0.5	A
Total		608	621	102.1%	5.9	0.3	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	89	100	112.8%	3.3	1.9	A
	Right Turn						
	Subtotal	89	100	112.8%	3.3	1.9	A
SB	Left Turn						
	Through	421	411	97.6%	9.8	1.4	A
	Right Turn						
	Subtotal	421	411	97.6%	9.8	1.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	202	202	99.8%	9.6	1.1	A
	Through						
	Right Turn	169	165	97.8%	4.2	0.9	A
	Subtotal	371	367	98.9%	7.2	0.9	A
Total		881	878	99.7%	8.0	0.6	A

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	14	155.6%	9.5	7.3	A
	Through						
	Right Turn	262	255	97.3%	7.5	2.5	A
	Subtotal	271	269	99.2%	7.6	2.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	35	34	98.3%	7.0	3.2	A
	Right Turn						
	Subtotal	35	34	98.3%	7.0	3.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		306	303	99.1%	7.6	2.3	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	131	142	108.4%	6.5	1.1	A
	Subtotal	131	142	108.4%	6.5	1.1	A
SB	Left Turn						
	Through	77	79	102.9%	9.4	1.8	A
	Right Turn						
	Subtotal	77	79	102.9%	9.4	1.8	A
EB	Left Turn						
	Through	277	270	97.3%	9.0	1.4	A
	Right Turn	20	18	92.0%	2.7	1.9	A
	Subtotal	297	288	97.0%	8.6	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		505	509	100.8%	8.2	0.6	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	138	133	96.5%	11.8	1.6	B
	Through	606	598	98.6%	10.5	1.7	B
	Right Turn						
	Subtotal	744	731	98.2%	10.7	1.6	B
EB	Left Turn	105	110	104.8%	12.8	1.4	B
	Through	282	284	100.9%	11.4	1.3	B
	Right Turn	21	20	95.2%	9.1	5.9	A
	Subtotal	408	414	101.6%	11.6	1.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,152	1,145	99.4%	11.1	1.0	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	441	448	101.5%	6.7	1.0	A
	Right Turn	67	70	103.9%	3.5	1.3	A
	Subtotal	508	517	101.8%	6.3	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	185	182	98.2%	7.0	0.9	A
	Through	281	277	98.6%	7.9	0.9	A
	Right Turn						
	Subtotal	466	459	98.5%	7.5	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		974	976	100.2%	6.9	0.6	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	102	94	92.5%	98.0	39.4	F
	Through						
	Right Turn	482	431	89.4%	91.2	35.6	F
	Subtotal	584	525	89.9%	92.4	36.0	F
EB	Left Turn	522	504	96.6%	69.2	21.8	E
	Through	200	198	98.8%	54.5	21.0	D
	Right Turn						
	Subtotal	722	702	97.2%	65.1	21.9	E
WB	Left Turn						
	Through	184	173	93.9%	39.7	4.6	D
	Right Turn	23	20	85.2%	11.3	6.4	B
	Subtotal	207	192	92.9%	36.7	4.6	D
Total		1,513	1,419	93.8%	71.5	17.1	E

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	317	303	95.6%	62.3	23.8	E
	Through	379	379	99.9%	34.0	2.6	C
	Right Turn						
	Subtotal	696	682	98.0%	47.0	11.6	D
SB	Left Turn						
	Through						
	Right Turn	35	40	113.1%	58.2	19.6	E
	Subtotal	35	40	113.1%	58.2	19.6	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,406	2,390	99.3%	5.8	0.7	A
	Right Turn	46	44	96.5%	4.9	1.2	A
	Subtotal	2,452	2,434	99.3%	5.8	0.7	A
Total		3,183	3,156	99.1%	15.4	2.8	B

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	156	153	98.2%	55.3	12.0	E
	Through	95	104	109.9%	47.7	7.7	D
	Right Turn						
	Subtotal	251	258	102.6%	52.2	7.5	D
SB	Left Turn						
	Through	9	8	93.3%	38.6	21.1	D
	Right Turn	88	90	102.7%	14.4	2.9	B
	Subtotal	97	99	101.9%	16.8	3.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	20	113.3%	18.1	3.1	B
	Through	2,208	2,188	99.1%	18.8	0.5	B
	Right Turn	36	39	108.9%	17.4	3.8	B
	Subtotal	2,262	2,248	99.4%	18.8	0.5	B
Total		2,610	2,604	99.8%	22.0	1.1	C

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	285	284	99.5%	27.2	1.6	C
	Right Turn	342	333	97.4%	19.6	2.1	B
	Subtotal	627	617	98.4%	23.1	1.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	112	100	89.6%	7.7	1.1	A
	Through	1,920	1,913	99.6%	8.9	0.7	A
	Right Turn						
	Subtotal	2,032	2,014	99.1%	8.9	0.7	A
Total		2,659	2,630	98.9%	12.2	0.7	B

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	392	385	98.3%	36.4	4.4	D
	Through	479	488	101.8%	29.1	2.8	C
	Right Turn						
	Subtotal	871	873	100.2%	32.3	2.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,640	1,630	99.4%	12.0	1.2	B
	Right Turn	29	32	109.0%	9.5	3.6	A
	Subtotal	1,669	1,662	99.6%	11.9	1.2	B
Total		2,540	2,534	99.8%	19.0	1.5	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	25	27	107.2%	27.1	12.4	C
	Through	190	198	104.2%	28.5	5.1	C
	Right Turn	27	27	100.7%	11.6	9.5	B
	Subtotal	242	252	104.1%	26.6	4.9	C
SB	Left Turn	223	223	100.1%	25.6	3.6	C
	Through	387	386	99.8%	29.6	3.6	C
	Right Turn						
	Subtotal	610	610	99.9%	28.1	3.4	C
EB	Left Turn	35	31	88.0%	26.4	8.5	C
	Through	699	670	95.9%	24.6	2.5	C
	Right Turn	320	326	101.8%	28.5	4.9	C
	Subtotal	1,054	1,026	97.4%	25.9	3.1	C
NB	Left Turn						
	Through						
	Right Turn	146	153	104.7%	7.2	1.3	A
	Subtotal	146	153	104.7%	7.2	1.3	A
Total		2,052	2,041	99.5%	25.2	2.3	C

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	369	349	94.6%	12.2	4.8	B
	Through	906	911	100.6%	10.2	1.1	B
	Right Turn	74	73	98.4%	9.5	3.6	A
	Subtotal	1,349	1,333	98.8%	10.6	1.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,349	1,333	98.8%	10.6	1.7	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	70	68	97.7%	10.0	1.3	B
	Through	327	316	96.6%	9.1	0.6	A
	Right Turn						
	Subtotal	397	384	96.8%	9.2	0.7	A
EB	Left Turn						
	Through	920	940	102.1%	9.8	0.7	A
	Right Turn	155	158	102.2%	7.9	0.8	A
	Subtotal	1,075	1,098	102.1%	9.5	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,472	1,482	100.7%	9.4	0.4	A

Intersection 35 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	26	98.5%	17.2	4.9	B
	Through	10	8	84.0%	14.2	9.0	B
	Right Turn	226	229	101.2%	9.4	2.6	A
	Subtotal	262	263	100.3%	10.3	2.2	B
SB	Left Turn	7	8	108.6%	24.9	16.6	C
	Through	3	1	40.0%	8.7	14.4	A
	Right Turn	1	2	200.0%	5.6	8.3	A
	Subtotal	11	11	98.2%	25.5	11.2	C
EB	Left Turn	3	1	40.0%	8.4	10.5	A
	Through	489	548	112.0%	10.5	1.9	B
	Right Turn	18	20	113.3%	7.7	3.8	A
	Subtotal	510	569	111.6%	10.4	1.9	B
WB	Left Turn	41	38	92.7%	30.2	6.8	C
	Through	610	589	96.5%	10.9	1.7	B
	Right Turn	15	14	93.3%	8.5	2.4	A
	Subtotal	666	641	96.2%	12.0	1.9	B
Total		1,449	1,484	102.4%	11.2	1.3	B

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	113	116	103.0%	35.3	5.5	D
	Through	131	128	97.4%	21.4	4.2	C
	Right Turn	137	153	111.5%	7.6	2.6	A
	Subtotal	381	397	104.1%	20.0	2.1	C
SB	Left Turn	64	64	100.6%	36.4	8.2	D
	Through	79	86	109.4%	19.8	3.2	B
	Right Turn	14	15	105.7%	5.2	3.1	A
	Subtotal	157	166	105.5%	24.6	3.7	C
EB	Left Turn	27	31	115.6%	41.8	6.6	D
	Through	309	343	111.1%	23.7	1.3	C
	Right Turn	68	72	105.9%	14.7	3.6	B
	Subtotal	404	446	110.5%	23.5	1.6	C
WB	Left Turn	150	136	90.4%	35.9	5.9	D
	Through	393	378	96.2%	22.6	4.8	C
	Right Turn	94	97	103.0%	7.3	1.2	A
	Subtotal	637	610	95.8%	23.0	4.3	C
Total		1,579	1,619	102.5%	22.6	2.0	C

Intersection 37 **3rd Street-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	120.0%	6.3	12.3	A
	Through	3	5	173.3%	21.6	25.0	C
	Right Turn	25	29	116.8%	6.7	4.3	A
	Subtotal	29	36	122.8%	12.3	7.6	B
SB	Left Turn	224	228	101.8%	23.9	3.2	C
	Through	130	142	109.2%	21.2	5.4	C
	Right Turn	136	152	111.8%	12.1	4.4	B
	Subtotal	490	522	106.5%	19.9	3.3	B
EB	Left Turn	26	28	106.2%	43.3	12.2	D
	Through	540	574	106.4%	25.2	7.0	C
	Right Turn	5	5	104.0%	17.3	17.1	B
	Subtotal	571	607	106.3%	26.0	6.7	C
WB	Left Turn	78	89	114.4%	35.4	9.1	D
	Through	858	971	113.1%	20.6	4.4	C
	Right Turn	69	76	110.1%	16.5	6.5	B
	Subtotal	1,005	1,136	113.0%	21.4	4.7	C
Total		2,095	2,301	109.8%	22.1	4.5	C

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	14	104.6%	41.4	17.8	D
	Through	119	127	106.9%	39.3	6.3	D
	Right Turn	70	84	120.0%	6.8	2.9	A
	Subtotal	202	225	111.3%	27.6	4.2	C
SB	Left Turn	56	56	100.0%	8.3	5.2	A
	Through	161	141	87.7%	25.5	4.7	C
	Right Turn	29	29	99.3%	7.6	9.9	A
	Subtotal	246	226	91.9%	18.8	4.2	B
EB	Left Turn	39	39	100.5%	59.0	12.0	E
	Through	445	477	107.2%	38.2	3.4	D
	Right Turn	7	8	108.6%	28.4	18.1	C
	Subtotal	491	524	106.7%	39.7	3.1	D
WB	Left Turn	165	176	106.4%	70.3	12.6	E
	Through	714	782	109.6%	51.8	15.6	D
	Right Turn	116	118	102.1%	29.5	14.6	C
	Subtotal	995	1,076	108.2%	52.4	14.4	D
Total		1,934	2,051	106.1%	42.8	8.2	D

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	251	264	105.3%	9.1	0.8	A
	Through	1,342	1,316	98.0%	7.5	0.5	A
	Right Turn	30	28	93.3%	2.5	1.0	A
	Subtotal	1,623	1,608	99.1%	7.6	0.6	A
EB	Left Turn						
	Through	226	245	108.3%	16.9	1.5	B
	Right Turn	13	16	120.0%	12.3	5.0	B
	Subtotal	239	260	109.0%	16.5	1.5	B
WB	Left Turn	15	13	85.3%	23.2	9.6	C
	Through	57	55	96.8%	12.2	2.3	B
	Right Turn						
	Subtotal	72	68	94.4%	14.2	3.2	B
Total		1,934	1,936	100.1%	9.1	0.6	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	237	237	100.1%	9.9	1.9	A
	Through	1,097	1,077	98.2%	11.4	0.9	B
	Right Turn	36	27	74.4%	6.5	2.1	A
	Subtotal	1,370	1,341	97.9%	11.0	0.8	B
EB	Left Turn						
	Through	304	316	103.9%	15.6	1.8	B
	Right Turn	12	18	150.0%	9.4	4.1	A
	Subtotal	316	334	105.7%	15.3	1.9	B
WB	Left Turn	6	6	100.0%	17.7	18.3	B
	Through	56	54	95.7%	13.0	3.6	B
	Right Turn						
	Subtotal	62	60	96.1%	13.5	4.1	B
Total		1,748	1,734	99.2%	11.9	0.8	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	225	150	400	153	425	143	26%	0%
	Through/Right	2,725	150	82	275	163	250	142	0%	0%
SB	Left Turn	325	100	18	175	37	175	36	0%	0%
	Left/Through	1,500	150	8	225	24	225	30	0%	0%
	Right Turn	325	100	15	150	26	150	29	0%	0%
WB	Left Turn	1,275	200	20	250	20	250	22	0%	0%
	Through	275	200	20	300	30	300	19	0%	1%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	250	14	300	18	275	12	0%	6%
	Through	325	50	9	75	23	100	34	0%	0%
NB	Left/Through	325	50	11	100	16	100	22	0%	0%
	Right Turn	1,175	100	10	150	33	150	38	0%	0%
WB	Through	225	250	18	275	13	250	14	0%	20%
	Right Turn	225	25	16	125	80	175	114	0%	1%
0										

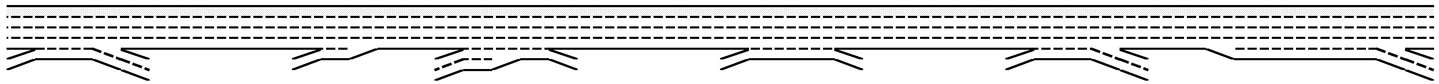
SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Existing Conditions**
Queue Length **PM Peak Hour**
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	100	17	175	21	175	26	0%	0%
	Through	600	125	19	200	66	200	86	0%	0%
	Through/Right	600	225	31	300	62	325	66	0%	0%
NB	Right Turn	1,100	50	6	50	14	50	19	0%	0%
NE	Shared	1,025	75	9	125	21	150	26	0%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
	Right Turn	350	50	8	75	15	75	16	0%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10

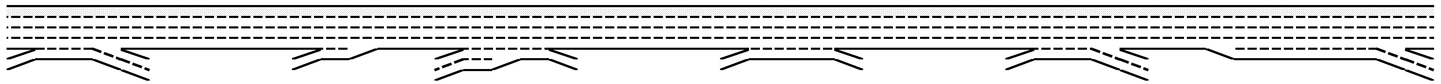


Key

<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	5,658	6,486	6,486	7,453	8,004	8,004	8,427	8,427	8,144	8,144
On Ramp Volume	1,070		967	1,045		1,220		750		
Off Ramp Volume	242			494		797		1,033		2,034
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	5,658	6,486	6,486	7,453	8,004	8,004	8,427	8,427	8,144	8,144
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	6,738	7,724	7,724	8,876	9,532	9,532	10,036	10,036	9,699	9,699
Flow (pcphpl)	1,685	1,931	1,931	2,219	2,383	2,383	2,509	2,509	2,425	1,940
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.72	0.82	0.82	0.94	1.01	1.01	1.07	1.07	1.03	0.83
Speed (mph)	63.9	61.0	61.0	55.5	-	-	-	-	-	60.9
Density (pcphpl)	26.4	31.7	31.7	40.0	-	-	-	-	-	31.9
LOS	D	D	D	E	F	F	F	F	F	D
Calculate Operations for Segment GP Lanes										
Flow (pcph)	8,001		8,747	10,054		10,836		10,911		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.68		0.93	0.86		0.92		0.93		
Flow Rate (pcphpl)	1,600		2,187	2,011		2,167		2,182		
Speed (mph)	64.4		56.2	59.7		56.7		56.3		
Density (pcphpl)	24.8		38.9	33.7		38.3		38.7		
LOS	C		E	D		E		E		

Location	1	2	3	4	5	6	7	8	9	10



Key

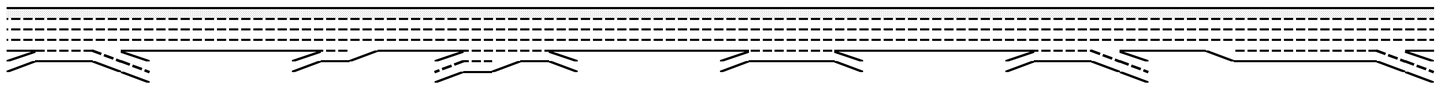
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,745			9,471		9,975		9,783		7,474
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.82			1.01		1.06		1.04		0.80
Flow Rate (pcphpl)	1,936			2,368		2,494		2,446		1,869
Speed (mph)	60.9			-		-		-		61.9
Density (pcphpl)	31.8			-		-		-		30.2
LOS	D			F		F		F		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

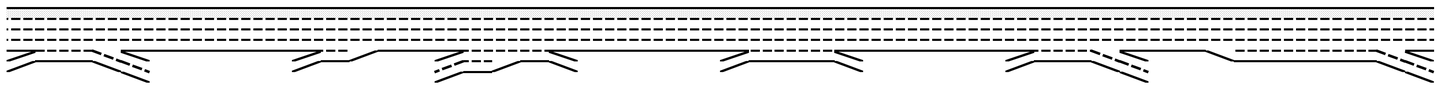
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	1,070		967	1,045		1,220		750		
PHF	0.86		0.96	0.9		0.95		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	1,263		1,022	1,179		1,303		875		
Flow Rate (pcphpl)	1,263		1,022	589		1,303		875		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.60		0.49	0.28		0.62		0.42		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

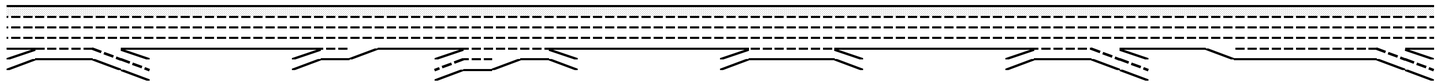
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	242			494		797		1,033		2,034
PHF	0.96			0.86		0.94		0.93		0.96
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	256			583		861		1,127		2,225
Flow Rate (pcphpl)	128			583		861		564		1,112
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.06			0.28		0.41		0.27		0.48
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,724							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.090							
v_{12} (pcph)			695							
v_3 (pcph)										
v_{34} (pcph)			7,029							
v_{12a} (pcph)			3,090							
v_{R12a} (pcph)			4,112							
Speed Index			0.52							
Area Speed			53.0							
Outer Lanes Volume			2,317							
Outer Lanes Speed			58.4							
Segment Speed			55.7							
v/c ratio			0.89							
Density			34.4							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

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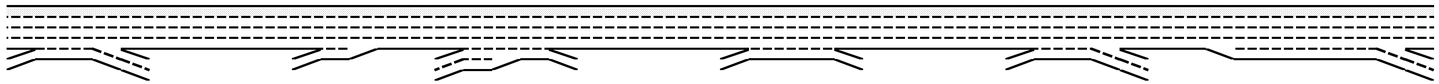
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										33.9
LOS										D
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)						1,020				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)						1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)						200				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)						214				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

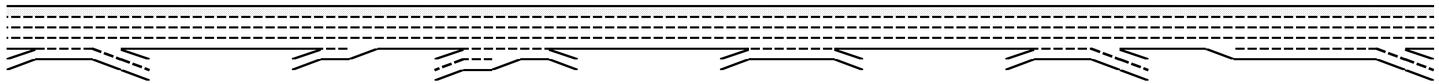
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)						-223				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)						-242				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)						8,227				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)						8,920				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

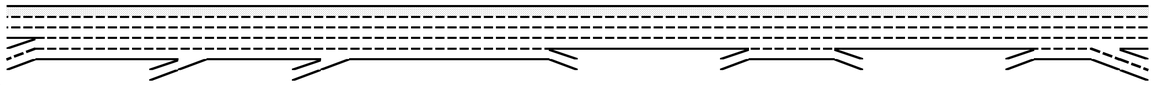
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type						One-sided				
Length						900				
Segment Lanes						6				
Weave Lanes						3				
Weave Flow (pcph)						-28				
Non-Weave Flow						10,010				
Segment Flow						9,981				
Max Weave Length						1,004				
Length Check						OK				
Ideal Weave Capacity						2,342				
f_{HV}						0.973				
f_P						1.000				
Capacity Condition 1						13,665				
Capacity Condition 2						-1,209,209				
v/c ratio						-0.01				
Interchange Density						1				
Lane Changes On to ML						2				
Lane Changes ML to Off						0				
Lane Changes On to Off						0				
Min Lane Change Rate						427				
Weave LC Rate						355				
Non-Weave LC Rate 1						1,394				
Non-Weave LC Rate 2						3,921				
Non-Weave LC Rate 3						-158				
Segment LC Rate						1,749				
Weave Intensity Factor						0.382				
Weave Speed						51.2				
Non-Weave Speed						53.9				
Segment Speed						53.9				
Density						-				
LOS						F				
Summarize Segment Operations										
Segment v/c ratio		0.82	0.89		1.01	-0.01	1.07		1.03	
Segment Density		31.7	34.4	-	-	-	-	-	-	33.9
Segment LOS		D	D	F	F	F	F	F	F	D
Over Capacity				Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Exiting GP Lanes	Entering GP Lanes	
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8

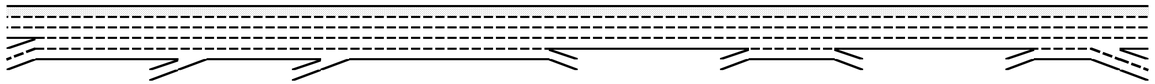


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	3,373	5,590	6,035	6,662	6,148	6,148	6,348	6,348
On Ramp Volume	2,217	445	627			848		786
Off Ramp Volume				514		648		752
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	3,373	5,590	6,035	6,662	6,148	6,148	6,348	6,348
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,682	6,102	6,588	7,273	6,712	6,712	6,930	6,930
Flow (pcphpl)	1,227	1,220	1,318	1,455	1,678	1,678	1,732	1,732
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.52	0.52	0.56	0.62	0.71	0.71	0.74	0.74
Speed (mph)	65.0	65.0	65.0	65.0	63.9	63.9	63.4	63.4
Density (pcphpl)	18.9	18.8	20.3	22.4	26.3	26.3	27.3	27.3
LOS	C	C	C	C	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	6,185	6,640	7,303			7,668		7,752
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.53	0.57	0.62			0.65		0.66
Flow Rate (pcphpl)	1,237	1,328	1,461			1,534		1,550
Speed (mph)	65.0	65.0	64.9			64.7		64.7
Density (pcphpl)	19.0	20.4	22.5			23.7		24.0
LOS	C	C	C			C		C

Location	1	2	3	4	5	6	7	8

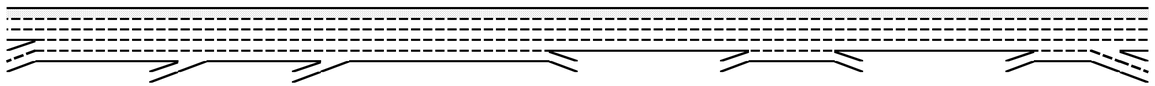


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				6,718		6,894		6,957
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.71		0.73		0.74
Flow Rate (pcphpl)				1,679		1,724		1,739
Speed (mph)				63.9		63.5		63.4
Density (pcphpl)				26.3		27.1		27.4
LOS				D		D		D

Location	1	2	3	4	5	6	7	8



Key

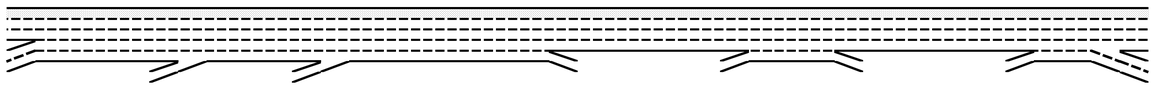
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,217	445	627			848		786
PHF	0.93	0.84	0.89			0.9		0.97
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,503	538	715			956		822
Flow Rate (pcphpl)	1,252	538	715			956		822
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.54	0.26	0.34			0.46		0.39

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

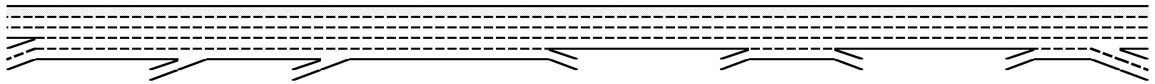
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				514		648		752
PHF				0.94		0.85		0.96
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				555		774		795
Flow Rate (pcphpl)				555		774		398
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.26		0.37		0.19
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		4,638	4,809					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.151	0.128					
v_{12} (pcph)		698	618					
v_3 (pcph)								
v_{34} (pcph)		3,939	4,192					
v_{12a} (pcph)		1,855	1,924					
v_{R12a} (pcph)		2,393	2,639					
Speed Index		0.35	0.35					
Area Speed		56.8	56.9					
Outer Lanes Volume		1,391	1,443					
Outer Lanes Speed		61.8	61.6					
Segment Speed		59.4	59.3					
v/c ratio		0.52	0.57					
Density		23.3	24.0					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

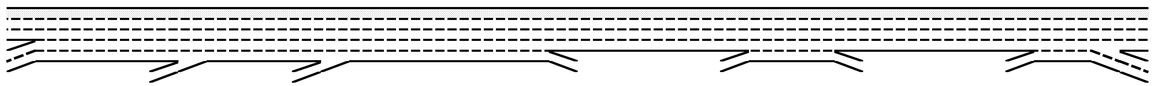
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				5,818				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.589				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,850				
v_3 (pcph)								
v_{34} (pcph)				2,968				
v_{12a} (pcph)				2,850				
Speed Index				0.35				
Area Speed				57.0				
Outer Lanes Volume				1,484				
Outer Lanes Speed				69.4				
Segment Speed				62.7				
v/c ratio				0.65				
Density				22.0				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

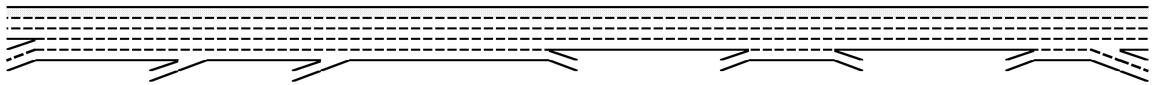
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

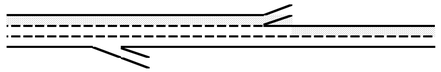
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.53	0.52	0.57	0.65	0.71		0.74	
Segment Density	19.0	23.3	24.0	22.0	26.3		27.3	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3

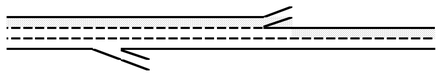


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	4,638	4,146	3,749
On Ramp Volume			
Off Ramp Volume	492	397	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	4,638	4,146	3,749
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	5,008	4,477	4,048
Flow (pcphpl)	1,669	1,492	2,024
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.71	0.62	0.84
Speed (mph)	64.0	69.0	62.1
Density (pcphpl)	26.1	21.6	32.6
LOS	D	C	D
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

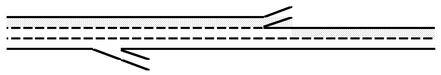


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	4,477	4,048	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.64	0.84	
Flow Rate (pcphpl)	1,492	2,024	
Speed (mph)	64.9	62.1	
Density (pcphpl)	23.0	32.6	
LOS	C	D	

Location	1	2	3

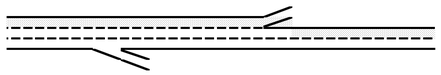


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

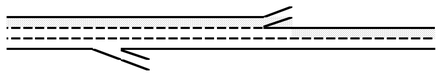


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	492	397	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	531	429	
Flow Rate (pcphpl)	531	429	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.25	0.21	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		531	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

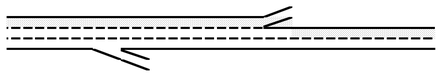


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	5,008		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.610		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.610		
v_{12} (pcph)	3,264		
v_3 (pcph)	1,744		
v_{34} (pcph)			
v_{12a} (pcph)	3,264		
Speed Index	0.35		
Area Speed	57.0		
Outer Lanes Volume	1,744		
Outer Lanes Speed	68.4		
Segment Speed	60.5		
v/c ratio	0.74		
Density	31.0		
LOS	D		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

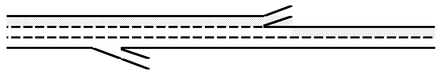


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

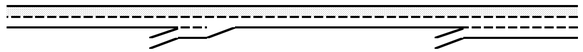
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.74	0.62	0.84
Segment Density	31.0	21.6	32.6
Segment LOS	D	C	D
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

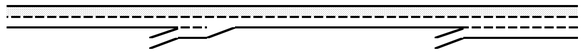


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,042	2,042	2,224	2,224
On Ramp Volume		182		308
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,042	2,042	2,224	2,224
PHF	0.97	0.97	0.97	0.97
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,137	2,137	2,327	2,327
Flow (pcphpl)	1,068	1,068	1,164	776
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.47	0.45	0.50	0.33
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	19.4	16.4	17.9	11.9
LOS	C	B	B	B
Operations for Segment GP Lanes				
Flow (pcph)		2,327		2,649
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.50		0.38
Flow Rate (pcphpl)		1,164		883
Speed (mph)		65.0		65.0
Density (pcphpl)		17.9		13.6
LOS		B		B

Location	1	2	3	4

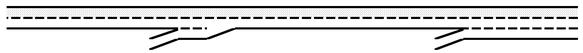


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

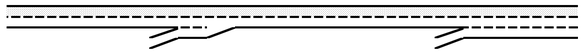


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		182		308
PHF		0.97		0.97
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		190		322
Flow Rate (pcphpl)		190		322
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.09		0.15

Location	1	2	3	4

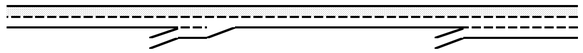


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,137		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,137		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,137		
v_{R12a} (pcph)		2,327		
Speed Index		0.29		
Area Speed		58.3		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.3		
v/c ratio		0.51		
Density		18.8		
LOS		B		

Location	1	2	3	4

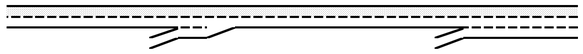


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

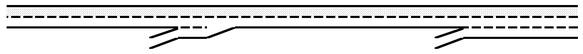


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

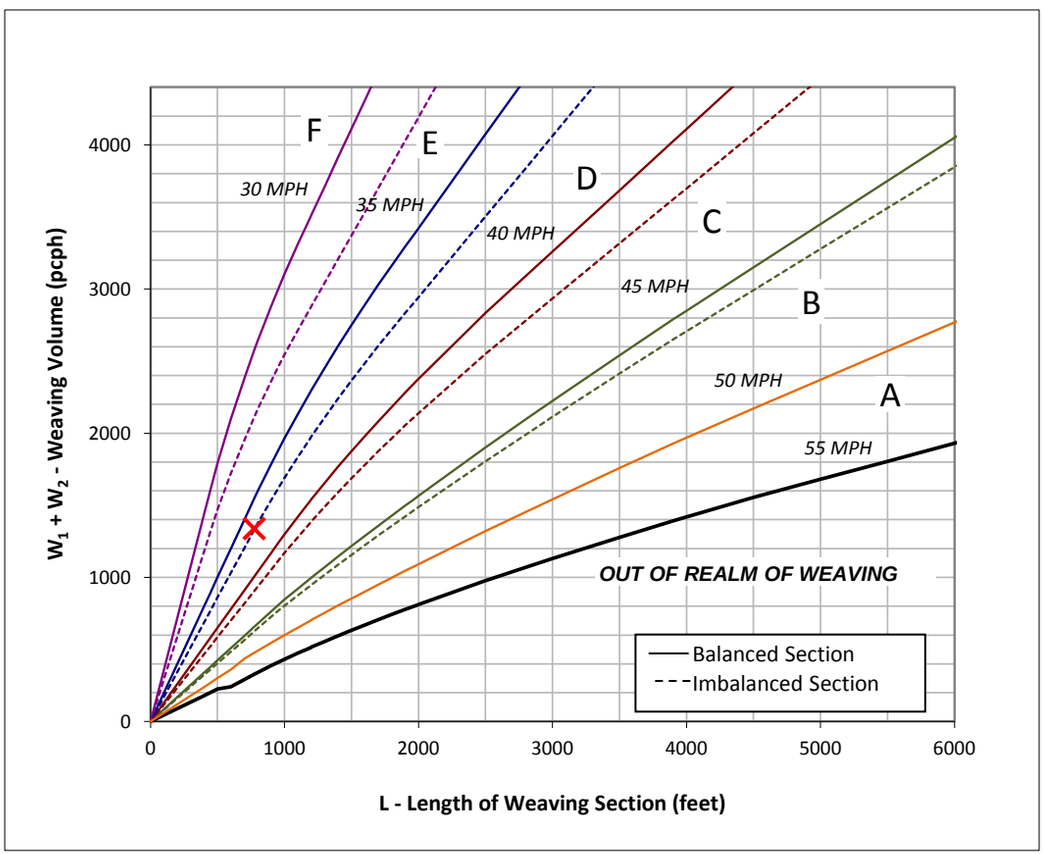
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.47	0.51	0.50	0.38
Segment Density	19.4	18.8	17.9	13.6
Segment LOS	C	B	B	B
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,728	Volume (vph)*	1,070	Volume (vph)*	242
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,051	Volume (pcph)	1,091	Volume (pcph)	247



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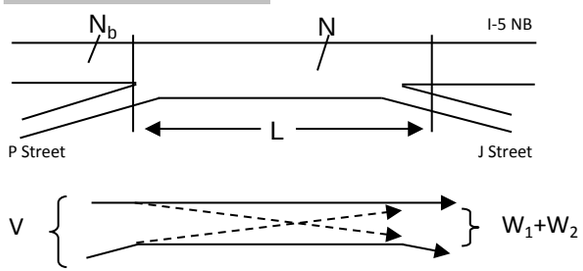


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.0
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,509
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

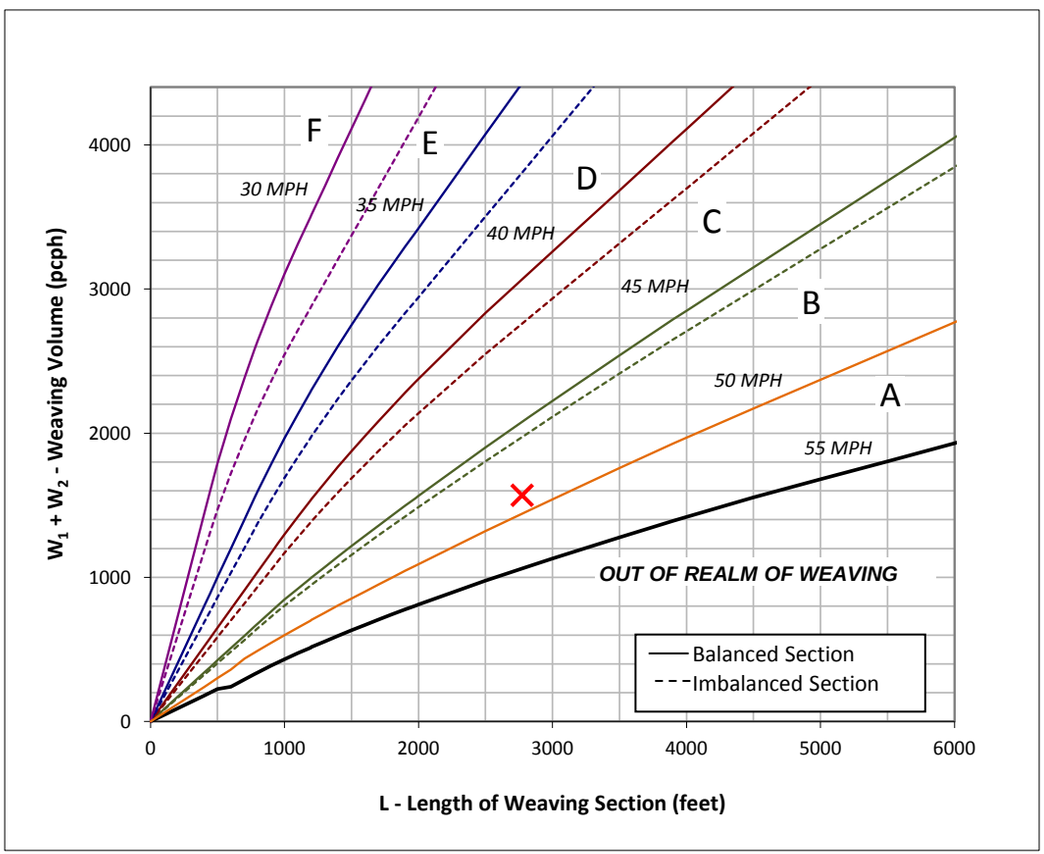
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,498	Volume (vph)*	1,045	Volume (vph)*	494
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,906	Volume (pcph)	1,066	Volume (pcph)	504



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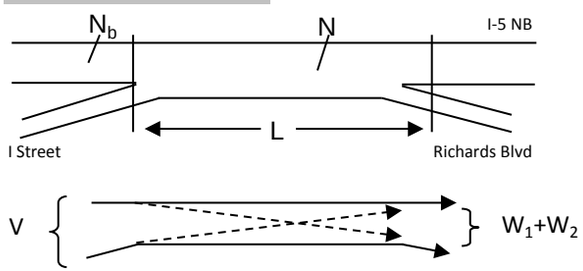


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	48.8
4. Weaving Intensity Factor (k)	1.12
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,793
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

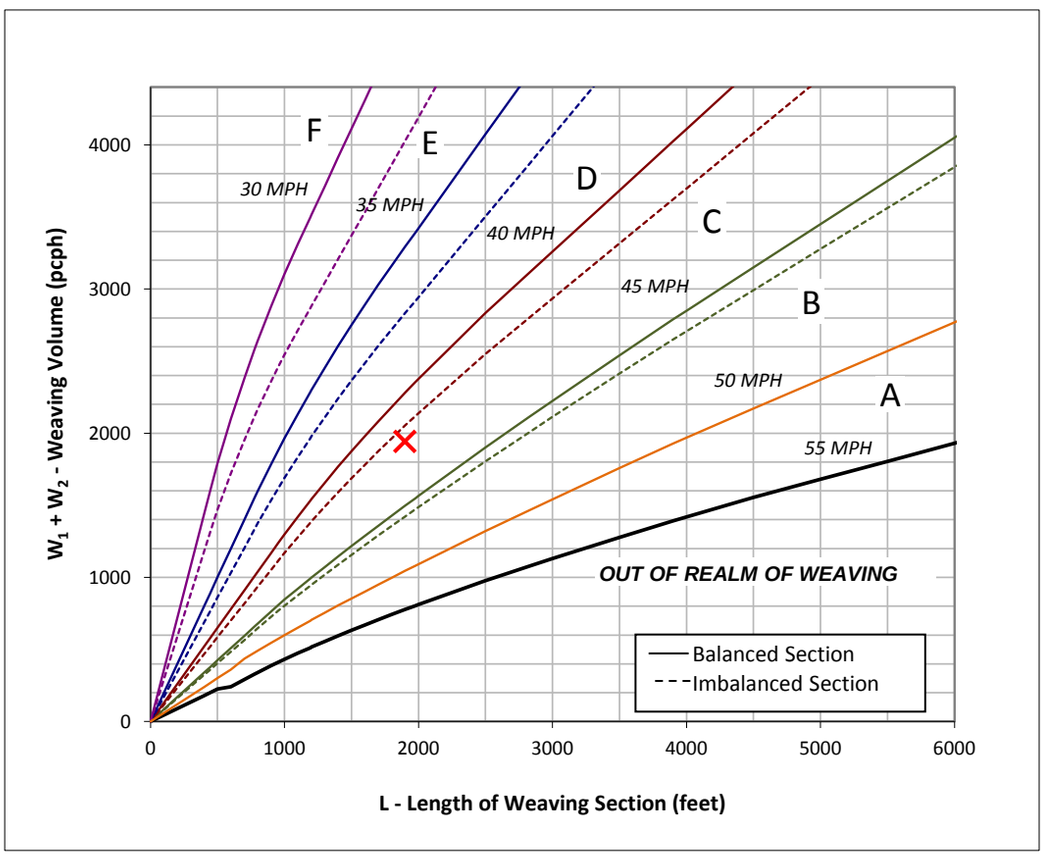
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,224	Volume (vph)*	1,159	Volume (vph)*	746
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,667	Volume (pcph)	1,182	Volume (pcph)	761



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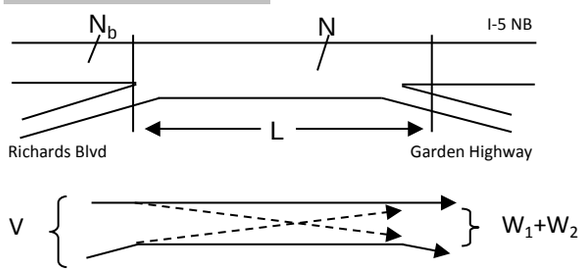


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	40.9
4. Weaving Intensity Factor (k)	2.45
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,154
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

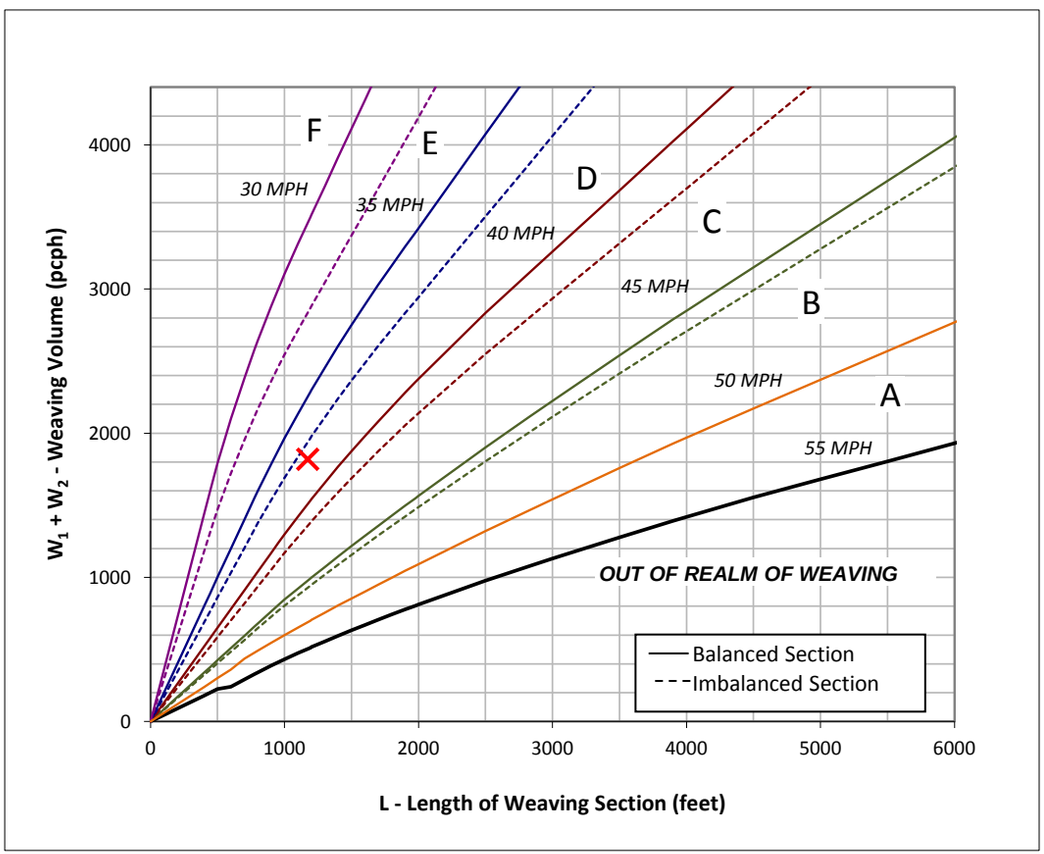
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,177	Volume (vph)*	750	Volume (vph)*	1,033
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,617	Volume (pcph)	765	Volume (pcph)	1,054



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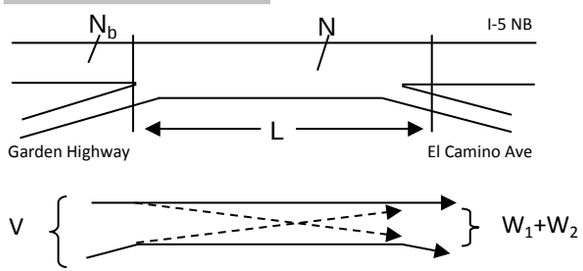


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.9
4. Weaving Intensity Factor (k)	2.65
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,176
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

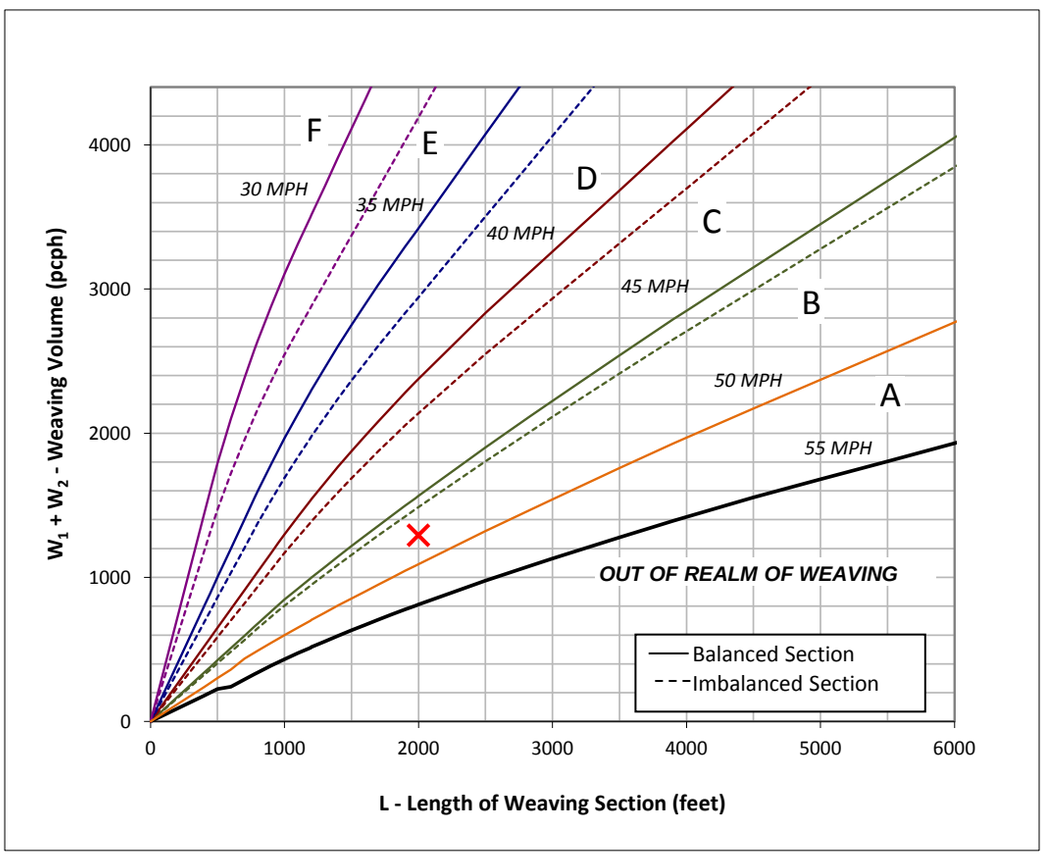
Data Input

Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,996	Volume (vph)*	747	Volume (vph)*	519
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,332	Volume (pcph)	762	Volume (pcph)	529

Project Information

Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd



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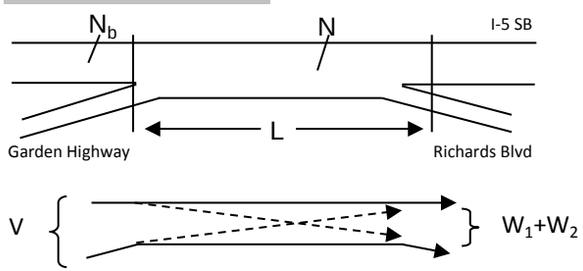


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**

   If optional exit lane, then "Y". Otherwise "N".

2. In the chart to the left, which two speed curves is the red "x" between?

   45 MPH and **50 MPH**

   If left of the 30 MPH curve, LOS is F. Select "-".

   If below the 55 MPH curve, out of the realm of weaving.

3. Interpolated Weaving Speed (S_w, mph) **47.5**
4. Weaving Intensity Factor (k) **1.32**
5. Service Volume (SV, pcph)

   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,501**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

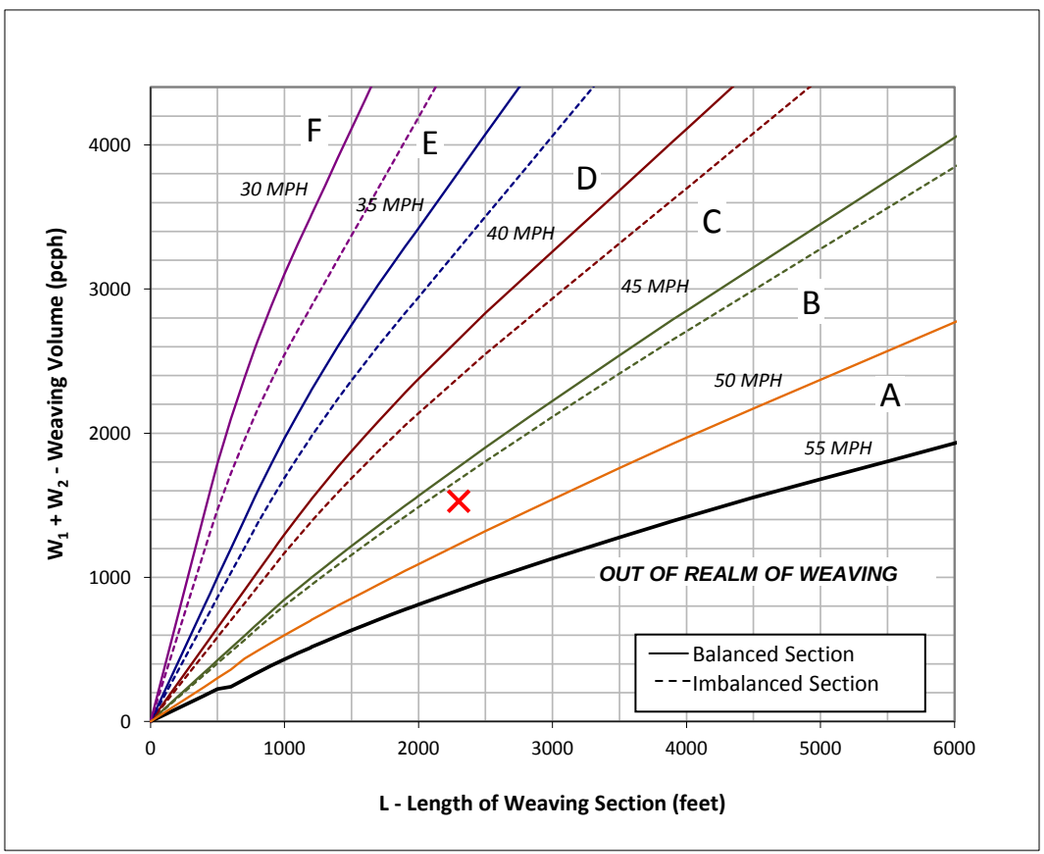
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

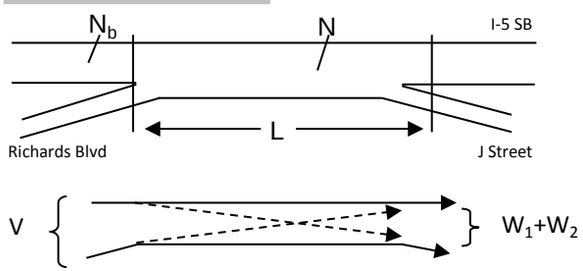
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing PM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,134	Volume (vph)*	762	Volume (vph)*	735
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,476	Volume (pcph)	777	Volume (pcph)	750



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	47.2
4. Weaving Intensity Factor (k)	1.38
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,552
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	230	241	104.9%	30.5	2.6	C
	Through	3	4	120.0%	18.8	22.3	B
	Right Turn	152	158	104.2%	5.7	1.3	A
	Subtotal	385	403	104.7%	20.7	1.7	C
EB	Left Turn						
	Through	315	308	97.7%	25.0	1.7	C
	Right Turn	48	43	89.2%	3.1	1.5	A
	Subtotal	363	350	96.5%	22.4	1.5	C
WB	Left Turn	272	257	94.4%	17.6	3.5	B
	Through	223	209	93.8%	3.3	0.9	A
	Right Turn						
	Subtotal	495	466	94.1%	11.2	2.0	B
Total		1,243	1,220	98.1%	17.5	1.0	B

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	63	90.3%	34.5	7.2	C
	Through	1	1	80.0%	4.1	13.0	A
	Right Turn	233	218	93.7%	6.3	0.7	A
	Subtotal	304	282	92.9%	12.8	2.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	159	147	92.3%	47.6	2.5	D
	Through	386	403	104.4%	2.1	0.3	A
	Right Turn						
	Subtotal	545	550	100.8%	14.3	1.5	B
WB	Left Turn						
	Through	425	402	94.7%	8.7	1.7	A
	Right Turn	314	309	98.5%	2.9	0.4	A
	Subtotal	739	712	96.3%	6.2	1.0	A
Total		1,588	1,544	97.2%	10.3	0.9	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	53	91.7%	32.5	4.2	C
	Through	5	4	72.0%	41.5	37.5	D
	Right Turn	2	3	140.0%	5.2	9.4	A
	Subtotal	65	60	91.7%	32.5	4.7	C
SB	Left Turn	23	25	109.6%	37.8	10.1	D
	Through	3	4	133.3%	21.5	27.7	C
	Right Turn	71	78	109.9%	5.7	1.4	A
	Subtotal	97	107	110.5%	14.5	4.0	B
EB	Left Turn	66	61	92.1%	41.5	7.4	D
	Through	508	489	96.3%	9.2	2.8	A
	Right Turn	45	58	128.9%	2.1	0.2	A
	Subtotal	619	608	98.2%	11.7	2.3	B
WB	Left Turn	15	14	96.0%	42.3	20.1	D
	Through	610	591	96.9%	11.3	2.5	B
	Right Turn	16	12	77.5%	8.5	4.7	A
	Subtotal	641	618	96.3%	12.0	2.3	B
Total		1,422	1,392	97.9%	13.0	1.6	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	12	92.3%	36.9	21.0	D
	Through						
	Right Turn	5	7	144.0%	4.7	4.4	A
	Subtotal	18	19	106.7%	27.0	18.8	C
SB	Left Turn	2	1	60.0%	5.9	10.1	A
	Through						
	Right Turn	11	11	98.2%	5.0	2.6	A
	Subtotal	13	12	92.3%	6.0	4.0	A
EB	Left Turn	11	9	83.6%	43.0	16.5	D
	Through	516	498	96.6%	1.7	0.8	A
	Right Turn	6	3	53.3%	1.1	1.4	A
	Subtotal	533	511	95.8%	2.6	1.0	A
WB	Left Turn						
	Through	617	596	96.6%	2.9	0.9	A
	Right Turn	3	3	106.7%	1.5	1.7	A
	Subtotal	620	599	96.6%	2.9	0.9	A
Total		1,184	1,141	96.4%	3.1	1.0	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	27	95.7%	37.3	12.2	D
	Through	4	9	220.0%	17.5	13.9	B
	Right Turn	21	21	101.0%	8.0	1.5	A
	Subtotal	53	57	107.2%	22.7	5.3	C
SB	Left Turn	10	11	108.0%	28.5	16.9	C
	Through	10	14	136.0%	45.1	13.4	D
	Right Turn	9	12	133.3%	5.4	2.8	A
	Subtotal	29	36	125.5%	28.2	11.7	C
EB	Left Turn	6	4	73.3%	33.1	22.1	C
	Through	512	513	100.2%	1.6	0.4	A
	Right Turn	5	2	40.0%	0.9	1.8	A
	Subtotal	523	519	99.3%	2.0	0.3	A
WB	Left Turn	3	2	80.0%	13.6	18.5	B
	Through	583	563	96.5%	3.6	1.4	A
	Right Turn	5	5	96.0%	1.1	1.4	A
	Subtotal	591	570	96.4%	3.6	1.4	A
Total		1,196	1,182	98.9%	4.6	1.0	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	40.0%	6.4	20.1	A
	Through						
	Right Turn	4	4	90.0%	3.0	4.0	A
	Subtotal	5	4	80.0%	9.3	19.5	A
SB	Left Turn	6	7	113.3%	30.6	25.7	C
	Through						
	Right Turn	8	8	95.0%	4.1	3.2	A
	Subtotal	14	14	102.9%	20.2	17.6	C
EB	Left Turn	9	8	93.3%	36.7	19.0	D
	Through	531	538	101.4%	2.6	1.2	A
	Right Turn	3	2	80.0%	0.3	0.8	A
	Subtotal	543	549	101.1%	3.2	1.0	A
WB	Left Turn	3	0	13.3%	0.7	2.2	A
	Through	582	562	96.6%	3.5	1.0	A
	Right Turn	4	4	100.0%	3.4	3.8	A
	Subtotal	589	567	96.2%	3.5	1.0	A
Total		1,151	1,134	98.6%	3.6	0.9	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	33	88.6%	21.9	10.5	C
	Through	6	6	106.7%	9.2	7.4	A
	Right Turn	38	45	117.9%	5.8	1.0	A
	Subtotal	81	84	103.7%	11.9	3.9	B
SB	Left Turn	7	6	80.0%	13.9	13.2	B
	Through	1	2	160.0%	6.3	13.2	A
	Right Turn	18	17	93.3%	14.2	12.8	B
	Subtotal	26	24	92.3%	15.3	8.7	B
EB	Left Turn	9	8	93.3%	15.3	13.5	B
	Through	503	502	99.8%	9.3	4.5	A
	Right Turn	29	28	95.2%	7.4	5.5	A
	Subtotal	541	538	99.4%	9.4	4.2	A
WB	Left Turn	20	20	102.0%	24.9	7.2	C
	Through	536	520	96.9%	7.7	2.0	A
	Right Turn	7	7	97.1%	5.7	5.3	A
	Subtotal	563	547	97.1%	8.3	1.9	A
Total		1,211	1,193	98.5%	9.3	2.6	A

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	15	101.3%	34.6	11.6	C
	Through	1	2	160.0%	11.3	21.8	B
	Right Turn	4	4	100.0%	4.1	3.8	A
	Subtotal	20	21	104.0%	28.7	10.2	C
SB	Left Turn	8	8	100.0%	35.5	24.5	D
	Through	3	2	53.3%	11.5	20.4	B
	Right Turn	20	18	90.0%	3.9	1.8	A
	Subtotal	31	28	89.0%	13.9	8.0	B
EB	Left Turn	13	12	89.2%	48.9	15.0	D
	Through	523	530	101.4%	3.8	0.8	A
	Right Turn	12	14	116.7%	3.7	0.8	A
	Subtotal	548	556	101.5%	4.7	0.6	A
WB	Left Turn	13	14	104.6%	37.7	9.9	D
	Through	424	418	98.7%	2.7	0.9	A
	Right Turn	12	13	106.7%	2.4	1.2	A
	Subtotal	449	445	99.1%	3.8	0.8	A
Total		1,048	1,049	100.1%	5.0	0.5	A

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	40.0%	4.3	12.9	A
	Through						
	Right Turn	9	10	106.7%	3.2	1.7	A
	Subtotal	10	10	100.0%	4.4	4.8	A
SB	Left Turn	22	26	120.0%	35.5	9.6	D
	Through						
	Right Turn	16	14	85.0%	6.3	5.5	A
	Subtotal	38	40	105.3%	24.7	8.0	C
EB	Left Turn	3	4	133.3%	36.5	34.0	D
	Through	513	513	100.0%	6.1	2.5	A
	Right Turn	19	28	149.5%	2.8	1.4	A
	Subtotal	535	545	101.9%	6.3	2.5	A
WB	Left Turn	11	11	98.2%	42.0	24.1	D
	Through	432	426	98.7%	6.1	1.7	A
	Right Turn	2	3	140.0%	3.5	1.1	A
	Subtotal	445	440	98.9%	6.9	1.9	A
Total		1,028	1,035	100.7%	7.2	2.2	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	52	55	106.2%	53.6	8.2	D
	Through	1,179	1,168	99.1%	7.4	0.8	A
	Right Turn	2	2	100.0%	0.9	1.0	A
	Subtotal	1,233	1,226	99.4%	9.4	1.1	A
SB	Left Turn						
	Through	729	762	104.5%	10.0	1.1	A
	Right Turn	429	430	100.2%	4.3	0.3	A
	Subtotal	1,158	1,192	102.9%	7.9	0.7	A
EB	Left Turn	534	543	101.6%	38.2	3.4	D
	Through						
	Right Turn	23	21	92.2%	4.0	0.9	A
	Subtotal	557	564	101.3%	36.9	3.1	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,948	2,981	101.1%	14.1	1.2	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	7	5	68.6%	4.8	4.1	A
	Right Turn						
	Subtotal	7	5	68.6%	4.8	4.1	A
SB	Left Turn	47	53	113.2%	4.1	0.5	A
	Through	7	13	182.9%	4.4	0.7	A
	Right Turn						
	Subtotal	54	66	122.2%	4.2	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	2	80.0%	2.0	2.5	A
	Through						
	Right Turn	37	33	88.6%	2.7	0.4	A
	Subtotal	39	34	88.2%	2.8	0.4	A
Total		100	105	105.2%	3.7	0.2	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	26	82.6%	4.2	0.5	A
	Through	43	45	105.1%	5.5	0.4	A
	Right Turn						
	Subtotal	74	71	95.7%	5.0	0.2	A
SB	Left Turn						
	Through	10	8	76.0%	5.5	2.8	A
	Right Turn	8	8	100.0%	3.2	2.1	A
	Subtotal	18	16	86.7%	5.4	1.6	A
EB	Left Turn	10	10	104.0%	3.9	1.6	A
	Through						
	Right Turn	37	42	114.6%	2.6	0.3	A
	Subtotal	47	53	112.3%	2.9	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		139	139	100.1%	4.3	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	14	87.5%	15.2	11.1	B
	Through	69	73	106.1%	10.5	3.2	B
	Right Turn	12	14	113.3%	8.2	8.5	A
	Subtotal	97	101	103.9%	10.2	2.8	B
SB	Left Turn	15	12	82.7%	8.6	4.3	A
	Through	37	42	114.6%	10.0	2.5	B
	Right Turn						
	Subtotal	52	55	105.4%	9.6	2.6	A
EB	Left Turn						
	Through	69	68	98.6%	11.7	2.5	B
	Right Turn	12	11	90.0%	2.2	1.5	A
	Subtotal	81	79	97.3%	10.4	2.5	B
WB	Left Turn	29	32	110.3%	10.0	2.7	A
	Through	15	19	125.3%	9.7	6.4	A
	Right Turn	10	15	148.0%	8.9	6.2	A
	Subtotal	54	66	121.5%	10.3	2.3	B
Total		284	300	105.6%	10.2	1.8	B

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	22	23	103.6%	43.2	11.0	D
	Through	33	35	106.7%	41.4	5.9	D
	Right Turn	4	4	90.0%	19.5	27.7	B
	Subtotal	59	62	104.4%	42.0	7.3	D
SB	Left Turn	3	4	133.3%	12.5	15.8	B
	Through	19	22	113.7%	36.4	17.4	D
	Right Turn	5	8	168.0%	8.2	7.4	A
	Subtotal	27	34	125.9%	29.0	13.8	C
EB	Left Turn	1	0	40.0%	1.4	#DIV/0!	A
	Through	69	66	96.2%	34.5	7.5	C
	Right Turn	26	25	96.9%	13.1	10.2	B
	Subtotal	96	92	95.8%	28.7	7.8	C
SW	Left Turn	24	26	110.0%	6.6	3.8	A
	Through	702	742	105.8%	6.9	1.9	A
	Right Turn	16	19	117.5%	6.6	4.6	A
	Subtotal	742	788	106.1%	6.8	1.9	A
Total		924	975	105.5%	11.9	1.4	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	45	101.8%	7.3	2.3	A
	Through	955	949	99.4%	5.2	0.4	A
	Right Turn	2	1	40.0%	0.4	1.1	A
	Subtotal	1,001	995	99.4%	5.3	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	41	43	105.4%	15.1	4.4	B
	Through	2	3	140.0%	7.6	10.4	A
	Right Turn						
	Subtotal	43	46	107.0%	15.3	4.3	B
WB	Left Turn						
	Through	1	1	80.0%	1.6	4.6	A
	Right Turn	3	2	66.7%	1.3	1.8	A
	Subtotal	4	3	70.0%	2.0	3.0	A
Total		1,048	1,044	99.6%	5.7	0.4	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	80.0%	6.9	7.7	A
	Through	5	4	88.0%	6.4	10.9	A
	Right Turn						
	Subtotal	17	14	82.4%	8.1	7.6	A
SB	Left Turn						
	Through	7	7	97.1%	6.8	4.2	A
	Right Turn	9	6	71.1%	4.6	3.4	A
	Subtotal	16	13	82.5%	6.3	3.9	A
EB	Left Turn						
	Through	4	4	110.0%	8.7	11.0	A
	Right Turn						
	Subtotal	4	4	110.0%	8.7	11.0	A
WB	Left Turn	20	17	86.0%	3.2	2.2	A
	Through	730	770	105.4%	3.4	1.6	A
	Right Turn	2	2	80.0%	1.0	1.2	A
	Subtotal	752	788	104.8%	3.4	1.5	A
Total		789	820	103.9%	3.6	1.6	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	72	64	89.4%	1.9	0.6	A
	Right Turn	1	4	360.0%	1.3	1.6	A
	Subtotal	73	68	93.2%	1.8	0.7	A
SB	Left Turn	9	12	137.8%	6.9	3.1	A
	Through	69	64	93.3%	1.9	1.1	A
	Right Turn						
	Subtotal	78	77	98.5%	2.9	1.3	A
EB	Left Turn	1	1	120.0%	2.0	4.4	A
	Through	1	1	80.0%	2.4	6.0	A
	Right Turn	2	3	160.0%	0.9	1.0	A
	Subtotal	4	5	130.0%	3.2	4.4	A
WB	Left Turn	14	17	120.0%	5.8	2.7	A
	Through	2	1	60.0%	2.1	1.6	A
	Right Turn	24	24	100.0%	3.1	0.4	A
	Subtotal	40	42	105.0%	4.2	1.3	A
Total		195	192	98.5%	2.8	0.6	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	18	103.5%	4.2	1.1	A
	Through	36	34	94.4%	5.0	0.5	A
	Right Turn	25	27	108.8%	3.2	0.4	A
	Subtotal	78	79	101.0%	4.2	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	6	9	146.7%	4.7	0.7	A
	Through	8	12	150.0%	5.5	0.4	A
	Right Turn						
	Subtotal	14	21	148.6%	5.1	0.6	A
WB	Left Turn						
	Through	25	26	105.6%	4.8	0.7	A
	Right Turn	3	4	133.3%	1.9	2.5	A
	Subtotal	28	30	108.6%	4.6	0.8	A
Total		120	130	108.3%	4.5	0.3	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	29	26	91.0%	4.4	2.5	A
	Right Turn						
	Subtotal	29	26	91.0%	4.4	2.5	A
SB	Left Turn						
	Through	125	125	99.8%	8.4	1.1	A
	Right Turn						
	Subtotal	125	125	99.8%	8.4	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	60	59	98.0%	6.4	1.6	A
	Through						
	Right Turn	69	67	96.8%	2.6	1.0	A
	Subtotal	129	126	97.4%	4.4	1.1	A
Total		283	277	97.8%	6.2	0.9	A

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	10	96.0%	2.7	2.5	A
	Through						
	Right Turn	108	106	97.8%	2.9	0.9	A
	Subtotal	118	115	97.6%	2.9	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	15	13	88.0%	4.8	2.6	A
	Right Turn						
	Subtotal	15	13	88.0%	4.8	2.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		133	128	96.5%	3.2	0.9	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2	0	20.0%	3.0	9.6	A
	Right Turn	38	39	103.2%	2.3	1.1	A
	Subtotal	40	40	99.0%	2.6	1.4	A
SB	Left Turn						
	Through	21	19	89.5%	9.9	3.7	A
	Right Turn						
	Subtotal	21	19	89.5%	9.9	3.7	A
EB	Left Turn	4	7	170.0%	12.0	8.1	B
	Through	103	95	92.4%	9.1	1.9	A
	Right Turn	16	17	105.0%	3.3	1.3	A
	Subtotal	123	119	96.6%	8.7	1.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		184	177	96.3%	7.4	1.3	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	23	28	120.0%	9.4	4.1	A
	Through	180	171	95.1%	7.0	1.5	A
	Right Turn						
	Subtotal	203	199	97.9%	7.4	1.4	A
EB	Left Turn	17	18	103.5%	6.6	3.2	A
	Through	101	92	90.7%	6.9	2.1	A
	Right Turn	23	25	107.8%	3.1	1.3	A
	Subtotal	141	134	95.0%	6.3	1.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		344	333	96.7%	6.9	1.2	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	98	99	101.2%	6.3	0.8	A
	Right Turn	55	54	98.9%	3.5	0.7	A
	Subtotal	153	154	100.4%	5.3	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	18	11	60.0%	3.7	2.0	A
	Through	112	116	103.9%	6.0	1.6	A
	Right Turn						
	Subtotal	130	127	97.8%	5.8	1.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		283	281	99.2%	5.6	0.7	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	15	22	146.7%	16.1	6.0	B
	Through						
	Right Turn	273	257	94.2%	17.3	1.6	B
	Subtotal	288	279	96.9%	17.2	1.6	B
EB	Left Turn	268	277	103.3%	20.9	2.3	C
	Through	91	90	98.5%	11.2	1.6	B
	Right Turn						
	Subtotal	359	366	102.1%	18.5	1.9	B
WB	Left Turn						
	Through	102	110	107.8%	15.6	5.7	B
	Right Turn	35	41	117.7%	4.3	2.8	A
	Subtotal	137	151	110.4%	12.6	4.8	B
Total		784	797	101.6%	16.9	2.0	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	326	346	106.0%	21.3	4.6	C
	Through	120	133	111.0%	16.4	3.7	B
	Right Turn						
	Subtotal	446	479	107.4%	19.9	2.9	B
SB	Left Turn						
	Through						
	Right Turn	25	24	94.4%	20.9	5.8	C
	Subtotal	25	24	94.4%	20.9	5.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,122	1,118	99.6%	2.8	0.8	A
	Right Turn	42	32	77.1%	1.3	0.6	A
	Subtotal	1,164	1,150	98.8%	2.7	0.8	A
Total		1,635	1,652	101.1%	8.0	1.0	A

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	80.0%	16.7	12.3	B
	Through	11	14	123.6%	16.5	8.4	B
	Right Turn						
	Subtotal	23	23	100.9%	18.0	6.6	B
SB	Left Turn						
	Through	1	1	80.0%	2.2	4.6	A
	Right Turn	36	34	95.6%	4.8	1.5	A
	Subtotal	37	35	95.1%	5.0	1.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	8	100.0%	2.7	2.1	A
	Through	1,116	1,108	99.3%	4.8	0.4	A
	Right Turn	29	28	95.2%	3.6	0.8	A
	Subtotal	1,153	1,144	99.2%	4.8	0.4	A
Total		1,213	1,202	99.1%	5.0	0.4	A

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	67	63	93.7%	3.5	1.6	A
	Right Turn	136	132	97.1%	5.2	1.4	A
	Subtotal	203	195	96.0%	4.7	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	69	66	95.7%	4.2	1.0	A
	Through	1,017	1,006	98.9%	4.8	0.6	A
	Right Turn						
	Subtotal	1,086	1,072	98.7%	4.8	0.6	A
Total		1,289	1,267	98.3%	4.8	0.6	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	149	137	91.8%	7.8	1.3	A
	Through	133	133	99.8%	7.4	1.8	A
	Right Turn						
	Subtotal	282	270	95.6%	7.6	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	937	937	100.0%	9.9	0.8	A
	Right Turn	20	22	108.0%	5.8	3.0	A
	Subtotal	957	958	100.1%	9.8	0.8	A
Total		1,239	1,228	99.1%	9.3	0.7	A

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	35	28	78.9%	16.6	5.1	B
	Through	173	162	93.9%	15.2	2.1	B
	Right Turn	21	17	80.0%	5.3	3.3	A
	Subtotal	229	207	90.3%	14.6	2.1	B
SB	Left Turn	186	188	101.1%	18.0	1.1	B
	Through	214	210	98.3%	18.5	2.6	B
	Right Turn						
	Subtotal	400	398	99.6%	18.2	1.6	B
EB	Left Turn	40	46	115.0%	20.9	3.7	C
	Through	418	400	95.7%	20.0	2.7	C
	Right Turn	96	82	85.8%	18.5	3.1	B
	Subtotal	554	528	95.4%	19.9	2.3	B
NB	Left Turn						
	Through						
	Right Turn	68	62	91.8%	4.9	0.5	A
	Subtotal	68	62	91.8%	4.9	0.5	A
Total		1,251	1,196	95.6%	17.6	1.5	B

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	232	244	105.0%	7.5	0.8	A
	Through	596	562	94.2%	9.1	0.8	A
	Right Turn	32	32	98.8%	5.9	1.6	A
	Subtotal	860	837	97.3%	8.5	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		860	837	97.3%	8.5	0.7	A

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	36	31	86.7%	5.2	2.4	A
	Through	100	96	95.6%	8.9	1.7	A
	Right Turn						
	Subtotal	136	127	93.2%	8.0	1.5	A
EB	Left Turn						
	Through	629	611	97.2%	8.8	0.8	A
	Right Turn	110	108	97.8%	6.1	1.0	A
	Subtotal	739	719	97.3%	8.4	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		875	846	96.6%	8.3	0.7	A

Intersection 35 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	10	115.6%	11.9	8.9	B
	Through	4	6	140.0%	12.0	12.0	B
	Right Turn	29	38	132.4%	4.7	0.9	A
	Subtotal	42	54	129.5%	8.0	2.7	A
SB	Left Turn	8	13	160.0%	23.7	9.9	C
	Through						
	Right Turn	2	4	200.0%	3.4	2.6	A
	Subtotal	10	17	168.0%	20.7	10.6	C
EB	Left Turn	3	5	160.0%	17.1	14.0	B
	Through	322	414	128.7%	5.8	1.0	A
	Right Turn	15	22	149.3%	4.2	1.1	A
	Subtotal	340	442	129.9%	5.9	1.0	A
WB	Left Turn	20	22	112.0%	17.6	5.1	B
	Through	348	428	123.1%	5.3	0.9	A
	Right Turn	7	8	108.6%	4.3	2.8	A
	Subtotal	375	458	122.2%	5.8	0.9	A
Total		767	971	126.6%	6.2	0.7	A

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	63	79	125.7%	30.5	5.1	C
	Through	89	97	108.8%	13.6	3.6	B
	Right Turn	86	121	140.5%	4.0	0.5	A
	Subtotal	238	297	124.7%	14.3	2.6	B
SB	Left Turn	46	55	119.1%	28.8	6.6	C
	Through	51	60	117.6%	15.3	6.4	B
	Right Turn	11	12	112.7%	2.8	1.8	A
	Subtotal	108	127	117.8%	20.0	5.8	B
EB	Left Turn	7	8	120.0%	32.2	18.7	C
	Through	208	270	129.6%	18.7	1.9	B
	Right Turn	30	37	122.7%	9.3	3.7	A
	Subtotal	245	315	128.5%	17.9	1.7	B
WB	Left Turn	79	99	125.1%	33.0	3.8	C
	Through	214	256	119.6%	16.2	3.0	B
	Right Turn	66	81	122.4%	5.0	0.7	A
	Subtotal	359	436	121.3%	17.9	1.7	B
Total		950	1,174	123.6%	17.2	1.8	B

Intersection 37 **3rd Street-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	12	193.3%	11.6	8.7	B
	Through	4	6	160.0%	11.1	8.0	B
	Right Turn	12	19	160.0%	2.5	0.7	A
	Subtotal	22	37	169.1%	7.7	2.9	A
SB	Left Turn	36	40	111.1%	13.9	4.0	B
	Through	11	13	116.4%	16.3	12.5	B
	Right Turn	11	9	83.6%	2.3	1.5	A
	Subtotal	58	62	106.9%	13.1	2.1	B
EB	Left Turn	9	14	151.1%	19.9	8.9	B
	Through	186	228	122.4%	6.7	2.3	A
	Right Turn	2	2	120.0%	1.4	1.8	A
	Subtotal	197	244	123.7%	7.7	1.9	A
WB	Left Turn	12	21	173.3%	17.1	8.1	B
	Through	286	388	135.8%	6.7	2.2	A
	Right Turn	26	34	130.8%	3.9	2.2	A
	Subtotal	324	443	136.8%	7.0	2.1	A
Total		601	786	130.8%	7.8	1.5	A

Intersection 36 **5th St/Tower Bridge Gateway-I-80 EB On-ramp** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	22	129.4%	31.2	9.1	C
	Through	136	169	124.1%	36.0	5.2	D
	Right Turn	42	51	121.0%	4.2	0.8	A
	Subtotal	195	242	123.9%	28.6	4.4	C
SB	Left Turn	27	36	133.3%	7.9	4.6	A
	Through	110	140	126.9%	17.1	2.8	B
	Right Turn	18	26	144.4%	10.4	6.7	B
	Subtotal	155	202	130.1%	14.5	1.9	B
EB	Left Turn	29	40	137.9%	51.1	7.2	D
	Through	128	155	120.9%	34.3	5.0	C
	Right Turn	23	26	114.8%	13.9	9.0	B
	Subtotal	180	221	122.9%	34.8	4.5	C
WB	Left Turn	51	69	134.9%	46.4	7.2	D
	Through	204	268	131.6%	37.7	4.9	D
	Right Turn	48	64	133.3%	5.7	1.5	A
	Subtotal	303	401	132.4%	34.1	2.0	C
Total		833	1,066	127.9%	29.3	1.5	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	79	75	94.7%	3.9	1.4	A
	Through	535	535	100.0%	3.3	0.4	A
	Right Turn	9	10	106.7%	0.9	1.0	A
	Subtotal	623	619	99.4%	3.4	0.2	A
EB	Left Turn						
	Through	40	37	92.0%	21.1	5.4	C
	Right Turn	7	8	114.3%	4.5	3.5	A
	Subtotal	47	45	95.3%	18.1	4.0	B
WB	Left Turn	11	11	101.8%	23.6	9.4	C
	Through	19	28	149.5%	23.8	5.8	C
	Right Turn						
	Subtotal	30	40	132.0%	23.7	5.3	C
Total		700	704	100.5%	5.4	0.4	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	80	76	94.5%	2.7	0.9	A
	Through	467	477	102.2%	3.0	0.6	A
	Right Turn	6	2	40.0%	0.2	0.5	A
	Subtotal	553	555	100.4%	3.0	0.5	A
EB	Left Turn						
	Through	55	52	93.8%	21.7	3.0	C
	Right Turn	8	8	95.0%	3.0	3.6	A
	Subtotal	63	59	94.0%	19.6	2.8	B
WB	Left Turn	7	5	74.3%	20.5	16.2	C
	Through	27	29	108.1%	20.6	7.2	C
	Right Turn						
	Subtotal	34	34	101.2%	21.1	6.8	C
Total		650	649	99.8%	5.4	0.9	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	75	11	150	28	150	36	0%	0%
	Through/Right	2,725	50	12	100	12	100	17	0%	0%
SB	Left Turn	325	75	20	125	34	125	31	0%	0%
	Left/Through	1,500	100	15	150	28	150	24	0%	0%
	Right Turn	325	50	10	100	24	100	28	0%	0%
WB	Left Turn	1,275	75	13	125	24	125	27	0%	0%
	Through	275	50	10	75	25	75	31	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	14	175	27	175	32	0%	0%
	Through	325	25	7	50	24	50	28	0%	0%
NB	Left/Through	325	75	20	100	36	100	36	0%	0%
	Right Turn	1,175	50	8	75	20	100	28	0%	0%
WB	Through	225	75	8	125	21	150	41	0%	0%
0										

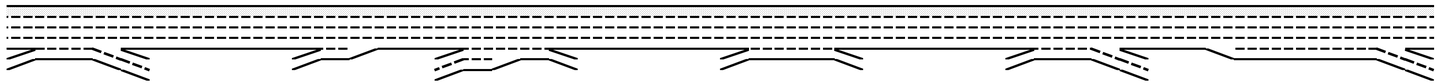
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	75	14	125	23	125	21	0%	0%
	Through	600	50	12	100	22	100	23	0%	0%
	Through/Right	600	75	8	125	23	125	29	0%	0%
NB	Right Turn	1,075	25	3	50	12	25	16	0%	0%
NE	Shared	1,025	75	9	100	22	100	25	0%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
	Right Turn	350	25	10	75	15	75	18	0%	0%
	Right Turn	1,025	25	0	25	0	25	0	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10

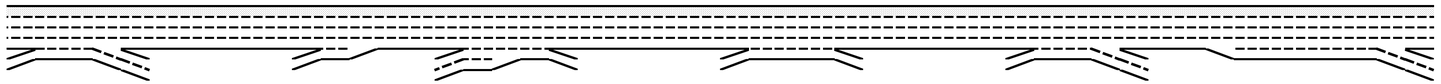


Key

<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	4,609	4,958	4,958	5,480	5,749	5,749	5,616	5,616	5,401	5,401
On Ramp Volume	578		522	573		473		570		
Off Ramp Volume	229			304		606		785		1,747
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	4,609	4,958	4,958	5,480	5,749	5,749	5,616	5,616	5,401	5,401
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,367	5,773	5,773	6,381	6,694	6,694	6,540	6,540	6,289	6,289
Flow (pcphpl)	1,342	1,443	1,443	1,595	1,674	1,674	1,635	1,635	1,572	1,258
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.57	0.61	0.61	0.68	0.71	0.71	0.70	0.70	0.67	0.54
Speed (mph)	65.0	65.0	65.0	64.5	63.9	63.9	64.2	64.2	64.6	65.0
Density (pcphpl)	20.6	22.2	22.2	24.7	26.2	26.2	25.5	25.5	24.3	19.4
LOS	C	C	C	C	D	D	C	C	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	6,049		6,389	7,027		7,310		7,205		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.51		0.68	0.60		0.62		0.61		
Flow Rate (pcphpl)	1,210		1,597	1,405		1,462		1,441		
Speed (mph)	65.0		64.4	65.0		64.9		65.0		
Density (pcphpl)	18.6		24.8	21.6		22.5		22.2		
LOS	C		C	C		C		C		

Location	1	2	3	4	5	6	7	8	9	10



Key

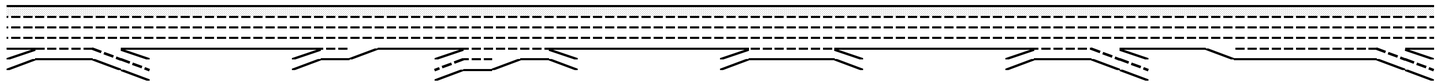
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	5,779			6,673		6,656		6,348		4,338
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.61			0.71		0.71		0.68		0.46
Flow Rate (pcphpl)	1,445			1,668		1,664		1,587		1,084
Speed (mph)	65.0			64.0		64.0		64.5		65.0
Density (pcphpl)	22.2			26.1		26.0		24.6		16.7
LOS	C			D		C		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

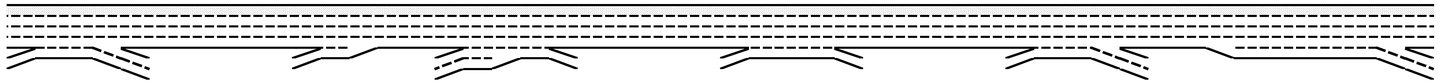
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	578		522	573		473		570		
PHF	0.86		0.86	0.9		0.78		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	682		616	646		616		665		
Flow Rate (pcphpl)	682		616	323		616		665		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.32		0.29	0.15		0.29		0.32		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

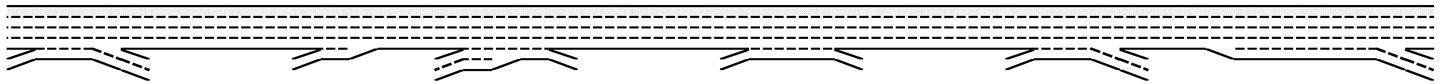
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	229			304		606		785		1,747
PHF	0.86			0.87		0.94		0.93		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	270			355		654		857		1,951
Flow Rate (pcphpl)	135			355		654		428		976
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.06			0.17		0.31		0.20		0.42
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			5,773							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.141							
v_{12} (pcph)			813							
v_3 (pcph)										
v_{34} (pcph)			4,960							
v_{12a} (pcph)			2,309							
v_{R12a} (pcph)			2,925							
Speed Index			0.36							
Area Speed			56.8							
Outer Lanes Volume			1,732							
Outer Lanes Speed			60.6							
Segment Speed			58.8							
v/c ratio			0.64							
Density			25.3							
LOS			C							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

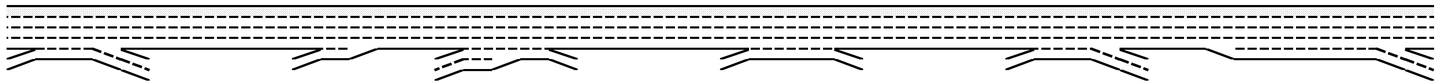
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										22.0
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

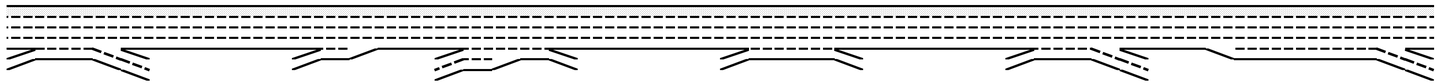
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

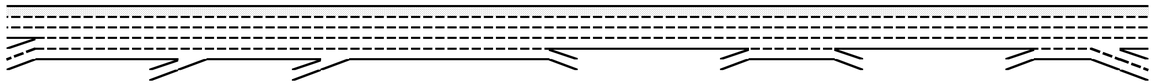
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.61	0.64		0.71		0.70		0.67	
Segment Density		22.2	25.3		26.2		25.5		24.3	22.0
Segment LOS		C	C		D		C		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

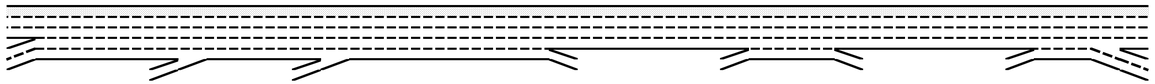


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	2,088	3,350	3,616	3,765	3,457	3,457	3,581	3,581
On Ramp Volume	1,262	266	149			509		323
Off Ramp Volume				308		385		448
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	2,088	3,350	3,616	3,765	3,457	3,457	3,581	3,581
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	2,431	3,901	4,211	4,384	4,025	4,025	4,170	4,170
Flow (pcphpl)	810	780	842	877	1,006	1,006	1,042	1,042
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.34	0.33	0.36	0.37	0.43	0.43	0.44	0.44
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	12.5	12.0	13.0	13.5	15.5	15.5	16.0	16.0
LOS	B	B	B	B	B	B	B	B
Calculate Operations for Segment GP Lanes								
Flow (pcph)	4,028	4,198	4,381			4,600		4,601
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.34	0.36	0.37			0.39		0.39
Flow Rate (pcphpl)	806	840	876			920		920
Speed (mph)	65.0	65.0	65.0			65.0		65.0
Density (pcphpl)	12.4	12.9	13.5			14.2		14.2
LOS	B	B	B			B		B

Location	1	2	3	4	5	6	7	8



Key

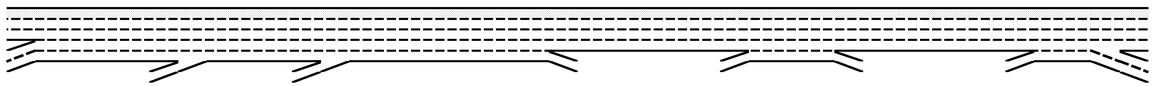
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				4,052		4,170		4,073
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.43		0.44		0.43
Flow Rate (pcphpl)				1,013		1,043		1,018
Speed (mph)				65.0		65.0		65.0
Density (pcphpl)				15.6		16.0		15.7
LOS				B		B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

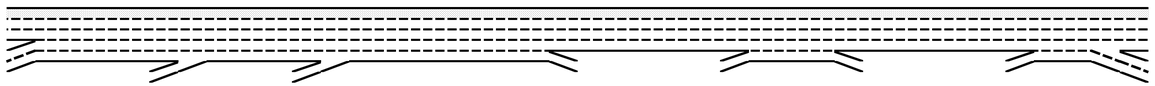
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	1,262	266	149			509		323
PHF	0.83	0.91	0.89			0.9		0.76
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	1,597	297	170			574		431
Flow Rate (pcphpl)	798	297	170			574		431
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.35	0.14	0.08			0.27		0.21

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

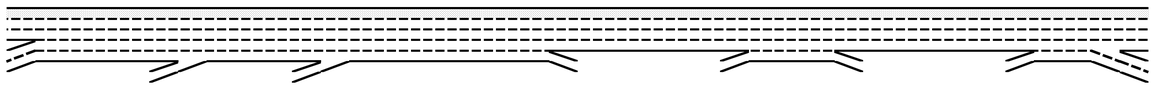
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				308		385		448
PHF				0.94		0.91		0.86
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				333		429		529
Flow Rate (pcphpl)				333		429		264
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.16		0.20		0.13
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		3,043	3,284					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.205	0.197					
v_{12} (pcph)		625	646					
v_3 (pcph)								
v_{34} (pcph)		2,417	2,639					
v_{12a} (pcph)		1,217	1,314					
v_{R12a} (pcph)		1,514	1,484					
Speed Index		0.33	0.31					
Area Speed		57.4	57.8					
Outer Lanes Volume		913	985					
Outer Lanes Speed		63.5	63.3					
Segment Speed		60.6	60.8					
v/c ratio		0.33	0.32					
Density		16.5	15.2					
LOS		B	B					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

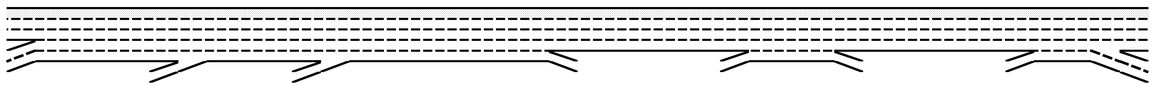
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				3,946				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.646				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				1,908				
v_3 (pcph)								
v_{34} (pcph)				2,038				
v_{12a} (pcph)				1,908				
Speed Index				0.33				
Area Speed				57.5				
Outer Lanes Volume				1,019				
Outer Lanes Speed				71.2				
Segment Speed				63.8				
v/c ratio				0.43				
Density				13.9				
LOS				B				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

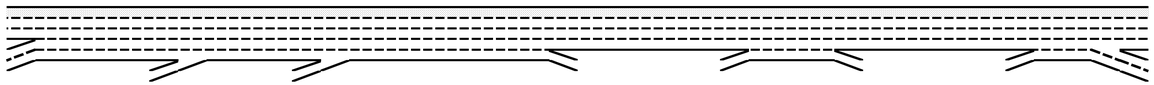
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

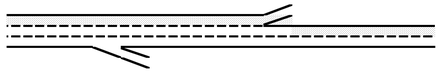


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.34	0.33	0.32	0.43	0.43		0.44	
Segment Density	12.4	16.5	15.2	13.9	15.5		16.0	
Segment LOS	B	B	B	B	B		B	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

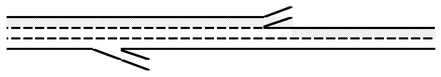


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,713	1,531	1,253
On Ramp Volume			
Off Ramp Volume	182	278	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,713	1,531	1,253
PHF	0.77	0.77	0.77
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,258	2,018	1,652
Flow (pcphpl)	753	673	826
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.32	0.28	0.34
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	11.6	9.6	11.8
LOS	B	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

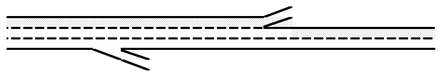


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,018	1,652	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.29	0.34	
Flow Rate (pcphpl)	673	826	
Speed (mph)	65.0	70.0	
Density (pcphpl)	10.3	11.8	
LOS	A	B	

Location	1	2	3

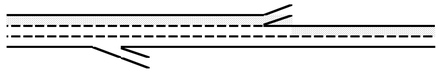


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

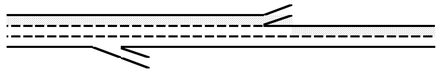


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	182	278	
PHF	0.77	0.77	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	240	366	
Flow Rate (pcphpl)	240	366	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.18	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		240	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

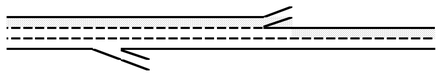


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,258		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.693		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.693		
v_{12} (pcph)	1,637		
v_3 (pcph)	621		
v_{34} (pcph)			
v_{12a} (pcph)	1,637		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	621		
Outer Lanes Speed	71.3		
Segment Speed	60.9		
v/c ratio	0.37		
Density	17.0		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

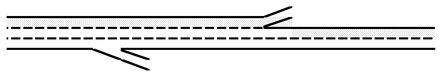


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

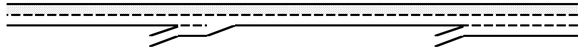
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.37	0.28	0.34
Segment Density	17.0	9.6	11.8
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: Pre-Event

Location	1	2	3	4

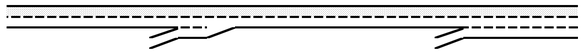


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	937	937	1,019	1,019
On Ramp Volume		82		139
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	937	937	1,019	1,019
PHF	0.77	0.77	0.77	0.77
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	1,235	1,235	1,343	1,343
Flow (pcphpl)	618	618	672	448
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.27	0.26	0.29	0.19
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	11.2	9.5	10.3	6.9
LOS	B	A	A	A
Operations for Segment GP Lanes				
Flow (pcph)		1,343		1,526
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.29		0.22
Flow Rate (pcphpl)		672		509
Speed (mph)		65.0		65.0
Density (pcphpl)		10.3		7.8
LOS		A		A

Location	1	2	3	4

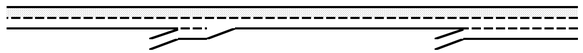


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

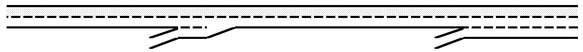


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		82		139
PHF		0.77		0.77
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		108		183
Flow Rate (pcphpl)		108		183
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.05		0.09

Location	1	2	3	4

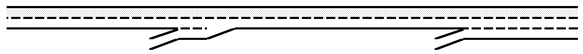


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		1,235		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		1,235		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		1,235		
v_{R12a} (pcph)		1,343		
Speed Index		0.27		
Area Speed		58.8		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.8		
v/c ratio		0.29		
Density		11.2		
LOS		B		

Location	1	2	3	4

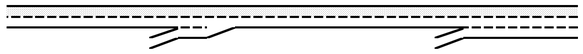


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

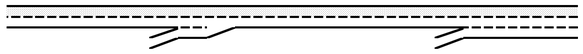


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

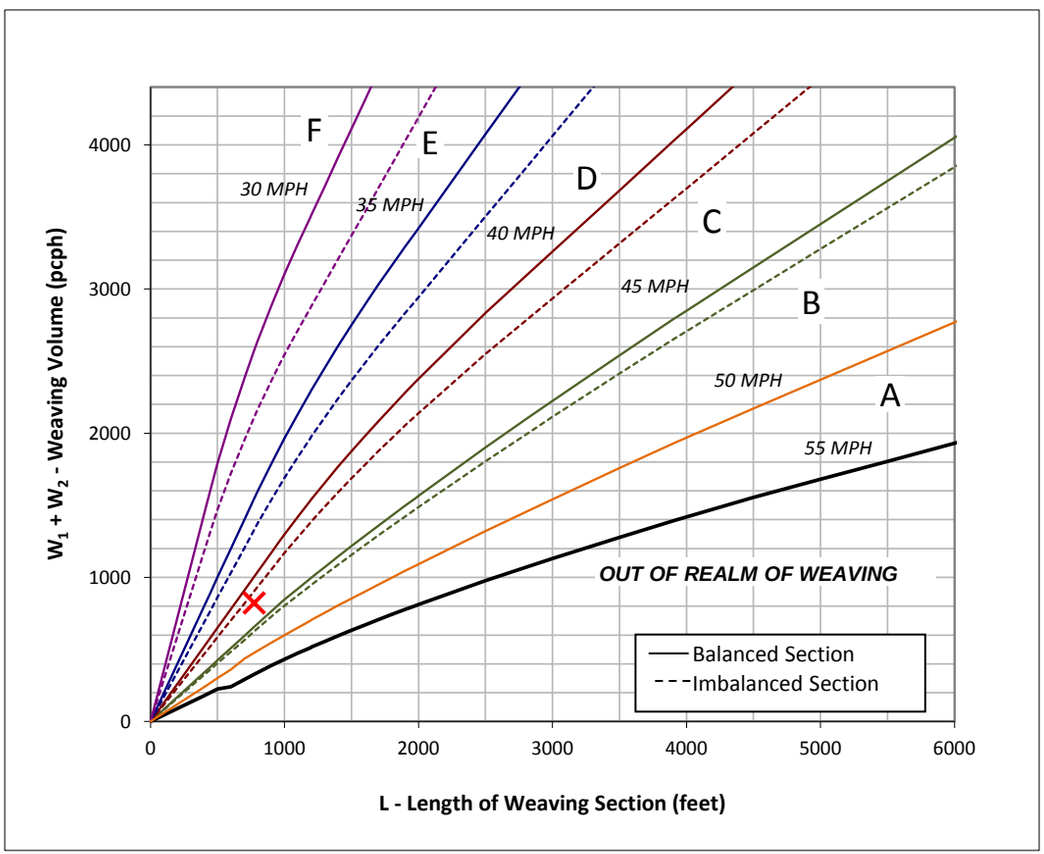
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.27	0.29	0.29	0.22
Segment Density	11.2	11.2	10.3	7.8
Segment LOS	B	B	A	A
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,187	Volume (vph)*	578	Volume (vph)*	229
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,436	Volume (pcph)	590	Volume (pcph)	234



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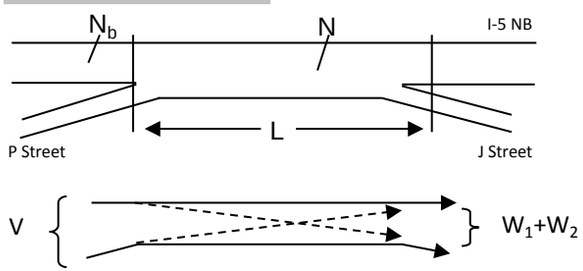


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	42.6
4. Weaving Intensity Factor (k)	2.27
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,146
6. Level of Service (LOS)	B

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

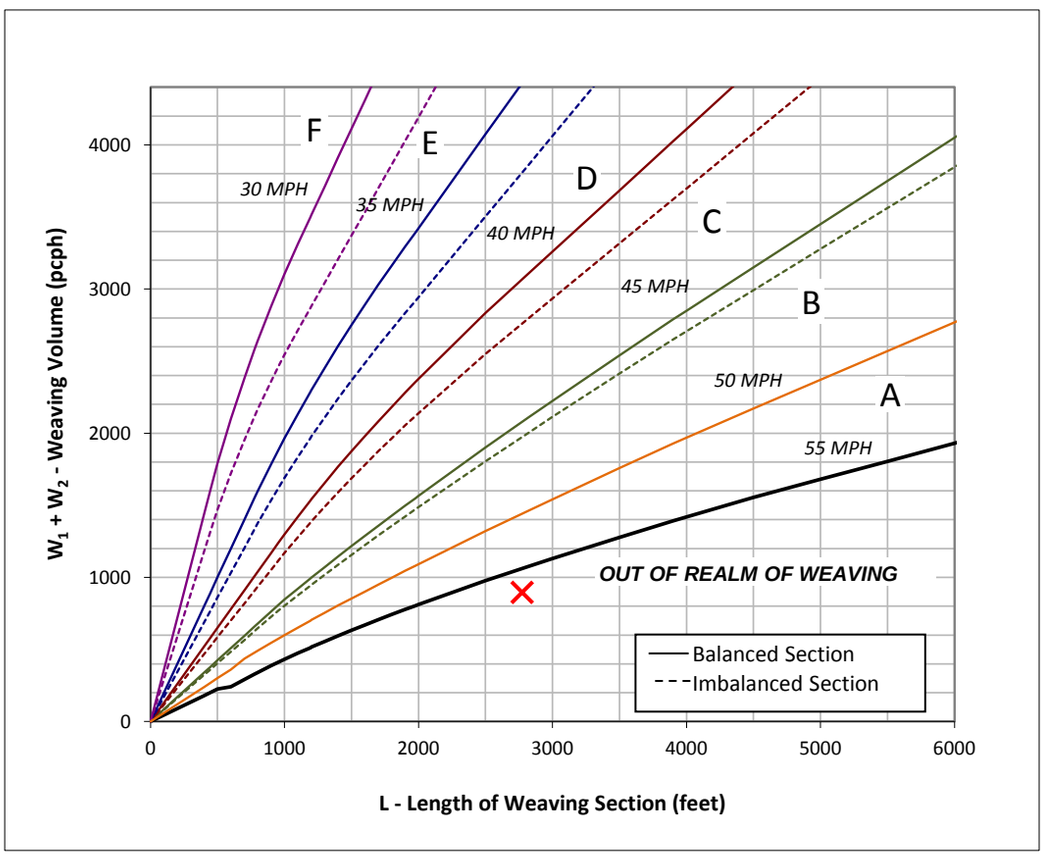
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,053	Volume (vph)*	573	Volume (vph)*	304
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,344	Volume (pcph)	584	Volume (pcph)	310



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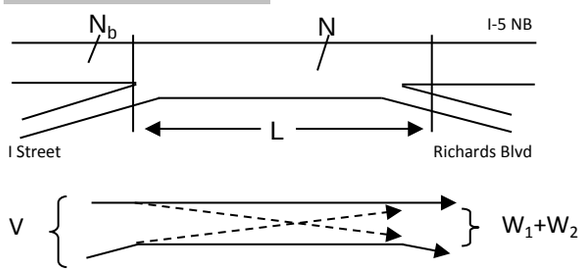


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **55.1**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,269**
6. Level of Service (LOS) **C**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

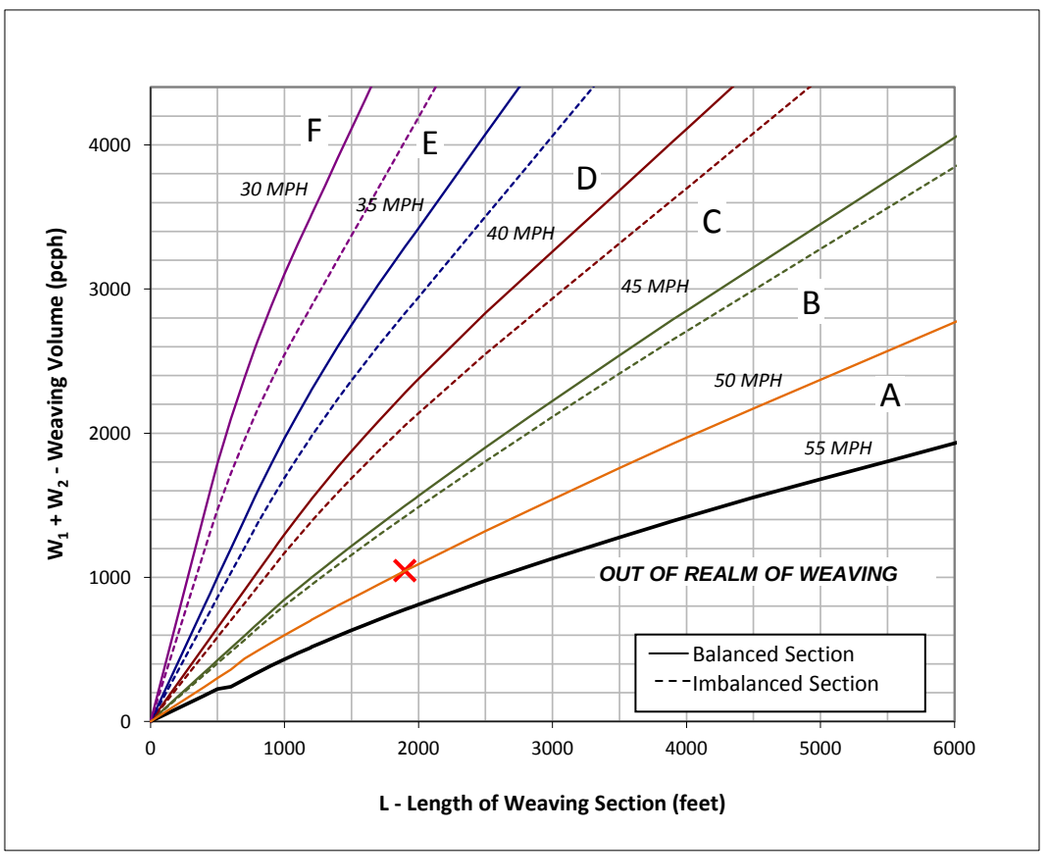
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,222	Volume (vph)*	450	Volume (vph)*	577
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,521	Volume (pcph)	459	Volume (pcph)	589



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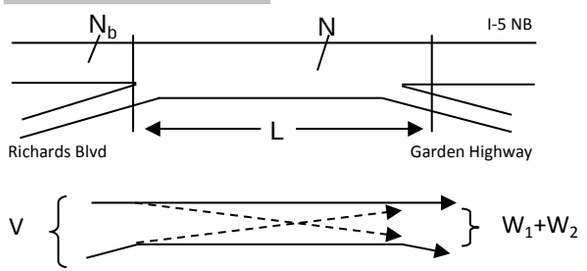


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**50 MPH** and **55 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	49.9
4. Weaving Intensity Factor (k)	0.98
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,302
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

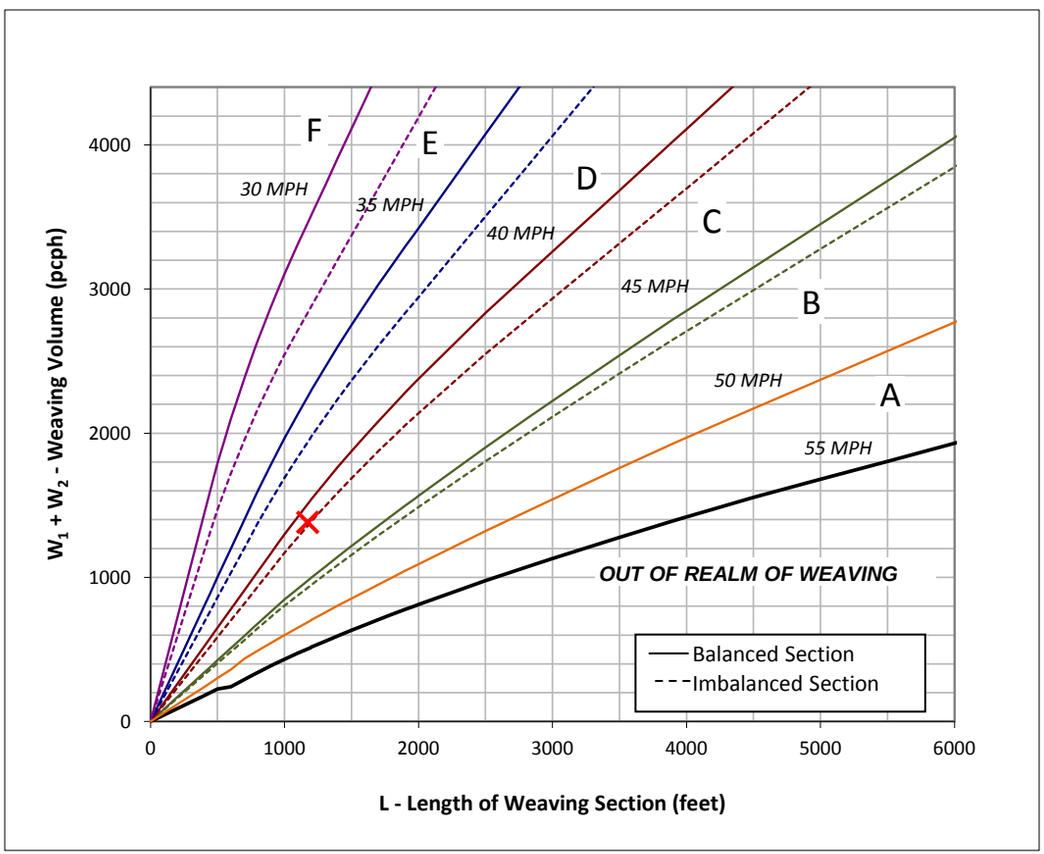
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,186	Volume (vph)*	570	Volume (vph)*	785
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,483	Volume (pcph)	581	Volume (pcph)	801



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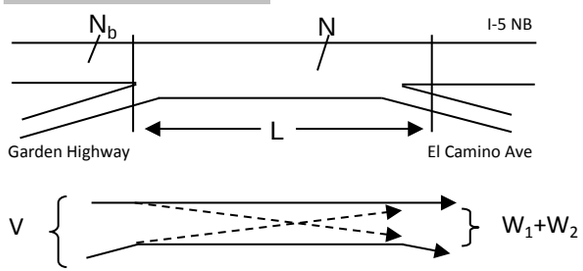


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.2
4. Weaving Intensity Factor (k)	2.42
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,461
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

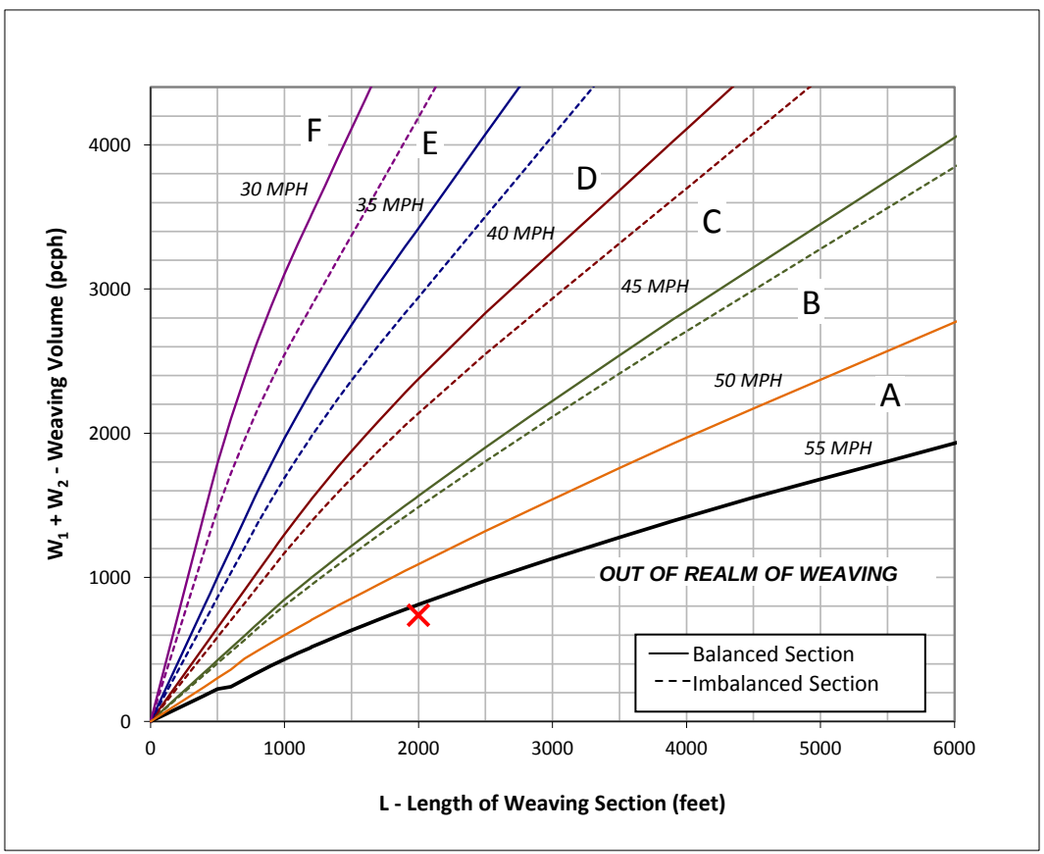
Data Input

Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

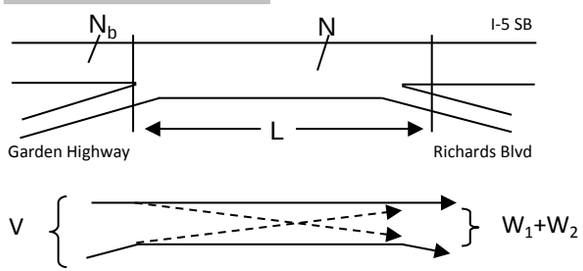
Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,966	Volume (vph)*	448	Volume (vph)*	274
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,156	Volume (pcph)	457	Volume (pcph)	279

Project Information

Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	54.5
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	831
6. Level of Service (LOS)	A

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

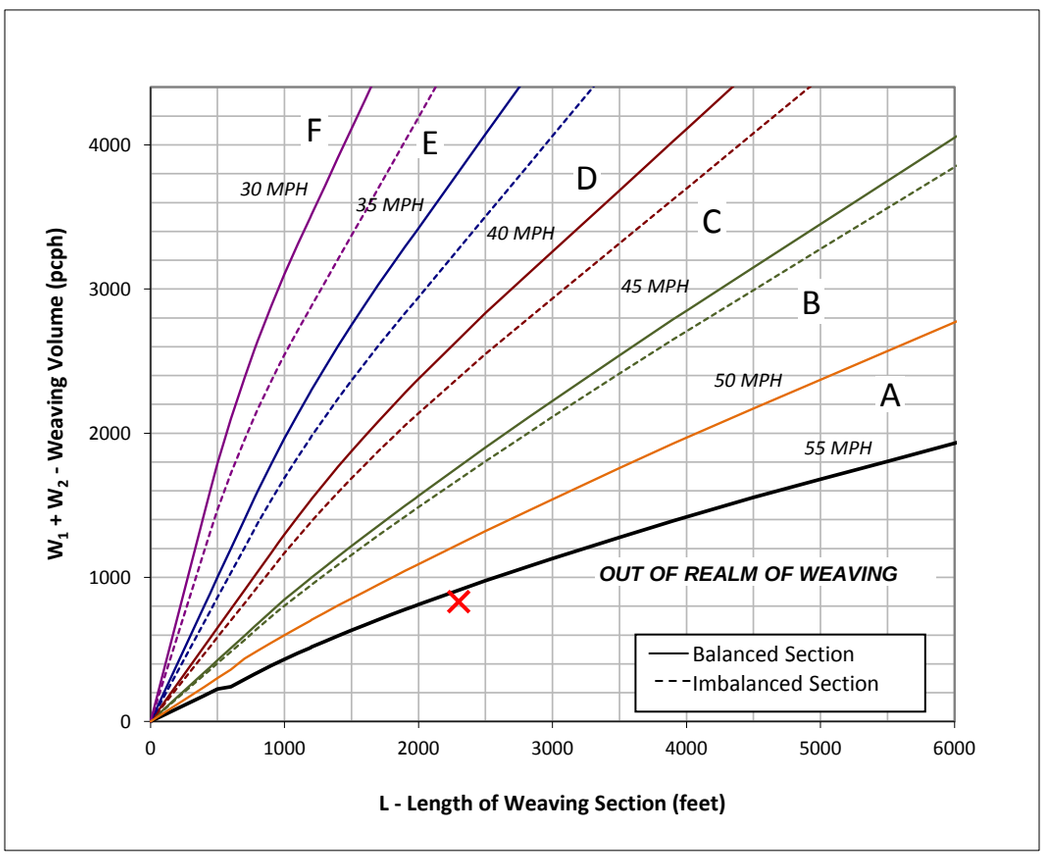
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

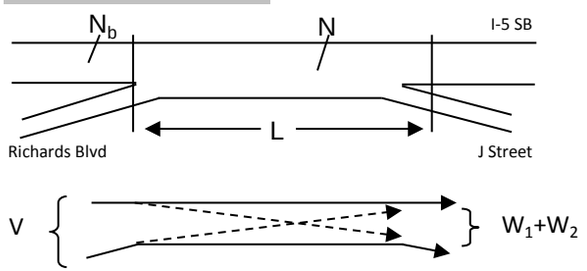
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Existing Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,904	Volume (vph)*	374	Volume (vph)*	440
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,091	Volume (pcph)	381	Volume (pcph)	449



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	53.7
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	818
6. Level of Service (LOS)	A

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

APPENDIX J.1.3:

Sidewalk Calculation Example

Appendix J.1 .3

The following example is intended to put to illustrate pedestrian LOS calculations and what an LOS C versus D versus E condition would feel like:

- Consider a 5-foot sidewalk that experiences a flow of two persons walking side by side every 2-seconds during the peak 15-minute period. Assuming a 1.5-foot shy area for the curb, the pedestrian flow rate would be:
    - 900 pedestrians during peak 15 minutes (1 person per second for 900 seconds) / (15 * 3.5 feet) = 17.1 pedestrians per minute per foot, which would correspond to LOS E.
    - If that sidewalk was 10 feet wide (with an effective 8.5-foot width), the pedestrian flow rate would be 7.1 pedestrians per minute per foot, which would correspond to LOS C.

APPENDIX J.1.4:

Technical Memorandums 1-6

FEHR PEERS

REVISED FINAL TECHNICAL MEMORANDUM #1

Date: December 4, 2015

To: Pelle Clarke & Samar Hajeer – City of Sacramento

From: John Gard – Fehr & Peers

Subject**: **Assumed Roadways under Baseline Conditions for Railyards / Kaiser / MLS EIR

RS15-3374

Attached to this memorandum are figures, which display the proposed roadways that would be constructed within the Railyards Specific Plan for each of the four scenarios that are being analyzed under baseline conditions.

Figure 1 shows that Railyards Boulevard would open to traffic between 7th Street and Jibboom Street under 'no project' conditions. Additionally, 5th and 6th Streets would extend northerly as two-lane, two-way streets from downtown to connect with Railyards Boulevard. Finally, G Street would extend westerly as a two-lane, two-way street, creating new intersections with 5th and 6th Streets. F Street would also be extended westerly under the 5th Street and 6th Street bridges. This extension would not connect to any other roadways under baseline no project conditions.

Figure 1 also includes a note indicating that 5th Street would be modified at H Street to permit southbound through travel under all baseline scenarios.

Figure 2 shows the assumed roadway connections with the proposed Railyards Specific Plan Update. This figure indicates that all proposed street improvements would occur within the Specific Plan area. No widenings, extensions, or other improvements outside the Plan area are currently proposed. This figure includes a note indicating that the project would dedicate right-of-way to allow for the future widening of 7th Street south of Railyards Boulevard to four lanes, but would not construct this improvement as part of the project's planned circulation system.

Figure 3 shows the assumed roadway connections with the Kaiser Permanente Medical Center. As shown, construction of the Medical Center would result in the extension of Bercut Drive southerly to Railyards Boulevard and the construction of South Park Street between Bercut Drive and 5th Street.

Figure 4 shows the assumed roadway connections with the MLS stadium. As shown, construction of the Stadium would result in the following street improvements:

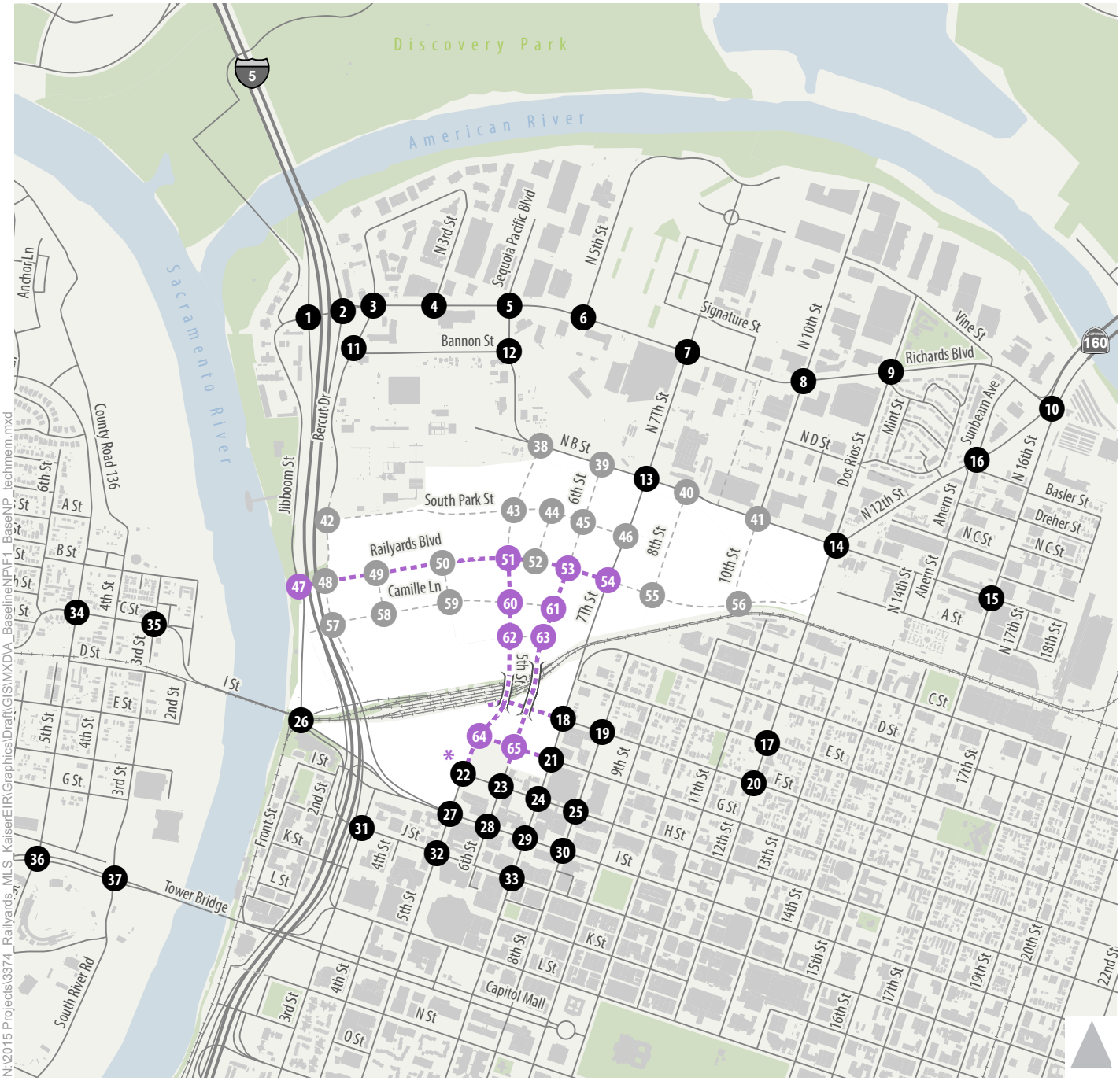
- Extend Railyards Boulevard easterly from 7th Street to 10th Street.

- Extend 8th Street between Railyards Boulevard and North B Street.
- Extend 10th Street partially north of Railyards Boulevard, but do not connect to North B Street.

Please note that we have been directed by the City to not assume the extension of Railyards Boulevard easterly from 10th Street to 12th Street as part of this scenario.

Kimley-Horn has provided us with detailed intersection geometrics for use in analyzing all on-site intersections. We will be using the City of Sacramento *Project Delivery Manual* (2007) as guidance for selection of signal phasings and timings at these intersections. We will have in-depth coordination with City staff regarding these inputs.

Please do not hesitate to call or email me with any questions or comments.



Study Intersections

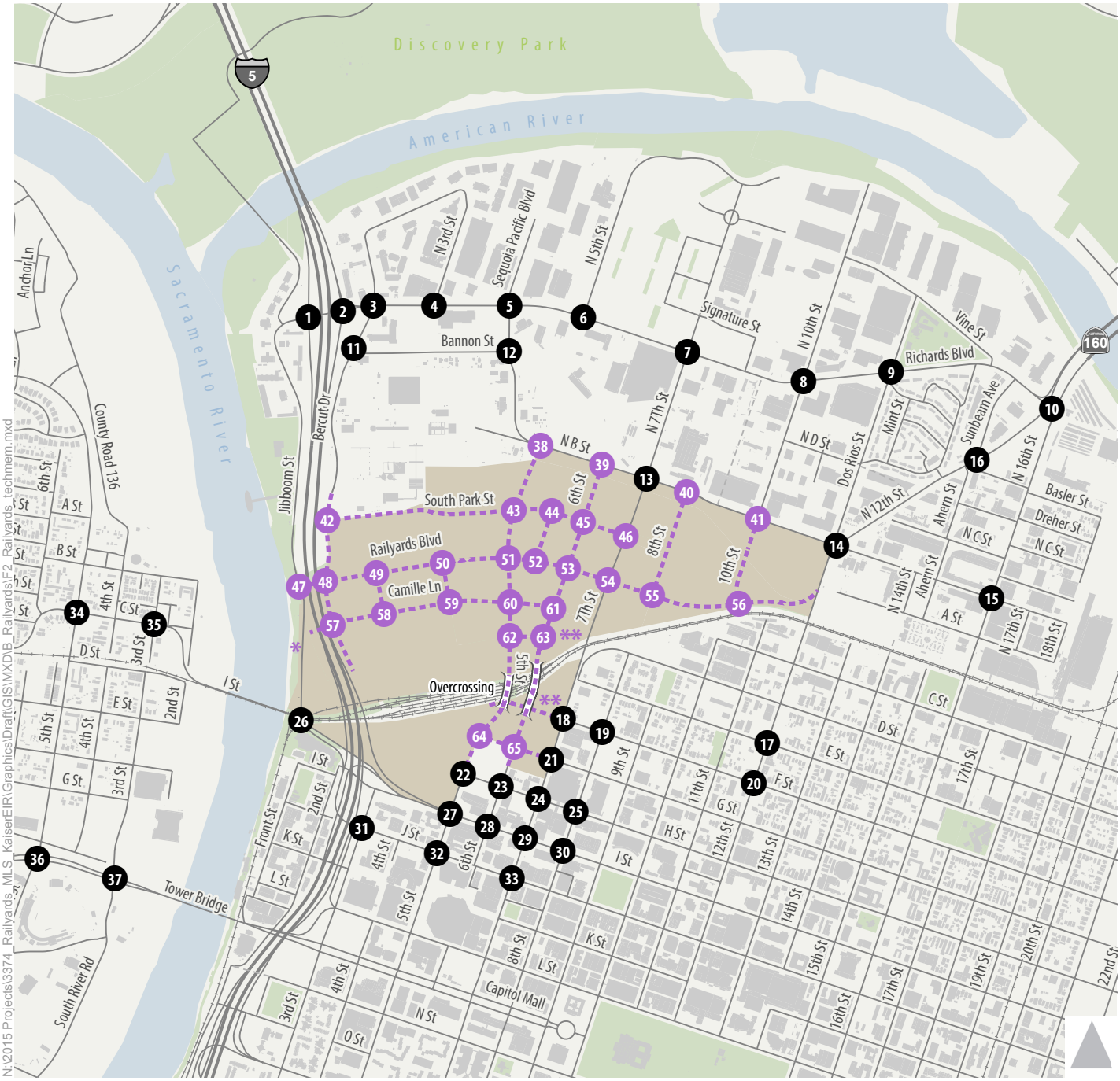
- Baseline No Project
- Existing
- Future Intersection within Railyards SP Update

* All baseline scenarios assume southbound through travel is permitted on 5th St. at H St.

- Baseline No Project Roadway
- Future Planned Roadway within Railyards SP Update

Figure 1

Baseline No Project Roadway Network



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Study Intersections

- Baseline Plus Railyards SP Update
- Existing
- Future Intersection within Railyards SP Update

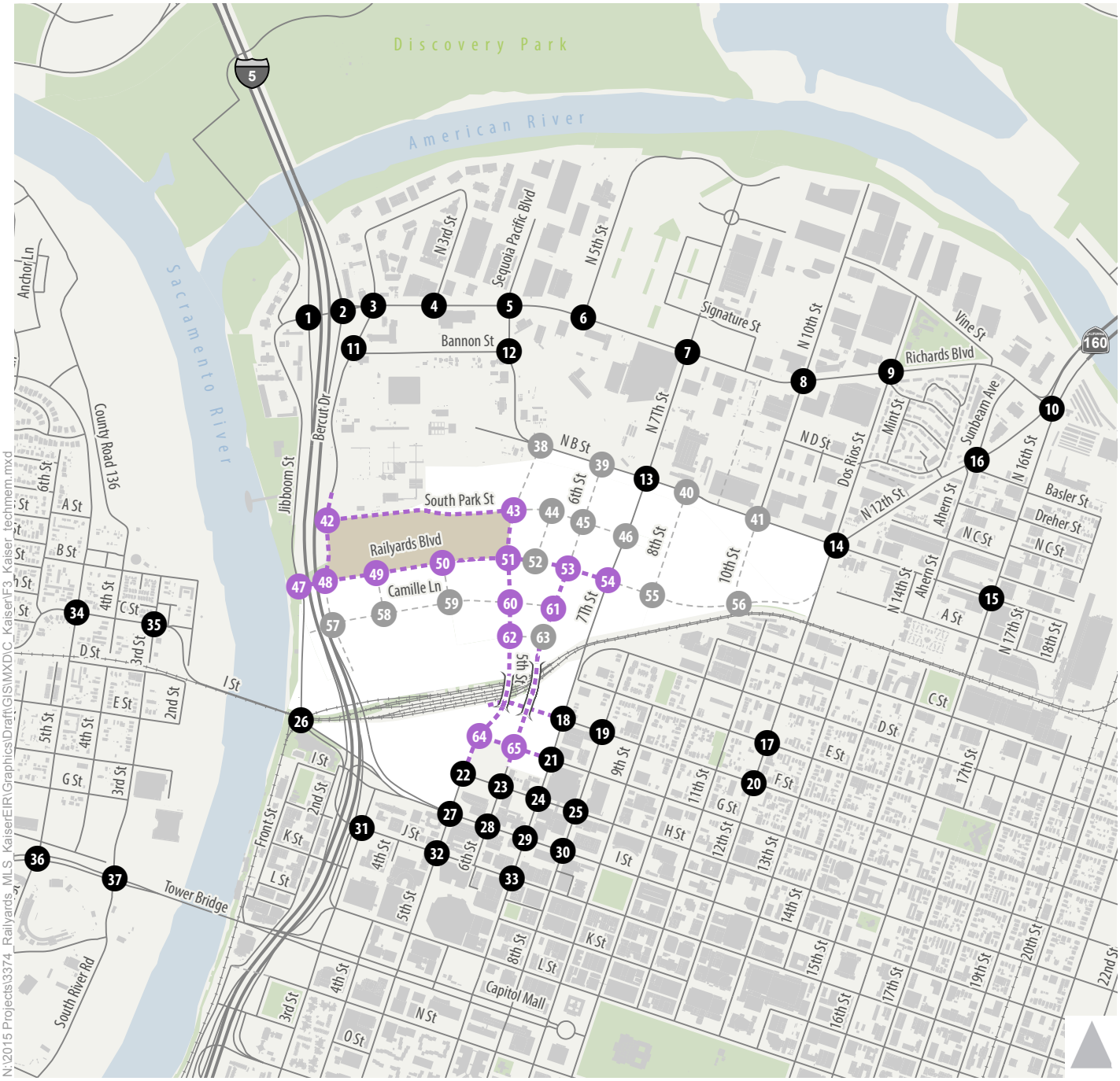
* Railyards SP Update would remove connection of Jibboom Street to I Street.

** Project will dedicate ROW, but not construct four-lane widening of 7th Street under Baseline Conditions.

- Project Roadway Assumed Under Baseline Plus Railyards SP Update
- Future Planned Roadway within Railyards SP Update
- Railyards Specific Plan Update

Figure 2

Baseline Plus Railyards Specific Plan (SP) Update Roadway Network



Study Intersections

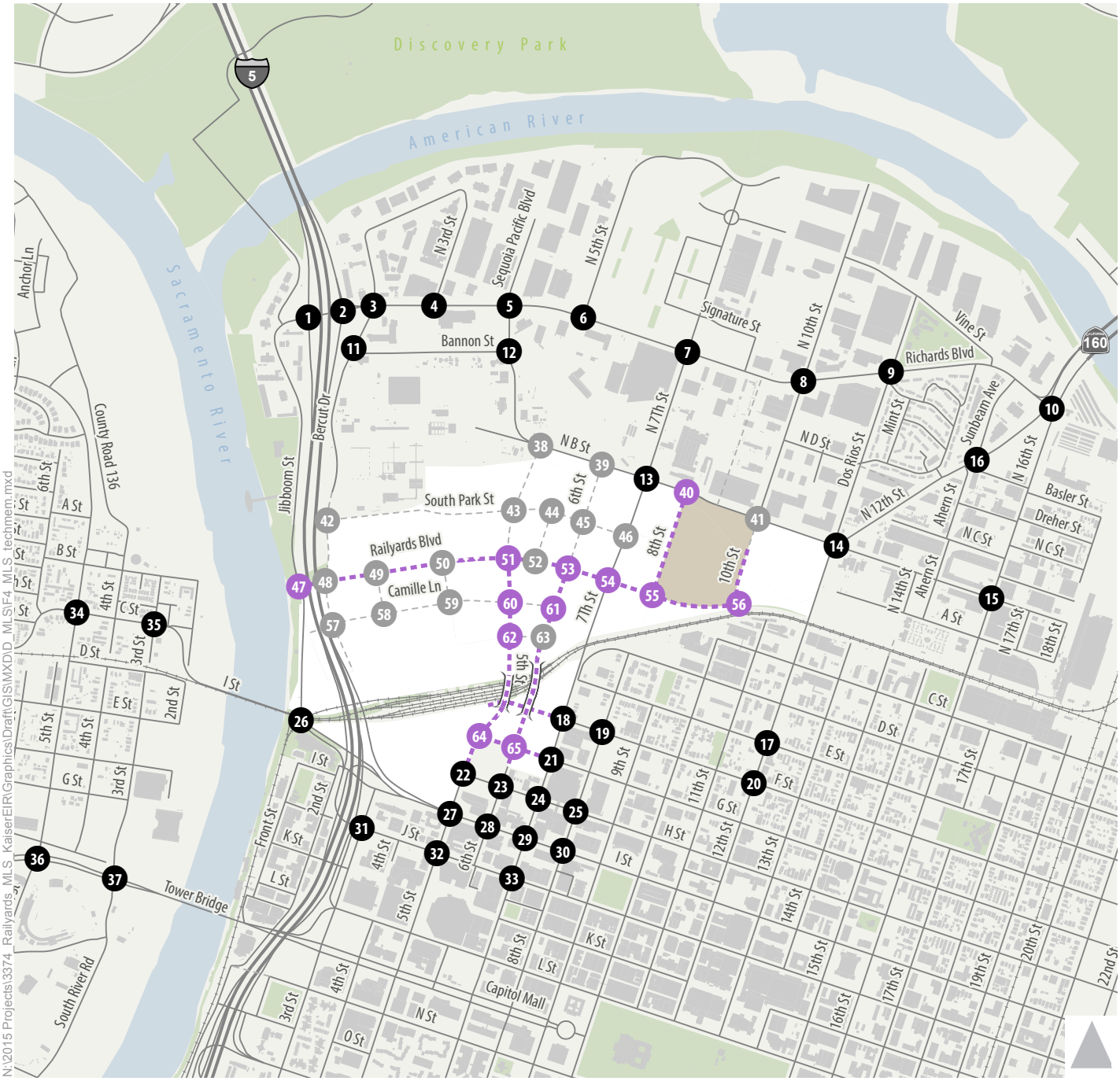
- Baseline Plus Medical Center
- Existing
- Future Intersection within Railyards SP Update

- Baseline Roadway Assumed with Medical Center
- Future Planned Roadway within Railyards SP Update

- Medical Center

Figure 3

Baseline Plus Medical Center Roadway Network



Study Intersections

- Baseline Plus Stadium
- Existing
- Future Intersection within Railyards SP Update

- Baseline Roadway Assumed with Stadium
- Future Planned Roadway within Railyards SP Update
- Stadium

Figure 4

Baseline Plus Stadium Roadway Network

FEHR PEERS

FINAL TECHNICAL MEMORANDUM #2

Date: December 22, 2015

To: Pelle Clarke & Samar Hajeer – City of Sacramento

From: John Gard – Fehr & Peers

Subject*: *Travel Characteristics of Proposed Kaiser Permanente Medical Center in Railyards Specific Plan

RS15-3374

This memorandum presents the anticipated travel characteristics of the Kaiser Permanente Medical Center ("KP Medical Center") project to be located north of Railyards Boulevard between Bercut Drive and 5th Street in the Railyards Specific Plan. This evaluation is applicable primarily to the "Baseline Plus KP Medical Center" scenario. However, portions of the analysis presented herein will also be applicable to cumulative conditions.

This memorandum is organized into the following sections:

I. Project Land Uses
II. Trip Generation Characteristics
III. Trip Distribution Characteristics
IV. Expected Mode Split
V. Vehicle Trip Assignment

I. Project Land Uses

Table 1 displays the various land uses, employment levels, and other relevant information associated with the proposed Medical Center.

II. Trip Generation Characteristics

The *Trip Generation Manual*, 9th Edition (Institute of Transportation Engineers, 2012) contains the following two land use categories that may be applicable to the project:

- Hospital (LU Code 610) – an institution that provides medical or surgical care and overnight accommodations. This category does not include medical clinics or nursing homes, which are covered elsewhere in the *Manual*.
- Medical-Dental Office Building (LU Code 720) – a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care.

The *Trip Generation Manual* does not include a 'regional medical center' category consisting of both hospital and medical-office space. Accordingly, data from this resource may be helpful in estimating trips from the proposed project, but cannot be used directly because internalization of trips between the two use types is not known.

Table 1 – Proposed KP Medical Center Land Use Information	
Type	Amount
Land Use [1]	
Hospital (non HSB)	658,000 sq. ft.
Hospital Support Building (HSB)	210,000 sq. ft.
Medical-Office	300,000 sq. ft.
CUP [2]	60,000 sq. ft.
Total (excluding CUP)	1,228,000 sq. ft.
Employees / Providers / Beds [3]	
Total Employees	2,941 existing (from Morse Facility), 4,247 total future employees
Health Care Providers	299 (1,705 sq. ft. of MOB space per provider)
Licensed Beds	420

Notes:
1. Buildout land uses from *Kaiser Railyards Master Plan*, Lionakis, September 17, 2015. Totals exclude square-footage associated with CUP because it consists of non-trip generating uses.
2. CUP is the central processing plant that consists of mechanical and electrical equipment. It generates almost no traffic. It is included in the square footage totals, but excluded from trip calculations.
3. Per November 11th and 16th emails from Matthew Miller, Kaiser's Director of Program Management.

TBD = To be determined.

According to Kaiser staff, the Hospital Support Building (HSB) area offers specialty medical care. It houses physicians and support services needed to support the hospital, but that aren't required to be located within the hospital. Given this definition, HSB is considered to be a medical-office type use from a trip generation perspective.

The proposed Medical Center would consist 1,168,000 square feet of trip generating land uses (the CUP is excluded). That square footage is separated into 658,000 square feet of hospital (56 percent) and 510,000 square feet of medical-office (44 percent).

Trip Generation of Kaiser Medical Centers in Southern California [1]

Kaiser representatives provided land use and traffic count data from three comparable medical centers in Southern California. This information is summarized in **Table 2**.

[1] We reviewed our internal files and online resources but could not find any empirical trip generation studies of the existing Kaiser Medical Centers in Roseville and South Sacramento.

Table 2 – Trip Generation of Kaiser Medical Centers in Southern California								
Facility	Ksf [1]	% Hosp. / % MOB	Vehicle Trips [2]			Trip Rates (per ksf)		
			Daily	AM Pk Hr	PM Pk Hr	Daily	AM Pk Hr	PM Pk Hr
Kaiser Irvine Medical Center	579.2	49% / 51%	10,519	926	767	18.16	1.60	1.32
Kaiser Anaheim Medical Center	551.2	47% / 53%	11,683	874	836	21.20	1.59	1.52
Kaiser Riverside Medical Center	840.8	45% / 55%	19,486	1,697	1,535	23.18	2.02	1.83
					Average	20.85	1.74	1.56

Notes:
[1] Includes hospital space, HSB space within hospital, and MOB space.
[2] Counts collected using tube counts at driveways. Results averaged for a Tuesday thru Thursday condition. At each facility, AM peak hour occurred from 8 to 9 AM and PM peak hour occurred from 4 to 5 PM.
ksf = thousand square feet.

Table 2 indicates that these facilities generated an average of about 20.85 daily vehicle trips, 1.74 AM peak hour vehicle trips, and 1.56 PM peak hour vehicle trips per thousand square feet (ksf). Individual trip rates show a strong correlation to the percentage of the campus dedicated to MOB space (i.e., trip rates increase as MOB space increases).

Trip Generation of Kaiser Medical Center on Morse Avenue in Sacramento County

We conducted traffic counts on Tuesday, October 27, 2015 at the ten (10) driveways on Cottage Avenue, Morse Avenue, and Alta Arden Expressway that serve the Kaiser Morse Avenue facility. Kaiser administrators report that October is generally one of their busier months, and actual bed/hospital room use on the count day was above average[2]. Therefore, the counts collected on this day are representative of slightly above average hospital occupancy levels.

Table 3 displays the land use totals and vehicular trip generation observed at the Kaiser Morse Avenue facility. This table indicates that the site generated about 1.8 trips per thousand square feet (ksf) during the AM peak hour and 2.0 trips per ksf during the PM peak hour.

[2] According to data provided by Matt Miller of Kaiser in an email to Brian Boxer on November 17th, the medical center had a patient census of 160 on the count day, which is greater than their average annual patient census of 150.

Table 3 – Vehicular Trip Generation of Kaiser Morse Avenue Facility							
Peak Hour [1]	Square Feet (ksf)	Vehicle Trips			Trip Rates (per ksf)		
		Inbound	Outbound	Total	Inbound	Outbound	Total
AM (8 – 9 AM)	477.43	676	183	859	1.42	0.38	1.80
PM (4 – 5 PM)	477.43	296	664	960	0.62	1.39	2.01
Pre-Event (6:30-7:30 PM)	477.43	189	266	455	0.39	0.56	0.95
Notes: [1] Counts collected from 7 to 9 AM and from 4 to 7:30 PM on Tuesday, October 27, 2015. ksf = thousand square feet.							

Kaiser representatives indicated that about 29 percent of the Morse Avenue Kaiser Facility is classified as MOB space. Kaiser representatives indicated that there are currently 214 health care providers who occupy an average of 1,350 square feet of space per provider. This represents substantially more building area than the 138,500 square feet of designated MOB space. This implies that some health care providers are using hospital space to provide outpatient services, meaning that the medical center's effective percentage of MOB space is greater than 29 percent.

Table 3 also shows trip rate data for the pre-event peak hour. Although this period is not being studied under "Baseline plus Medical Center" conditions, this period is analyzed under "Baseline Plus Railyards Specific Plan Update" conditions, in which the pre-event peak hour trip generation of the proposed Medical Center is analyzed.

The Kaiser Morse Avenue Facility trip rates were compared to published ITE rates for general reasonableness.[3] Pages 26-28 of the *Trip Generation Handbook* (Institute of Transportation Engineers, 2014) provide guidance regarding when the average rate versus fitted curve equation should be used. Based on the project's size and the data in the *Manual,* the *Trip Generation Handbook* recommends that the weighted average rates should be used instead of the fitted curve equations for each category. The following weighted average AM and PM peak hour (of the generator) trip rates are provided:

	ITE Trip Generation Rates	
	AM Peak Hour	PM Peak Hour
• Hospital:	0.96	1.16
• Medical-Office:	3.5	4.27

[3] The observed rates should not necessarily match the ITE rates perfectly for reasons cited on the previous page. However, the rates should be in the same general range.

The above trip rates can be used to develop a "blended ITE" rate that considers the relative mix of hospital versus medical-office space. The blended ITE rates are as follows:

	ITE Blended Trip Generation Rates	
	AM Peak Hour	PM Peak Hour
• Hospital (71%) / Medical-Office (29%):	1.70	2.06

The following shows how these blended rates compare with the observed trips at the Kaiser Morse Avenue Facility:

- AM peak hour: observed rate of 1.8 trips per ksf is six percent greater than the ITE blended trip rate.
- PM peak hour: observed rate of 2.01 trips per ksf is 2.5 percent lower than the ITE blended trip rate.

This suggests that blended ITE rates provide a reasonably accurate estimate of the Kaiser Morse Avenue facility's existing trip generation. Therefore, the blended ITE rates are also considered to be applicable for estimating the proposed project's trip generation, subject to the following two adjustments:

- Adjustment #1 (Difference in MOB Space) – The proposed project would consist of a greater proportion of MOB space (44 percent) than the Kaiser Morse Avenue facility (29 percent).
- Adjustment #2 (Decompression of MOB Space) - The proposed project would provide an average of 1,705 square feet of space per provider, whereas the Kaiser Morse Avenue facility currently provides 1,350 square feet per provider. Hence, the proposed project would result in a 20.8 percent reduction in MOB provider density. Since provider density affects both the number of employees and patient visits, this effect was accounted for by applying a 20.8 percent reduction to the MOB trip rate.

The following shows the blended ITE trip rates based on the proposed project's mix of hospital and MOB space.

	ITE Blended and Adjusted Trip Generation Rates	
	AM Peak Hour	PM Peak Hour
• Hospital (56%) / Medical-Office (44%):	1.76 [4]	2.14 [5]

Table 4 displays the vehicular trip generation of the proposed Kaiser Medical Center using the identical trip rates observed at the Kaiser Morse Avenue Facility.

[4] Calculated as follows: (56%*0.96) + ((44%*3.5)0.792) = 1.76

[5] Calculated as follows: (56%*1.16) + ((44%*4.27)0.792) = 2.14

Table 4 – Unadjusted [1] Trip Generation of Proposed Medical Center							
Peak Hour	Square Feet (ksf)	Vehicle Trip Rates (per ksf) [2]			Trips		
		Inbound	Outbound	Total	Inbound	Outbound	Total
AM (8 – 9 AM)	1,168	1.39	0.37	1.76	1,624	432	2,056
PM (4 – 5 PM)	1,168	0.66	1.48	2.14	771	1,729	2,500
Pre-Event [3] (6:30-7:30 PM)	1,168	0.31	0.70	1.01	362	818	1,180

Notes:
[1] The term 'unadjusted' is used because the location of the proposed Medical Center could result in greater levels of walking, bicycling, or transit use than occurred at the Kaiser Morse Avenue Facility. Analysis of these travel choices is presented later in this memo.
[2] AM and PM peak hour vehicular trip rates applied to the proposed Medical Center are based on adjusted 'blended ITE trip rates' that are calibrated to Kaiser Morse Avenue Facility travel. Refer to previous page for description of how adjustments were made.
[3] Existing pre-event peak hour trip rate at Kaiser Morse Avenue Facility was 53 percent lower than PM peak hour trip rate. This same adjustment was applied for proposed project.

It is important to note that the values in Table 4 do not reflect any additional adjustments for the potential for bicycle, walk, and transit trips made to the proposed project. Such adjustments are presented in Section IV of this memorandum.

Prior to settling on the above approach, we considered using the observed trip generation studies of Kaiser facilities in Southern California. However, we ultimately decided against using that data for the following reasons:

1. Additional documentation would be necessary including: date of counts, name of count firm, and consultant(s) overseeing counts, data on patient census levels (compared to annual averages) on count days, and building occupancy during counts. Also, it would be helpful if the accuracy of the hose counts placed across slow-speed driveways could be demonstrated. Additionally, were any non-project trips passing through the Kaiser Irvine Medical Center observed and accounted for?
2. The Anaheim Canyon Metrolink Commuter Rail station is located less than ¼ mile from the Kaiser Anaheim Medical Center. The observed trip rates at that medical center take into consideration person trips made by rail. A metrolink station is also located in the vicinity of the Kaiser Riverside Medical Center, though not as conveniently located.

Lastly, it is noted that since the Kaiser project application calls for the closure of its Morse Avenue Facility, it would be difficult to justify the use of a different trip rate than was measured at Morse Avenue.

III. Trip Distribution Characteristics

The spatial distribution of Kaiser members who would regularly use the new facility and employees who would work at the new facility is critically important to the analysis. Kaiser representatives provided the following data to support this analysis:

- Anonymous home residence zip codes of about 230,000 Kaiser members who would regularly use the new facility (Kaiser excluded zip codes closer to their Roseville and South Sacramento facilities).
- Anonymous home residence zip codes of about 3,000 Kaiser employees who currently work at the Kaiser Morse Avenue facility. These employees would be relocated to the new facility. Although total employment levels will likely rise due to the proposed facility's larger size, it is reasonable to assume that the overall distribution pattern of employee residences will be similar given the large sample size.

Figure 1 shows that 96 percent of Kaiser members who would use the proposed facility reside in the top 27 (i.e., most recurring) zip codes. These zip codes reveal pronounced east-west directionality relative to the project site. This is due to the existing Kaiser Medical Centers in Roseville and Elk Grove, which would continue to serve those members living northeast and south of the project vicinity, respectively.

Figure 2 shows how the spatial distribution of zip codes translates into anticipated usage of major freeways to access the project site. As shown, the majority of member zip codes are located east of the project site. A variety of freeways would be used to access the project including US Highway 50, Capital City Freeway, SR 160, Interstate 5, and Interstate 80.

Figure 3 shows the distribution of Kaiser employee zip codes. This figure shows that 82 percent of employees reside in the top 40 (i.e., most recurring) zip codes. Unlike the distribution of member zip codes, Kaiser employee zip codes have a more pronounced north-south orientation. This is because some employees residing in the populated areas of Elk Grove, South Placer County, Citrus Heights, and other areas would work at the proposed project despite being physically closer to the other medical centers. **Figure 4** shows how the spatial distribution of zip codes translates into anticipated usage of major freeways to access the project site.

Medical centers also attract visitors who come to see patients. Trips made by visitors can represent an important component of overall travel. Their trips are reflected in the Morse Avenue Kaiser Facility trip rates. Their spatial trip distribution patterns are likely similar to the member zip codes shown on Figure 1. Other types of trips, such as deliveries, taxis, ambulances, etc. also occur, but do not represent a substantial percentage of overall trips, and are reflected in the trip rates.

The top 25 residence zip codes of Kaiser members and employees are attached to this memo.
The data on Figures 1 through 4 will serve the following technical purposes:

1. *Distribution of Vehicle Trips* – The percentages shown on Figures 2 and 4 allow us to develop project trip distributions for purposes of estimating project-added vehicle trips at the study intersections and freeway facilities.
2. *Likelihood of transit usage* – In the next section, we evaluate how the zip code locations influence the likelihood of travel to the project site via public transit.
3. *Vehicle Miles of Travel (VMT) Calculations* – The zip code data, along with trip generation and mode split estimates, will be used to estimate how the closure of the Kaiser Morse Avenue Facility and opening of the proposed project would affect overall VMT.

Proportion of Peak Hour Trips by Kaiser Members Versus Employees

Kaiser administrators indicated that their employees (at Morse Avenue and also for the project) who are involved in health care-related functions typically work the following shifts (start/end times are approximate):

- 70 percent work the day shift from 7 AM to 3 PM.
- 18 percent work the evening shift from 3 PM to 11 PM.
- 12 percent work the overnight shift from 11 PM to 7 AM.

Kaiser administrators also indicated that the first and last appointment times for outpatient care typically occur at 8:30 AM and 5 PM, respectively. However, medical centers such as Kaiser also have a variety of other employees with various administrative roles who work a more typical weekday (i.e., 8 AM to 5 PM) type schedule.

Table 5 shows the temporal distribution of arriving and departing traffic to the Kaiser Morse Avenue facility. Key conclusions from this data include:

- AM Peak Period: Inbound traffic is greatest from 8 to 9 AM, presumably as patients arrive in advance of their appointments, which begin at 8:30 AM. However, it is likely that many employees also arrive during this peak hour.
- PM Peak Period: Inbound traffic is greatest from 4 to 5 PM as patients arrive in advance of their appointments, the last of which begins at 5 PM. Outbound travel is much greater from 4 to 5:30 PM (versus after 5:30 PM) due to the combined effects of both patients and some employees departing during this period.

Table 5 – AM and PM Peak Period Travel at Kaiser Morse Avenue Facility

Time	Inbound Vehicles [1]	Outbound Vehicles [1]
7:00 – 7:30 AM	223	99
7:30 – 8:00 AM	281	105
8:00 – 8:30 AM	**375**	79
8:30 – 9:00 AM	301	104
TOTAL	1,180	387
4:00 – 4:30 PM	155	335
4:30 – 5:00 PM	141	329
5:00 – 5:30 PM	92	**356**
5:30 – 6:00 PM	109	189
6:00 – 6:30 PM	115	173
6:30 – 7:00 PM	109	122
7:00 – 7:30 PM	80	144
TOTAL	801	1,648

Notes:
[1] Counts collected on Tuesday, October 27, 2015. Bolded values represent the peak directional 15-minute vehicle flow rates.
ksf = thousand square feet.

In consideration of the above, we believe it is reasonable and (technically justified based on employee shift times) to assume the following proportions of member versus employee trips for each study period. These ratios are also based on our own professional judgement, which reflects our numerous observations at medical centers and MOBs located throughout Sacramento and beyond.

- AM Peak Hour: 65 percent members and 35 percent employees.
- PM Peak Hour: 40 percent members and 60 percent employees.
- Pre-Event Peak Hour: 40 percent members and 60 percent employees.

These ratios do not affect trip generation. Rather, they affect trip distribution and mode split due to the different geographic origins and destinations of the two groups as is described later in this memo.

IV. Mode Choice

Table 4 displayed the unadjusted trip generation of the proposed project prior to any adjustments being made for bicycle, walk, and transit trips (due to adjacent transit service availability) given the project's location. This section discusses the project's expected mode split (under baseline conditions).

Anticipated Use of Bus

A bus stop is located on both sides of Morse Avenue adjacent to the Kaiser Morse Avenue Facility. Sacramento Regional Transit (RT) operates bus routes 22, 80, and 84 on one-hour headways during peak periods, while Route 82 operates on 30-minute headways. During peak hours, ten buses per hour stop at the Kaiser facility to pick-up or drop-off members and employees.

We obtained peak hour boarding and alighting data from RT for these four bus routes. It is likely that bus riders that board or alight at this stop were associated with Kaiser Morse Avenue given its close proximity and regional attraction. The following data was obtained:

- AM Peak Hour (8-9 AM): 8 passengers alighted (exited) and 5 passengers boarded from the four routes.
- PM Peak Hour (4-5 PM): 6 passengers alighted (exited) and 9 passengers boarded from the four routes.

This information can be used to estimate a bus mode split by converting vehicle trips from Table 4 into person trips (assuming an average vehicle occupancy of 1.2 persons per vehicle). This represents a 0.5 percent bus mode split during the AM and PM peak hours.

The proposed Kaiser facility in the Railyards would have a similar level of fixed-route bus service available under near-term conditions. Four routes (11, 15, 29, 33) currently include stops in the project vicinity. Figures 1 and 3 show that these routes extend in northerly and easterly directions and cover only a minor amount of the zip codes from which Kaiser members and employees reside.

To provide an additional comparative evaluation, we obtained bus ridership data from the Sutter Sacramento Medical Center (adjacent to the Capital City Freeway) to understand whether medical centers near the CBD have higher levels of bus ridership than in more suburban locations. This facility is served by four bus routes. During the AM peak hour, there were 12 alightings. During the PM peak hour, there were 21 boardings. Given that project's size (over one million square feet), this level of bus ridership appears generally comparable to the Kaiser Facility on Morse Avenue.

- Fehr & Peers proposes to not make any additional adjustments to the gross trip generation estimates in Table 5 to account for additional bus ridership at the proposed project. This approach is based on the following:
    - The trip rates already account for a 0.5 percent bus ridership mode split.
    - Current bus service provided near the project site would serve only a minor proportion of zip codes in which Kaiser members and patients reside.
    - The proposed Kaiser facility would have comparable levels of (near-term) bus service as the Sutter Sacramento Facility, which was found to have a similar bus mode split.

Anticipated Use of Light Rail

Figures 2 and 4 reveal the following (approximate) proportions of Kaiser members and employees who reside in the vicinity of a light rail corridor. While some members/patients could walk to the station, most would need to drive, take a bus, or get dropped off to access light rail.

Approximate Kaiser Member and Employee Zip Code Proportions Along Light Rail Corridors

	Gold Line (East to Folsom)	Blue Line (East to Watt)	Blue Line (South to CRC)
Members	28%	33%	< 5%
Employees	23%	40%	21%

Note: Each of these routes would require a transfer to the Green line.

Figure 5 shows that an estimated four percent of Kaiser members reside within ½-mile of a light rail station. This distance is often considered the maximum distance individuals will walk to access transit. This figure shows that another 26 percent reside between ½ and 2 miles of a light rail station. These members could walk/bike, drive, be dropped off, or take a bus to access the station. The remaining 70 percent reside at least two miles from a light rail station.

Figure 6 shows that one percent of Kaiser employees reside within ½-mile of a light rail station. Another 10 percent of employees reside between ½ and 2 miles of a light rail station. The remaining 89 percent reside at least two miles from a light rail station.

The relative travel time between light rail and driving is one of several important determinants of mode choice. **Table 6** compares AM peak hour inbound travel time and PM peak hour outbound travel time along the three LRT/freeway corridors for travel by (single occupant) vehicle and light rail. This data indicates that travel to the site by vehicle is currently much shorter than travel by light rail.

Table 6 –Peak Hour Directional Travel Time Comparison Along LRT/Freeway Corridors

Travel Mode	AM Peak Hour Inbound			PM Peak Hour Outbound		
	Blue Line (Northeast) at Watt Avenue	Gold Line (East) at Watt-Manlove	Blue Line (South) at Meadowview	Blue Line (Northeast) at Watt Avenue	Gold Line (East) at Watt-Manlove	Blue Line (South) at Meadowview
Single Occupant Vehicle [1]	15 to 20 min.	20 to 25 min.	20 to 30 min.	20 to 25 min.	25 to 35 min.	25 to 35 min.
Light Rail	52 min.	51 min.	50 min.	52 min.	49 min.	50 min.

Notes:
[1] Vehicle travel time range is based on https://www.google.com/maps website (using peak hour peak-period congested travel times) with trip origin/destination being the light rail station and project site.

We translated the Kaiser member and employee residence zip code data into the traffic analysis zone (TAZ) system of the SACMET regional travel demand model. We then used the base year version of this model to estimate the transit mode split associated with inbound travel from each TAZ to the Kaiser project (it is not possible to isolate the reverse movement due to model trip tracking limitations). For employees, only home-based-work trips were tracked. For members, trips with home-based-other, and non-home-based-other purposes were tracked. The model estimated that less than one percent of Kaiser members[6] and 14 percent of Kaiser employees[7] would take transit to access the proposed project.

6 Transit use is expected to be greater for employees than members because some members may have mobility challenges that pose challenges to access light rail stations. Further, travel behavior data shows that transit comprises a greater percentage of work versus other trips.

7 This result is supported by data from the *Highway Capacity Manual* (2010), Transportation Research Board,. pp. 3-26, in which it was reported using Census data that 12.3 percent of downtown commuters to Sacramento chose transit.

Page 9 of this memo presented estimated proportions of trips made by members versus employees during each peak hour. The SACOG model's transit mode split percentages can be applied to these proportions to create a 'weighted average' transit mode split for each peak hour.

Anticipated Walking

The project site is located within zip code 95811, which extends northerly to the American River, southerly to the UPRR tracks, westerly to the Sacramento River, and easterly to 12th Street. The adjacent zip code to the south is 95814, which covers the CBD. These two zip codes represent the expected primary origins/destinations of walk trips. These zones comprise 1.7 percent of all member residence zip codes and 0.3 percent of all employee residence zip codes. Thus, the number of Kaiser employees and members within the catchment area for walk trips is limited.

Anticipated Bicycling

The catchment area for bicycle trips to Kaiser will be geographically larger than walk trips. The majority of properties within zip codes 95811, 95814, 95816, 95833, and 95605 are within a four-mile bike ride of the Medical Center. These zones comprise 11 percent of all member residence zip codes and 3 percent of all employee residence zip codes. Thus, the number of Kaiser employees and members within the catchment area for bike trips to Kaiser is moderate, and suggests that some bicycling activity to/from the site is expected.

Table 7 displays the expected mode split for the proposed Kaiser Medical Center under baseline conditions. This table indicates transit (bus and light rail) mode split ranges from 5.5 to 8.5 percent depending on the peak hour, while the active transportation (bike and walk) mode split is 2.5 percent.

Table 7 – Kaiser Medical Center Mode Split – Baseline Conditions

Peak Hour	Travel Mode				
	Auto	Light Rail	Bus	Bike	Walk
AM	92%	5%	0.5%	2%	0.5%
PM	89%	8%	0.5%	2%	0.5%
Pre-Event	89%	8%	0.5%	2%	0.5%

Notes:
Refer to pages 10-13 for analyses methodologies used to estimate mode split.

Table 8 displays the net external vehicular trip generation of the proposed Kaiser Medical Center. This table reflects adjustments for travel by bicycle, walk, and transit trips.

Table 8 – Net External Vehicular Trip Generation of Proposed Medical Center

Land Use	Square Feet (ksf)	Trips [1]								
		AM Peak Hour			PM Peak Hour			Pre-Event Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	1,168	1,624	432	2,056	771	1,729	2,500	362	818	1,180
Reduction for Bicycle Trips (2%)		32	9	41	15	35	50	7	17	24
Reduction for Walk Trips (0.5%)		8	2	10	4	9	13	2	4	6
Reduction for Light Rail Trips (5% / 8%)[2]		81	22	103	62	138	200	29	65	94
Net External Vehicle Trips		1,503	399	1,902	690	1,547	2,237	324	732	1,056

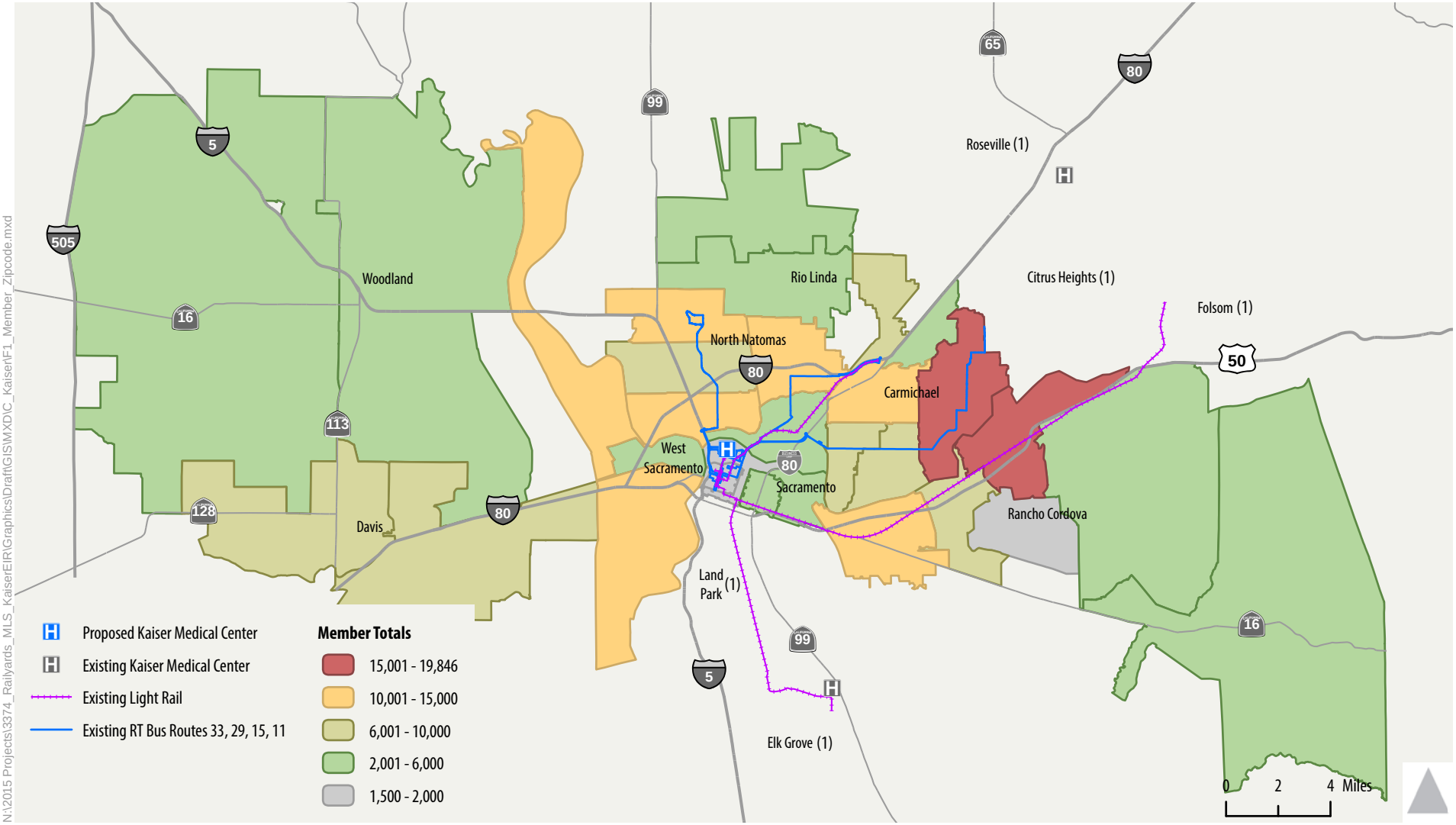
Notes:
[1] Gross trips from Table 4 are reduced for bicycle, walk, and light rail trips. Gross trips already account for 0.5% bus mode split.
[2] Light rail mode split is 5% during AM peak hour and 8% during PM and pre-event peak hours.

V. Vehicle Trip Assignment

The SACMET model will be used to assign vehicle trips through the study intersections and freeway facilities in accordance with the following steps:

1. The origin/destination of trips will be based on employee and member zip codes, which were translated into the model's TAZ system. The weighting of zip codes will be based on the trip proportions shown on page 8 for each peak hour.
2. A trip table (matrix) is created that assigns inbound and outbound vehicle trips between the various TAZs and the Kaiser site.
3. The model assigns project trips to various freeways and surface streets. This process allows for the traffic model to keep account of the volume and routing of trips. These trips are then added to the "Baseline No Project" scenario to yield the "Baseline Plus Medical Center" scenario. We will review the trip assignment patterns for reasonableness (i.e., congested ramps and other bottlenecks). If necessary, we will reroute trips to shorter paths.

Since the Kaiser project application calls for the closure of its Morse Avenue Facility, the "Baseline Plus Medical Center" scenario will remove existing vehicle trips generated by that facility. The process for doing this is very similar to the three steps described above.



Notes:

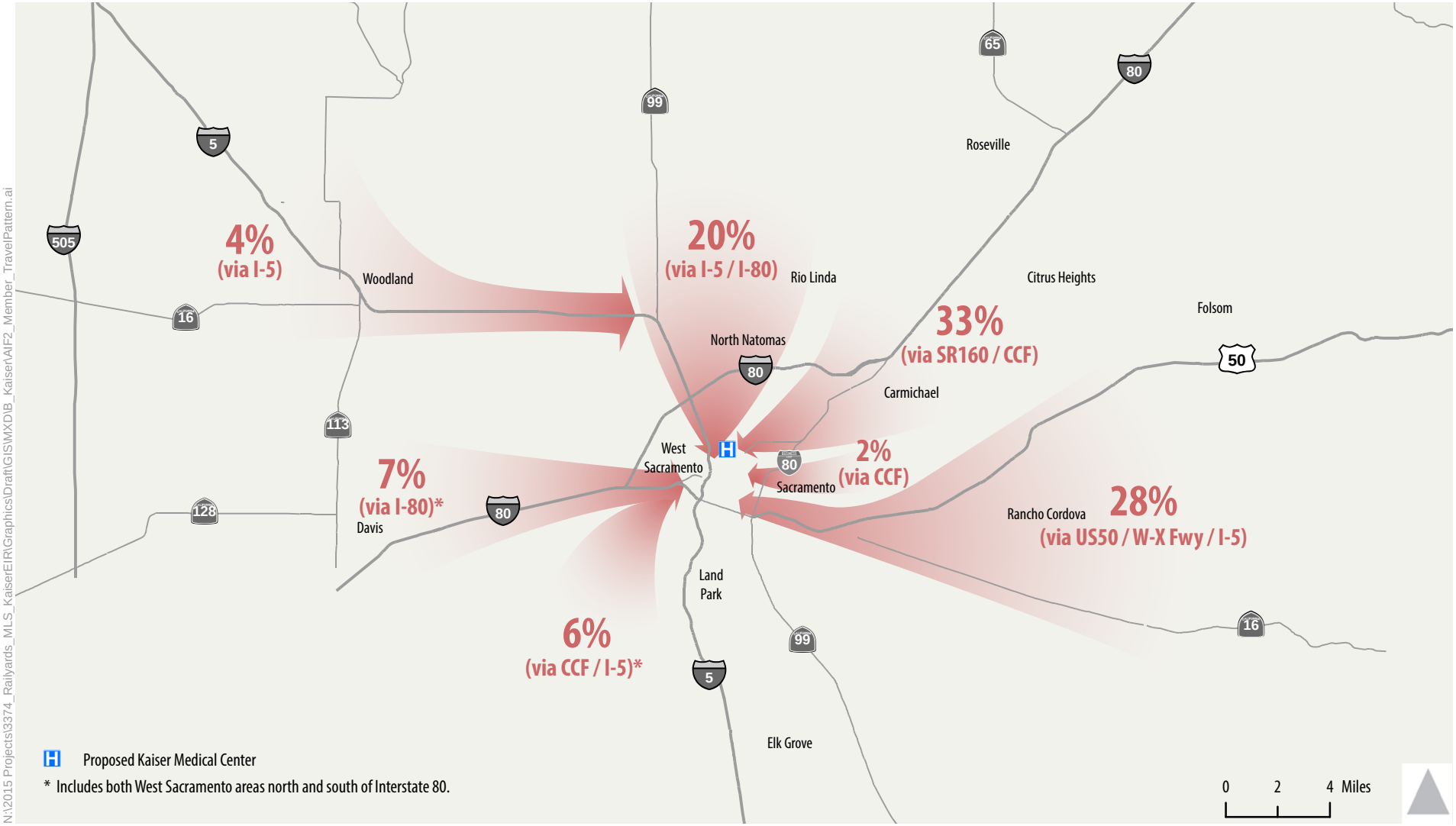
1. Top 27 zip codes which are shown, represent 96% of members.
2. Database represents members who would regularly use proposed project versus Kaiser regional medical facilities in Roseville and South Sacramento.

(1) Membership database shows no members in zip codes in these areas (due presumably to other Kaiser facilities being closer).

Figure 1

Residence Zip Codes of Kaiser Members of Proposed Medical Center

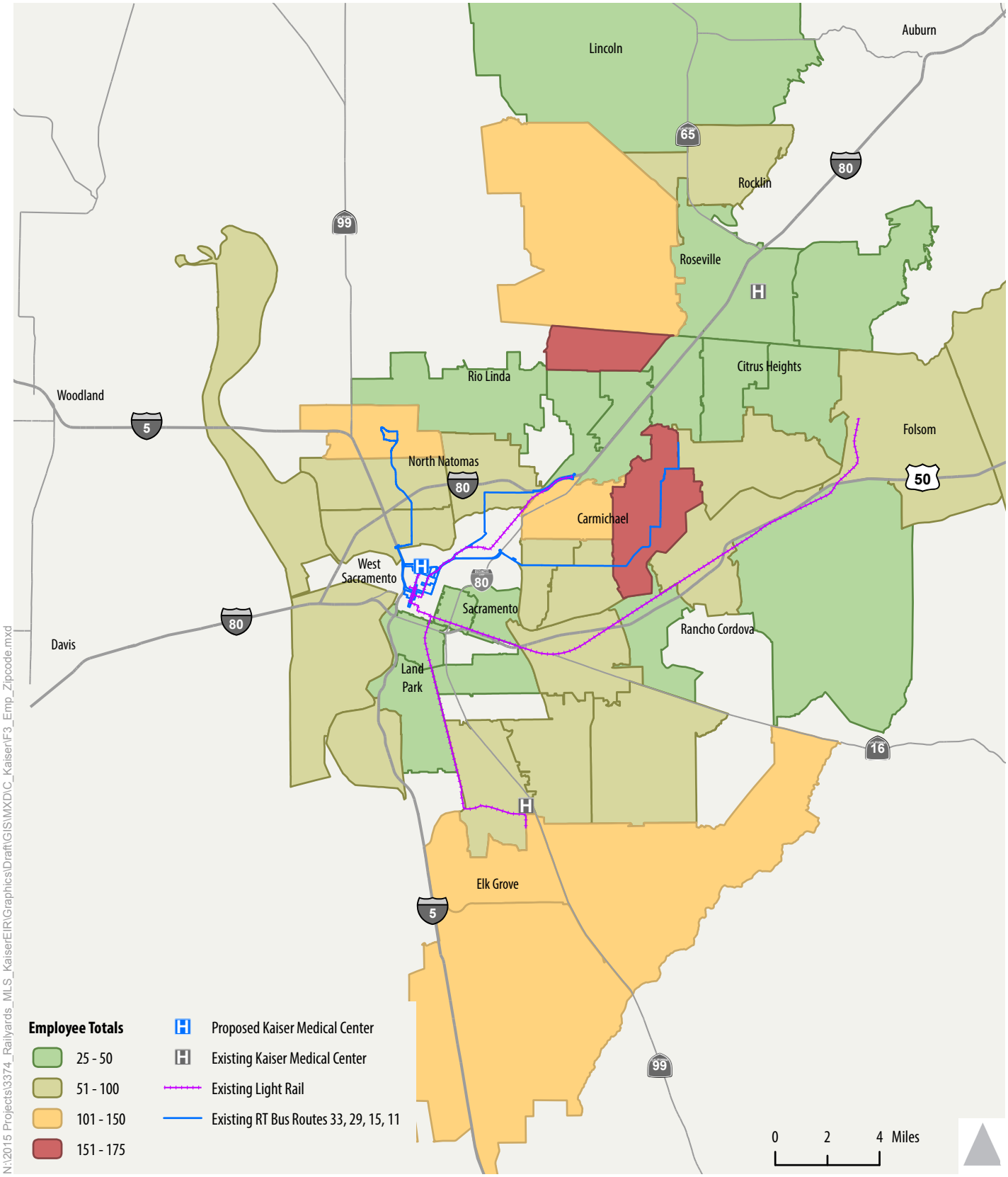
Top 25 Zip Codes of Kaiser Members Who Will use the New Facility			
	ZIP Code	**Members**	**Total Percent**
1	95608 Carmichael	19,846	8.6%
2	95670 Rancho Cordova	18,111	7.8%
3	95835 North Natomas	14,337	6.2%
4	95833 North Natomas	13,311	5.8%
5	95826 Rosemont	13,166	5.7%
6	95691 West Sacramento	12,958	5.6%
7	95821 Arden Arcade	11,121	4.8%
8	95838 Norht Sacramento	11,055	4.8%
9	95834 North Natomas	9,494	4.1%
10	95660 North Highlands	9,456	4.1%
11	95825 Arden Arcade	8,229	3.6%
12	95864 Arden Arcade	7,964	3.4%
13	95827 Rancho Cordova	7,754	3.4%
14	95616 Davis	6,384	2.8%
15	95618 El Macero	6,222	2.7%
16	95673 Rio Linda	5,972	2.6%
17	95815 Sacramento	5,929	2.6%
18	95841 Sacramento	5,697	2.5%
19	95695 Woodland	5,383	2.3%
20	95819 Sacramento	5,219	2.3%
21	95816 Sacramento	5,016	2.2%
22	95742 Rancho Cordova	4,836	2.1%
23	95776 Woodland	4,302	1.9%
24	95605 Broderick	3,378	1.5%
25	95683 Sloughhouse	2,710	1.2%
	Total Members = 231,196	**217,850**	**94.2%**



Note: "via ___" represents likely regional freeway(s) used for travel.

Figure 2

Regional Travel Patterns of Kaiser Members to Proposed Medical Center

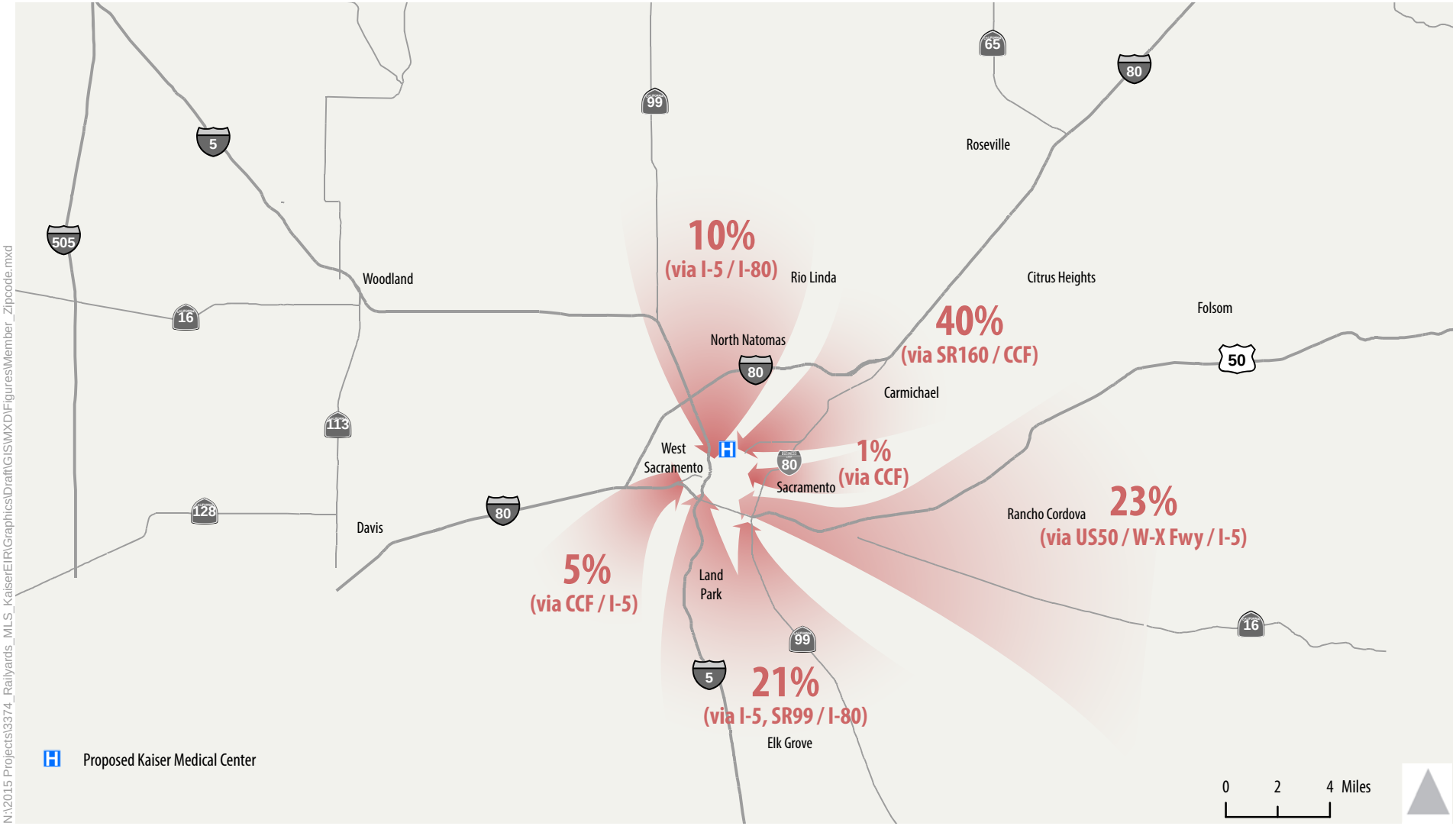


Note:
1. Top 40 zip codes which are shown, represent 82% of employees.

Figure 3

Residence Zipcodes of Kaiser Employees of Proposed Medical Center

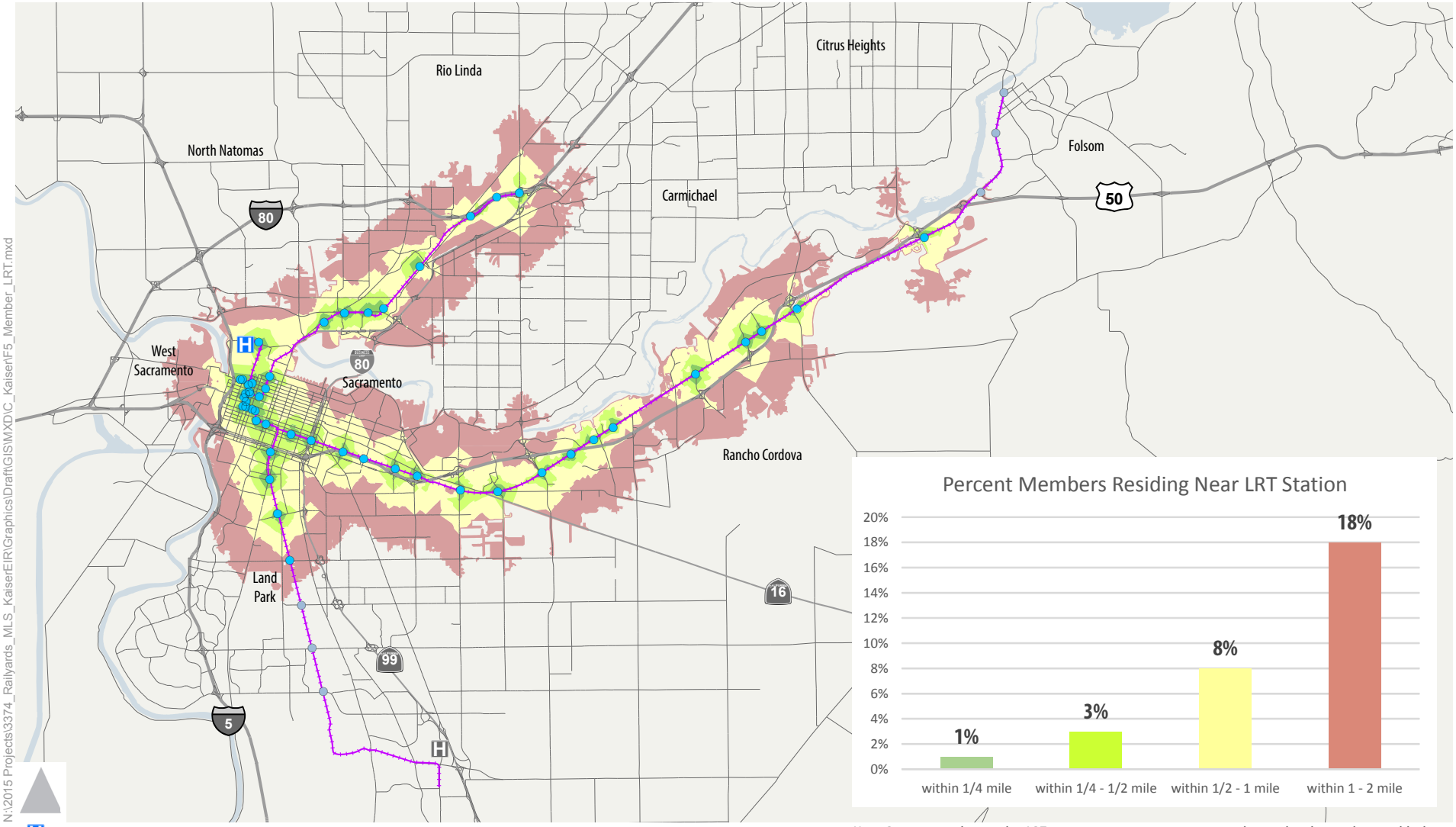
Top 25 Zip Codes of Employees Who Will Work at Proposed Medical Center			
ZIP Code		Employees	Total Percent
1	95608 Carmichael	168	5.1%
2	95843 Antelope	149	4.5%
3	95624 Elk Grove	140	4.3%
4	95747 Roseville	137	4.2%
5	95835 North Natomas	131	4.0%
6	95757 Elk Grove	119	3.6%
7	95821 Arden Arcade	108	3.3%
8	95758 Elk Grove	103	3.1%
9	95630 Folsom	89	2.7%
10	95864 Arden Arcade	88	2.7%
11	95825 Arden Arcade	82	2.5%
12	95823 South Sacramento	74	2.3%
13	95829 Vineyard	73	2.2%
14	95628 Fair Oaks	70	2.1%
15	95826 Rosemont	70	2.1%
16	95670 Rancho Cordova	68	2.1%
17	95831 Riverview	68	2.1%
18	95762 El Dorado Hills	61	1.9%
19	95691 West Sacramento	60	1.8%
20	95765 Rocklin	55	1.7%
21	95834 North Natomas	54	1.6%
22	95838 North Sacramento	53	1.6%
23	95833 North Natomas	52	1.6%
24	95828 Florin	51	1.6%
25	95678 Roseville	49	1.5%
	Total Employees = 3,277	**2,172**	**66.3%**



Note: "via ___" represents likely regional freeway(s) used for travel.

Figure 4

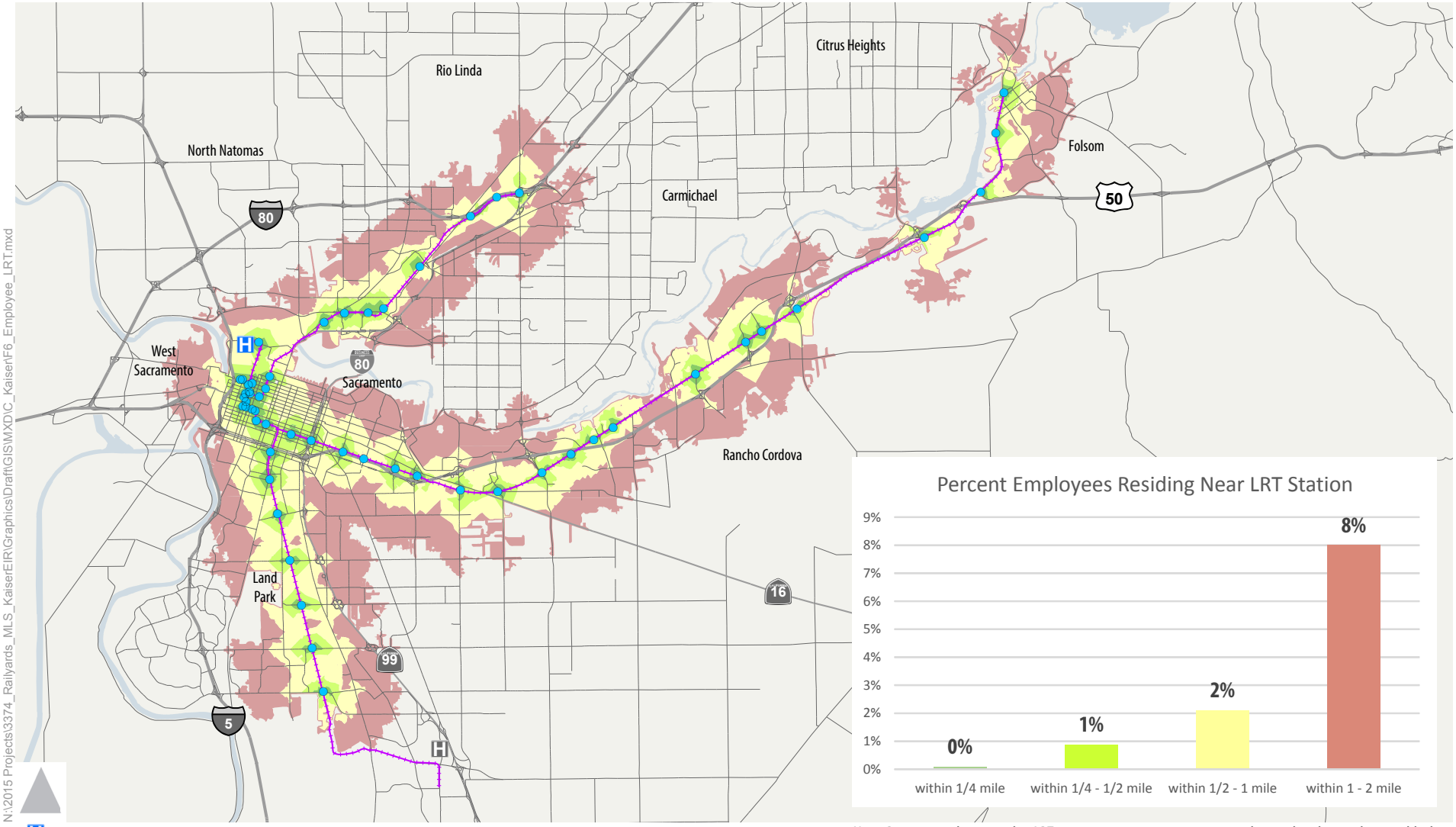
Regional Travel Patterns of Kaiser Employees to Proposed Medical Center



Note: Percent members within LRT stations are estimates using zip code member data and census block group household data.

Figure 5

Kaiser Members Residing Near Light Rail Stations



Note: Percent employees within LRT stations are estimates using zip code member data and census block group household data.

Figure 6

Kaiser Employees Residing Near Light Rail Stations

FEHR PEERS

FINAL TECHNICAL MEMORANDUM #3

Date: January 8, 2016

To: Pelle Clarke & Samar Hajeer – City of Sacramento

From: John Gard – Fehr & Peers

Subject*: *Travel Characteristics of Proposed MLS Stadium in Railyards Specific Plan

RS15-3374

This memorandum presents the anticipated travel characteristics of the proposed Major League Soccer (MLS) Stadium ("Stadium") project to be located north of Railyards Boulevard between 8th and 10th Streets in the Railyards Specific Plan. This evaluation is applicable primarily to the "Baseline Plus Stadium" scenario. However, portions of the analysis presented herein will also be applicable to cumulative conditions.

This memorandum is organized into the following sections:

I. Proposed Stadium Size and Activities
II. Travel Behavior at Sacramento Republic FC Soccer Matches
III. Analogous MLS Stadium – Providence Park (Portland Timbers)
IV. Expected Parking Demand and Proposed Supply
V. Expected Mode Split
VI. Trip Generation Characteristics
VII. Trip Distribution Characteristics
VIII. Vehicle Trip Assignment

I. Proposed Stadium Size and Activities

During the scoping process, it was determined that the following activity at the proposed Stadium would be quantitatively studied in the Draft EIR:

- Analysis of Pre-Event Peak Hour (6:30 to 7:30 PM) for Weekday Evening Sold-Out (25,000 attendees) Professional Soccer Match

The following two points offer support for the selection of this analysis scenario. First, although more MLS matches are played on weekends than weekdays, background traffic levels are greater during weekday evenings. Second, our prior studies (i.e., counts at a Sacramento Kings game at Sleep Train Arena and at a Sacramento Republic FC match at Bonney Field) have shown that the busiest pre-event hour of travel occurs one hour prior to the event start. The Draft EIR will include a more detailed description supporting why this day/time was selected for study (including the schedule for West Coast MLS teams and detailed traffic volume comparisons between weekday evenings and weekend afternoons).

It is possible for there to be both MLS and USL (United Soccer League) teams residing in Sacramento. This currently occurs in New York, Montreal, Toronto, Los Angeles, Seattle, Portland, Vancouver, and Salt Lake City. However, the majority of MLS teams (particularly those in smaller markets) do not also have a USL team. Additionally, it is noted that MLS matches do not necessarily overlap with USL matches. For these reasons, this analysis does not "subtract" trips associated with a Sacramento Republic FC weekday evening match being played at Bonney Field (at Cal Expo) at the same time an MLS game would be played at the proposed Stadium.

It is acknowledged that the travel behavior and demographics of attendees to MLS soccer matches may be somewhat different than for Sacramento Republic FC soccer matches. However, those differences are not currently known. Therefore, this analysis conservatively assumes the same travel behavior observed at Sacramento Republic FC soccer matches would also occur at the proposed Stadium. The analysis will consider how mode choice, route selection, ad parking will be influenced by the location of the proposed Stadium.

During weekday evening MLS matches, an estimated 460 employees would be present at the Stadium including police, medical, concessions, ticketing, ushers, security, and cleaning. The vast majority of these employees would arrive prior to the pre-event peak hour.

II. Travel Behavior at Sacramento Republic FC Soccer Matches

This section presents travel data collected at Sacramento Republic FC soccer matches. This data is used in later sections to help determine the expected mode split, vehicular trip generation, and parking demand of the proposed Stadium.

Vehicle Occupancy and Arrival Patterns at Sacramento Republic FC Match at Bonney Field

We conducted evening peak period traffic counts at all entry/exit points that serve Bonney Field at Cal Expo on Saturday, September 20, 2014. During this evening, the Sacramento Republic FC hosted a home playoff match, which had an announced sell-out crowd of 8,000 persons. Key findings from this data collection effort included:

- The gates opened at 6:00 PM and the match started at 7:30 PM. The following shows the vehicular arrival percentages in 30-minute increments. This data indicates that 70 percent of inbound traffic arrived during the one hour prior to the start of the event.

Time	Inbound Percentage
5:30-6:00 PM	6.1%
6:00-6:30 PM	16.7%
6:30-7:00 PM	38.0%
7:00-7:30 PM	32.0%
7:30-8:00 PM	7.2%
Total	100%

- During the pre-event peak hour, there was approximately one outbound trip for every 30 inbound trips. This was presumably made by an employee, delivery, or attendee drop-off.

- Vehicle occupancy was recorded for over 1,900 inbound vehicles, with the average vehicle occupancy (AVO) being 2.23 persons per vehicle.

- Travel to Bonney Field by walk or bike was negligible (though it is noted that some attendees chose to park on the north side of Exposition Boulevard and walk into Cal Expo to avoid paying for parking).

The reasonableness of these results is confirmed by counts we conducted on April 5, 2012 during a Sacramento Kings game at Sleep Train Arena. During that game, 67.4 percent of inbound traffic arrived during the one hour prior to the start of the event. An AVO of 2.27 was observed.

Light Rail Use at Hughes Stadium

Sacramento Regional Transit (RT) provided boarding and alighting information during four Sacramento Republic matches played at Hughes Stadium, which is located in close proximity (i.e., less than ¼-mile walk) to the Sacramento City College light rail station along the Blue line. The data below indicates that between 4.5 and 6.2 percent of attendees traveled to Hughes Stadium by light rail.

Date	Alightings (pre-match)	Boardings (post-match)	Attendance	Mode Split
5/3/2014	1,082	972	17,414	5.6% - 6.2%
5/17/2014	916	967	20,231	4.5% - 4.8%
6/7/2014	910	963	20,231	4.5% - 4.8%
2/28/2015	1,043	930	20,231	4.6% - 5.2%

Sacramento Republic FC Season Ticket Holder Residence Zip Codes

We were provided anonymous residence zip codes for all 2015 season ticket holders by Sacramento Republic FC representatives. Approximately two-thirds of the 12,000 seats at Bonney Field, which was expanded from 8,000 to 12,000 seats after the 2014 season, are reserved for season ticket holders. Of this total, 6,687 tickets are associated with individuals (versus businesses or other organizations).

Figure 1 displays the distribution of zip codes for residential season ticket holders within the Sacramento region. This figure indicates that zip codes with the greatest proportion of season ticketholders (i.e., 3 to 5 percent in each zip code) occurs in Land Park, Elk Grove, East Sacramento, Carmichael, and Folsom. However, other areas of the region including Natomas, West Sacramento, Rancho Cordova, Roseville, and eastern Sacramento County also have significant shares (i.e., ranging from 1.5 to 3 percent in each zip code). Lastly, it is noted that 17 percent of season ticket holder zip codes are beyond the limits of Figure 1, suggesting that some reside in outlying areas such as Yuba City, Dixon, Lincoln, Auburn, Cameron Park, Placerville, Galt, Rancho Murrieta, and Stockton/Lodi.

Figure 2 indicates the general direction of travel residential season ticket holders would likely take to access the proposed Stadium (for travel originating/destined from the residence). This information is based on GIS mapping of zip code frequency and street network connectivity. This figure shows the predominant travel directions being to/from the east, south, and north. Attendees would use a variety of freeways including I-5, I-80, SR 160, SR 99, US 50, the W-X Freeway, and the Capital City Freeway.

Sacramento Republic FC Attendee Cell Phone Data Travel Patterns

We contracted with AirSage to obtain cell phone data for eight (8) Sacramento Republic weekday evening matches played at Bonney Field in 2014 and 2015. AirSage contracts with cell phone service providers to obtain this data. Their agreements require the data to be 'scrubbed' so that individual travel behavior is anonymous. They use complex analytical tools and methods to determine when a trip begins and ends based on the location of the cell phone, time elapsed without cell phone movement, and other considerations. We provided AirSage with a GIS file containing the traffic analysis zone (TAZ) system of the SACMET regional travel demand model. We added several additional zones beyond the SACOG region to capture travel from San Joaquin and Solano Counties. We also specified that inbound trips be collected from 5 to 8 PM during match days. Similarly, data for outbound trips was collected from 9 PM to 12 AM. We made certain that the selected match days did not overlap with other major events held at Cal Expo, such as the State Fair and remote parking for the 2015 US Senior Open.

The data yielded a sample of 722 inbound trips and 878 outbound trips. Over the eight matches, the total attendance was approximately 74,000 persons. Each directional sample represents about one percent of overall attendance level. This level of sampling is expected for several reasons. First, most, but not all attendees have cell phones. Second, data was provided by one of the cell phone service providers in the area, meaning only a portion of the cell phone market was sampled. Third, cell phone data is not continuously transmitted, and as such, some trips involving idle phones were not observed. Fourth, AirSage carefully reviews the cell phone records and removes data points that are potentially inaccurate (e.g., unclear of start/end of trip or TAZ). We reviewed the resulting sample and found the data to represent a broad geographic area of trip origins and destinations.

The pre-event inbound directionality of trips showed a strong correlation with season ticket holder zip code residence data. This suggests that many of the pre-event trips originated from a residence, which is generally reasonable since games started at 7:30 PM (i.e., less likely for trip to come from an employment center).

The post-event outbound directionality of trips is comparable to the pre-event distribution, but shows a slightly greater orientation of trips toward TAZs with retail uses. In fact, the TAZs comprising the post-event destinations had 16 percent more retail employees (based on data from the SACMET model) than the pre-event destinations. This makes intuitive sense because two of the eight games were played on a Friday evening, in which attendees may be more inclined to visit a restaurant, bar, or ice cream shop after games, given that most people do not work on Saturdays.

In summary, the cell phone data is considered valid for use in helping to assess the project's travel characteristics.

Figures 3 and 4 show the trip origins and travel directions for Sacramento Republic FC attendees. **Figures 5 and 6** show similar information for post-event trip destinations. As is described later, this data is used in the distribution and assignment of project trips.

III. Analogous MLS Stadium – Providence Park (Portland Timbers)

The Portland Timbers are an MLS team that plays their home matches at Providence Park (22,000-seat capacity that frequently sells out) in the western area of downtown Portland, Oregon. We visited this facility in July 2015 and spoke with Mr. Jim Blocher, Guest Services Coordinator. We also observed their operations during a Portland Thorns (female professional team) soccer match played at the facility.

Providence Park is considered to be amongst the best analogous MLS facilities to the proposed Stadium for the following reasons (refer to Appendix A for photos):

1. It is located in downtown Portland, approximately one-mile west of the heart of downtown (i.e., Pioneer Place). It feels physically separated from downtown by the I-405 freeway. *The proposed Stadium is situated a similar distance from downtown Sacramento and is also physically separated by the UPRR tracks.*

2. Providence Park is served by the Tri-Met MAX Blue and Red light rail lines. The light rail stop is less than ¼-mile from the facility. Both lines extend westerly from downtown Portland (providing connections to other light rail lines and its downtown streetcar system). These lines continue westerly to the suburban communities of Beaverton and Hillsboro. A bus stop is also situated adjacent to the facility that is used by multiple bus lines that serve numerous areas of the City. *Although the proposed Stadium would also have both bus and light rail service, the overall level of transit service is considered much greater at Providence Park.*

However, there are some noteworthy differences between Providence Park and the proposed Stadium. Providence Park was originally constructed in 1928. Sidewalk widths and on-site pedestrian walkways, number of bathroom stalls, etc. can therefore be somewhat lacking. The available parking supply in the vicinity of Providence Park is limited. As a result, bus, light rail, and bicycling are preferred modes of travel. Although specific estimates of mode split are not available, we were informed that the majority of its patrons travel to the facility in a non-auto mode.

The number of bicyclists traveling to the facility is substantial. In response, the segment of Morrison Street along the facility's frontage is closed to vehicular traffic. It is lined with temporary barricades that are used for bicycle parking during matches.

Mr. Blocher also described various other operational details that will help inform some of our on-site circulation review efforts. This information will be shared in a future memorandum pertaining to site circulation.

IV. Expected Parking Demand and Proposed Supply

This section estimates the parking demand for the proposed Stadium during a sold-out 25,000-person MLS match. The following estimates and assumptions are used to develop this estimate:

- 90 percent of attendees travel by vehicle, with the remaining 10 percent traveling by light rail, bus, bicycle, or walking (see Section V).
- The AVO is 2.23 based on Sacramento Republic FC observations.
- All employees are assumed to park in remote lots and be shuttled to the Stadium.

Based on these parameters, a sold-out 25,000-seat MLS match would require 10,090 parking spaces[1]. To assess available parking in the vicinity of the Stadium, we performed the following evaluations:

- Obtained the proposed supply of parking to be provided on vacant lots within the Railyards Specific Plan.
- Conducted field observations to measure available parking south of the UPRR tracks.
- Evaluated the amount of available parking on vacant and underutilized parcels located north of the Railyards Specific Plan.

Figure 7 shows that there are a total of more than 12,000 planned, available parking spaces in the vicinity of the proposed Stadium. However, as indicated by the walk distance contour lines, not all spaces are located within a ¾-mile or less walk of the stadium. This figure includes various notes that describe in detail how the available parking supply was calculated.

Figure 8 shows that there would be over 10,875 parking spaces located within a ¾-mile walk of the proposed Stadium. Approximately one-third is each located within ¼-mile, within ¼- to ½-mile, and within ½- to ¾- mile of the Stadium. The anticipated use of parking is described in Section VIII.

In summary, an adequate supply of parking is proposed to accommodate a sold-out 25,000-person MLS soccer match under baseline conditions.

V. Expected Mode Split

This section discusses the anticipated use by attendees of light rail, bus, walking, bicycling, and vehicle to travel to the proposed Stadium.

Anticipated Use of Light Rail

During a meeting on November 3, 2015 with the applicant, RT, and City of Sacramento, RT officials expressed a willingness to work with the City and the applicant to ensure that necessary light rail facilities and services would be in place by the time the proposed Stadium would open. Specific improvements identified as being necessary included:

[1] Calculated as follows: 25,000 attendees x 90% auto mode split x one parking space per 2.23 persons = 10,090 spaces.

- Construction of a new (either temporary or permanent) light rail station located on the east side of 7th Street north of Railyards Boulevard.
- Increased service frequency to accommodate special events (including 15-minute train headways and/or 3- or 4-car trains).
- Increased service duration to accommodate transit riders after an MLS match ends (i.e., service would extend until 10:30 or 11:00 PM for a 7:30 PM match).

We estimate a six percent light rail mode split for pre- and post-event attendees. This estimate is based on the following:

- When Sacramento Republic FC matches were played at Hughes Stadium (adjacent to a blue line stop), an average of five percent of attendees were observed using light rail.
- Although the proposed Stadium would be located closer to downtown than Hughes Stadium, it would require any riders using the Blue line (from Cosumnes River College or Watt/I-80) or the Gold line (from Folsom) to transfer at a downtown station to the Green line. In contrast, the Blue line that serves Hughes Stadium does not require the same degree of transfers, which suggests that some riders may choose to deboard at the Alkali Flat station and walk to the Stadium.
- The expected mode split also considers that a portion of the approximately three percent of current Sacramento Republic FC season ticket holders reside in close proximity of the Stadium (i.e., in zip codes 95811 and 95814) and could therefore use the Green line versus walking for their trip. See below for detailed discussion.

Anticipated Use of Bus

The proposed Stadium would initially (unless service was upgraded) be served by four RT routes (11, 15, 29, 33). Routes 11 and 15 operate on one-hour headways throughout most of day to serve Natomas and Del Paso Heights/Rio Linda. However, their weekday service ends by 8 or 9 PM, meaning that current operations would not provide opportunities for attendees to ride the bus after matches. Routes 29 and 33 are peak-period only.

However, since RT has pledged to work with the City and the Stadium to enhance transit (including bus) operations in response to demand, we estimate that 0.5 percent of MLS match attendees will travel by bus to/from the Stadium. This translates into 125 riders in each direction, which could be accommodated by four special event buses.

Anticipated Walking

The project site is located in zip code 95811, which extends northerly to the American River, southerly to the UPRR tracks, westerly to the Sacramento River, and easterly to 12th Street. The adjacent zip code to the south is 95814, which covers the CBD. These two zip codes represent the expected primary origins/destinations of walk trips. These zones comprise three percent of all Sacramento Republic FC season ticket holder residence zip codes. About 15 percent of all season tickets are registered to businesses or organizations, some of which are presumably located downtown. Thus, the catchment area for walk trips could include about five percent of all match attendees.

It is expected that some potential walk trips would instead use the Green line. This is particularly true for destinations to the south, in which it would be a ¾-mile walk from the 7th/K and 8th/K LRT Green line stations to a future station on 7th Street at Railyards Boulevard. Some attendees may choose to ride light rail versus walk that distance. In contrast, the Green line terminal station at Richards/Township 9 is located less than ½-mile north of a future Railyards/7th Street station. Other factors such as wait time, train crowding, and cost would also influence their mode choice.

Based on the above factors, we estimate that 1.5 percent of MLS match attendees will walk (as their primary mode of travel). It is important to note that this mode split represents the travel mode for the primary trip used to access the Stadium. There will be substantial numbers of pedestrians who will walk from remote lots and garages (after driving to them) to access the Stadium.

Anticipated Bicycling

The catchment area for bicycle trips to the proposed Stadium will be geographically larger than the walk trip catchment area. The majority of properties within zip codes 95811, 95814, 95816, 95833, and 95605 are within a four-mile bike ride of the proposed Stadium. These zones comprise eight percent of all season ticket holder residence zip codes. Thus, the number of attendees within the catchment area for bike trips to the proposed Stadium is considerable, and suggests that bicycling activity to/from the site is expected. Based on the above factors, we believe it is reasonable to expect about two percent of attendees (500 bicyclists) will bicycle to/from matches. It is important to note that this mode split applies only to weekday evening soccer matches. During weekends, west coast MLS soccer matches often begin in the afternoon, meaning that pre- and post-event bicycle travel would occur during daylight hours.

Table 1 displays the expected mode split for the proposed Stadium under baseline conditions. As shown, 90 percent of MLS match attendees are anticipated to travel to the proposed Stadium by automobile.

Table 1 – Proposed Stadium Mode Split – Baseline Conditions					
Peak Hour	Primary Travel Mode				
	Auto	Light Rail	Bus	Walk	Bike
Pre-Event / Post-Event	90%	6%	0.5%	1.5%	2%
Notes: Refer to pages 7-9 for analysis methodologies used to estimate mode split.					

It is anticipated that the mode split would change significantly under cumulative conditions due to a variety of factors. The Green line is planned to extend northerly from its current terminus to serve the Natomas area and beyond. Additional bicycle facilities are planned including a two-way cycle track on 12th Street. Development of the Railyards Specific Plan is assumed to occur under cumulative conditions, which provides numerous opportunities for shorter trips from businesses, retail/restaurant establishments, and residences. The mode split under cumulative conditions will be presented in future memorandum.

VI. Trip Generation Characteristics

The proposed Stadium's weekday pre-event peak hour trip generation is calculated based on the auto mode split, percentage of attendees arriving during the pre-event peak hour, and AVO. **Table 2** indicates that the proposed Stadium would generate approximately 7,060 inbound trips and 235 outbound trips during the pre-event peak hour.

Table 2 – Pre-Event Vehicular Trip Generation of Proposed Stadium – Baseline Conditions				
Land Use	Quantity	Pre-Event Peak Hour (6:30-7:30 PM)		
		Inbound	Outbound	Total
Stadium	25,000 Attendees - Auto Mode Split (90%) [1] - Average Vehicle Occupancy (2.23) [2] - Percent Arriving During Pre-Event Peak Hour (70%) [2]	7,063	-	-
	Outbound trips [3]	-	235	
	Pre-Event Peak Hour Trip Generation	7,063	235	7,298
Notes: [1] Refer to Section V for mode split estimates. [2] Refer to Section II for AVO and arrival characteristics for analogous Sacramento Republic FC match. [-3] One outbound trip (i.e., deliveries, employee/attendee drop-offs, uber/taxi) for every 30 inbound trips based on data from analogous Sacramento Republic FC match.				

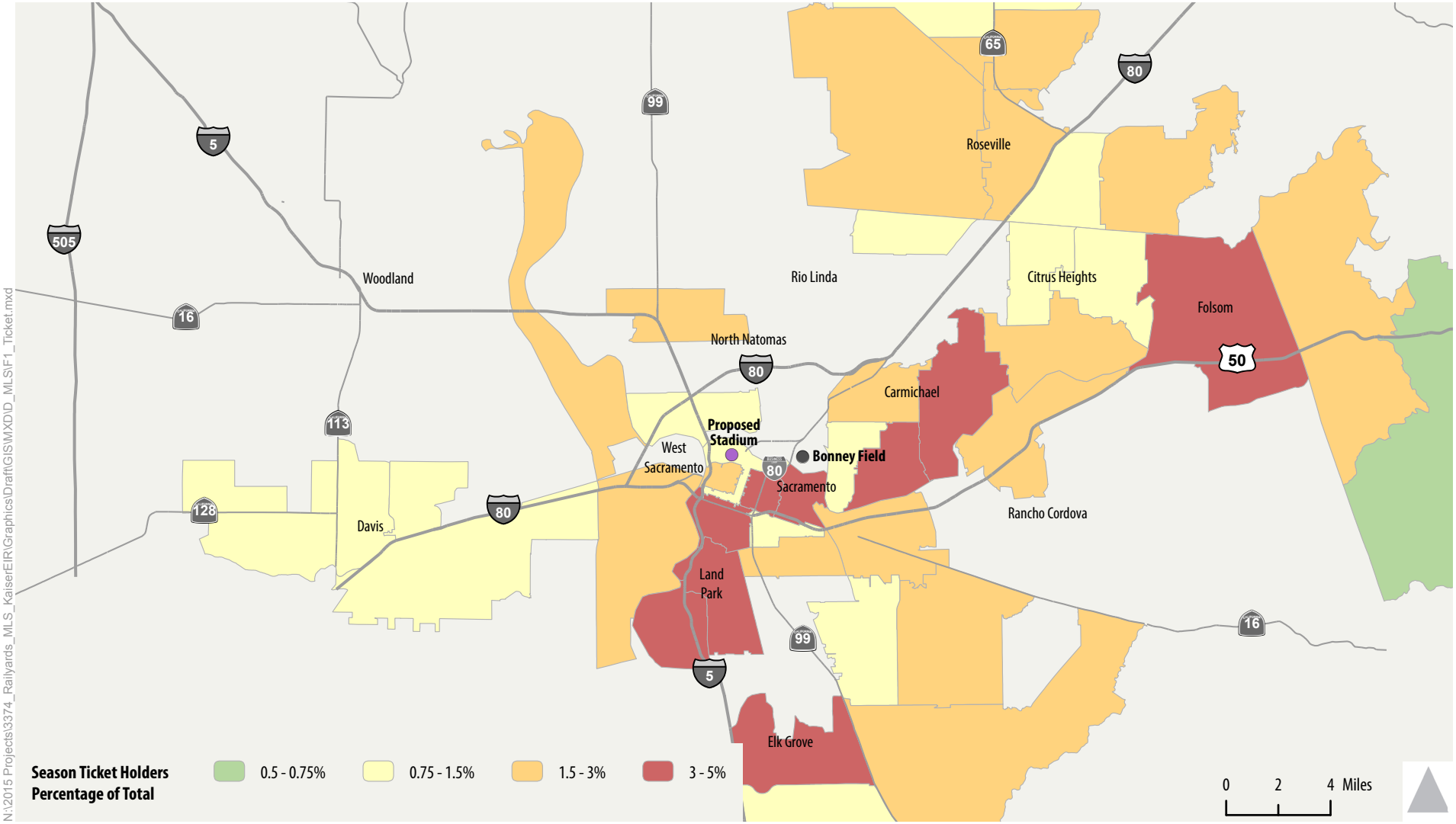
VII. Trip Distribution Characteristics

The pre-event peak hour trips would be distributed in accordance with Figure 3, which displays the trip origins of Sacramento Republic FC attendees based on the cell phone data.

VIII. Vehicle Trip Assignment

The SACMET model will be used to assign vehicle trips through the study intersections and freeway facilities in accordance with the following steps:

1. Project trips will be assigned into various garages, surface lots, and available on-street spaces based on the amount of available parking in each facility, location of each facility (relative to trip origin and Stadium), and walk distance. The assignment process will consider the origin/destination of trips (i.e., trips from the north will likely park north of the Stadium).
2. A trip table (matrix) is created that assigns inbound and outbound vehicle trips between the TAZs (shown in Figure 3) and a series of newly created TAZs that represent parking at Stadium.
3. The SACMET travel forecasting model assigns project trips to various freeways and surface streets. This process allows for the traffic model to keep account of the volume and routing of trips. These trips are then added to the "Baseline No Project" scenario to yield the "Baseline Plus Stadium" scenario. We will review the trip assignment patterns for reasonableness (i.e., congested ramps and other bottlenecks). If necessary, we will reroute trips to shorter paths.

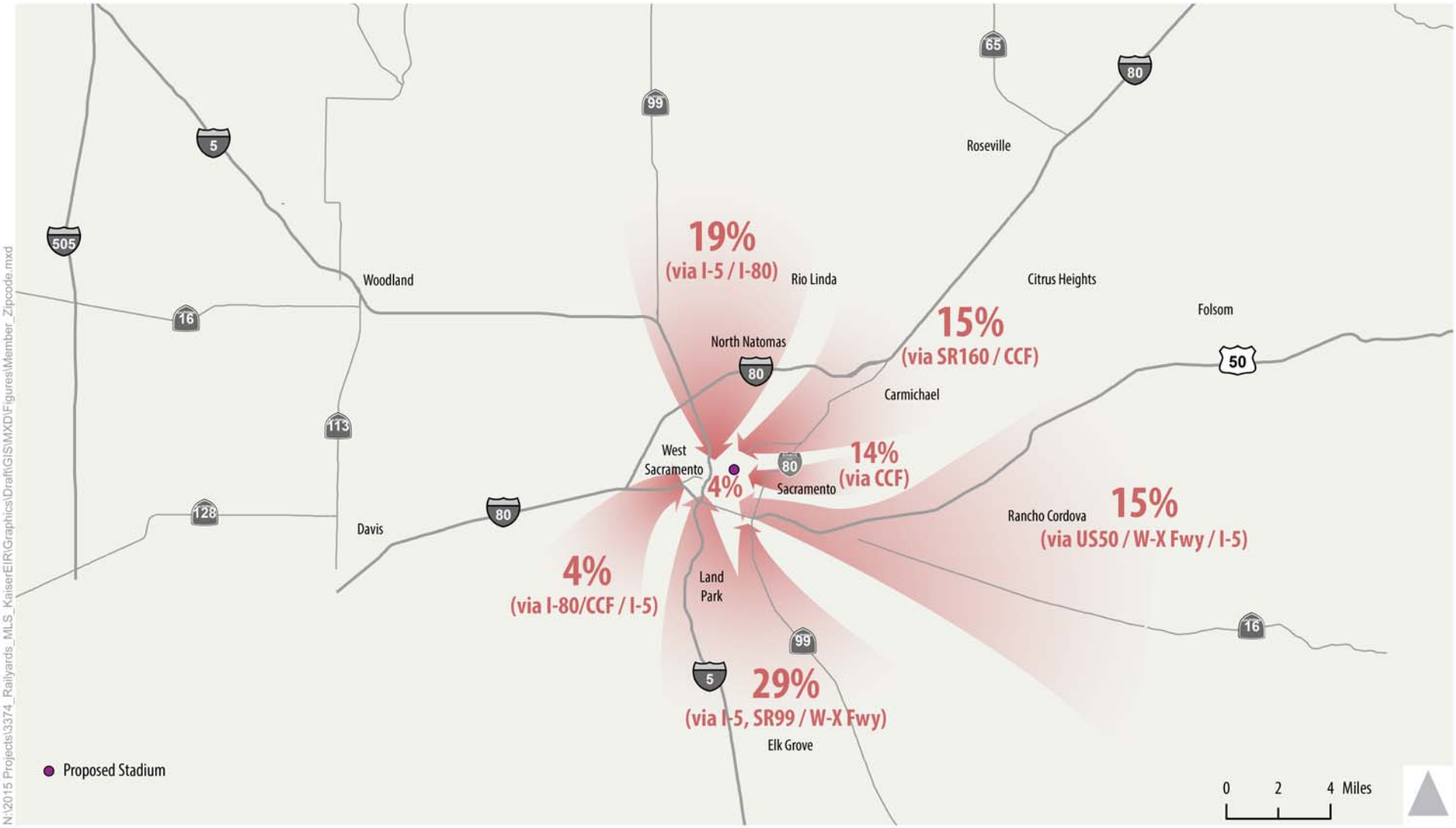


Notes:

1. According to the Sacramento Republic FC, about 2/3 of seats at the 12,000-seat Bonney Field facility were reserved by season ticket holders during the 2015 season. This exhibit displays anonymous zip code data for the approximately 6,687 personal (non-business) season ticket holders.
2. Zip codes data provided represent 83% of all season ticket holders.

Figure 1

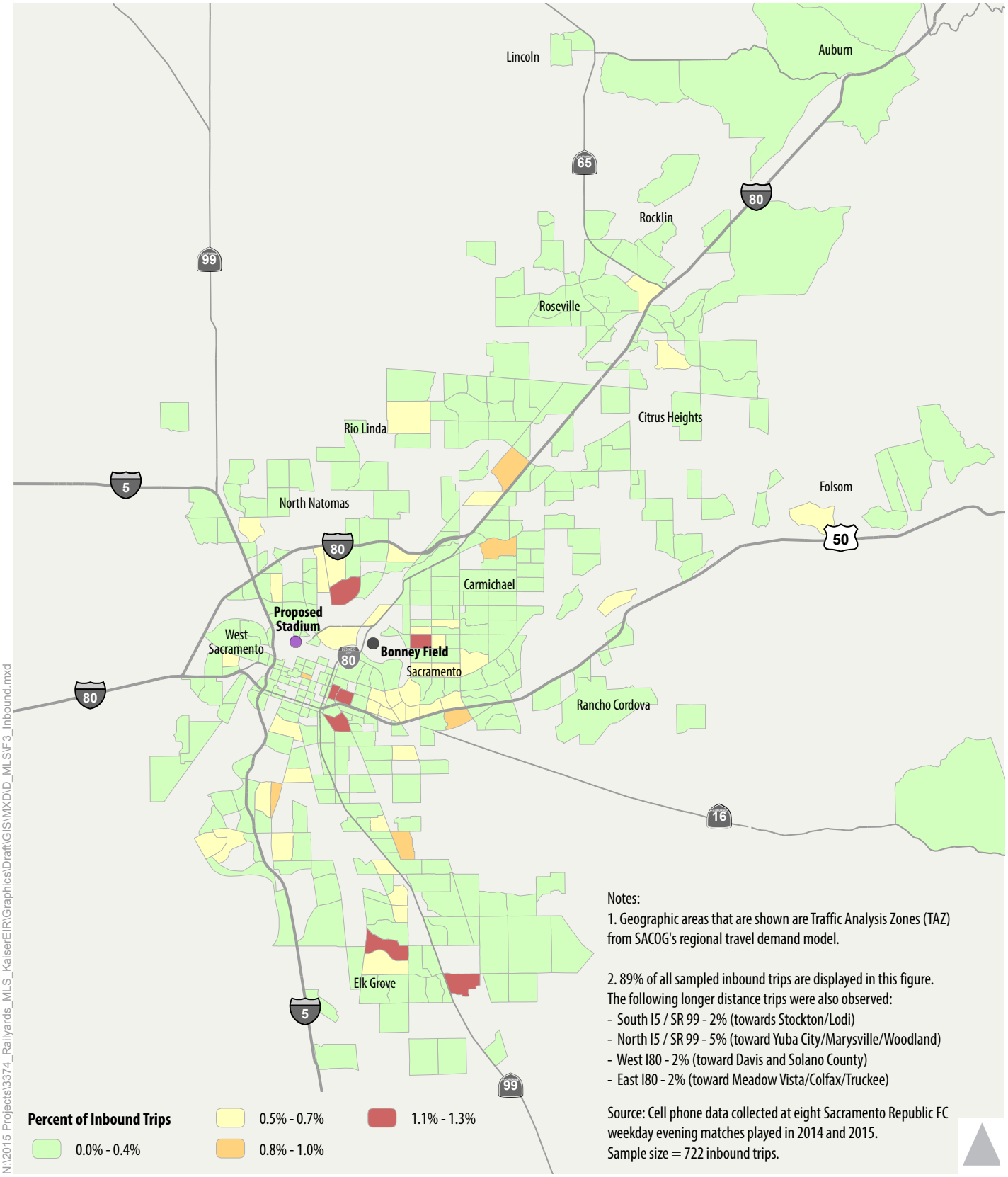
Sacramento Republic FC Season Ticket Holder Residence Zip Codes



Note:
1. "via ___" represents likely freeway(s) used for travel.
2. CCF - Captital City Freeway
3. W-X Fwy - US50 freeway segment between I-5 and SR99.

Figure 2

Sacramento Republic FC Season Ticket Holder Directionality of Travel to Proposed Stadium



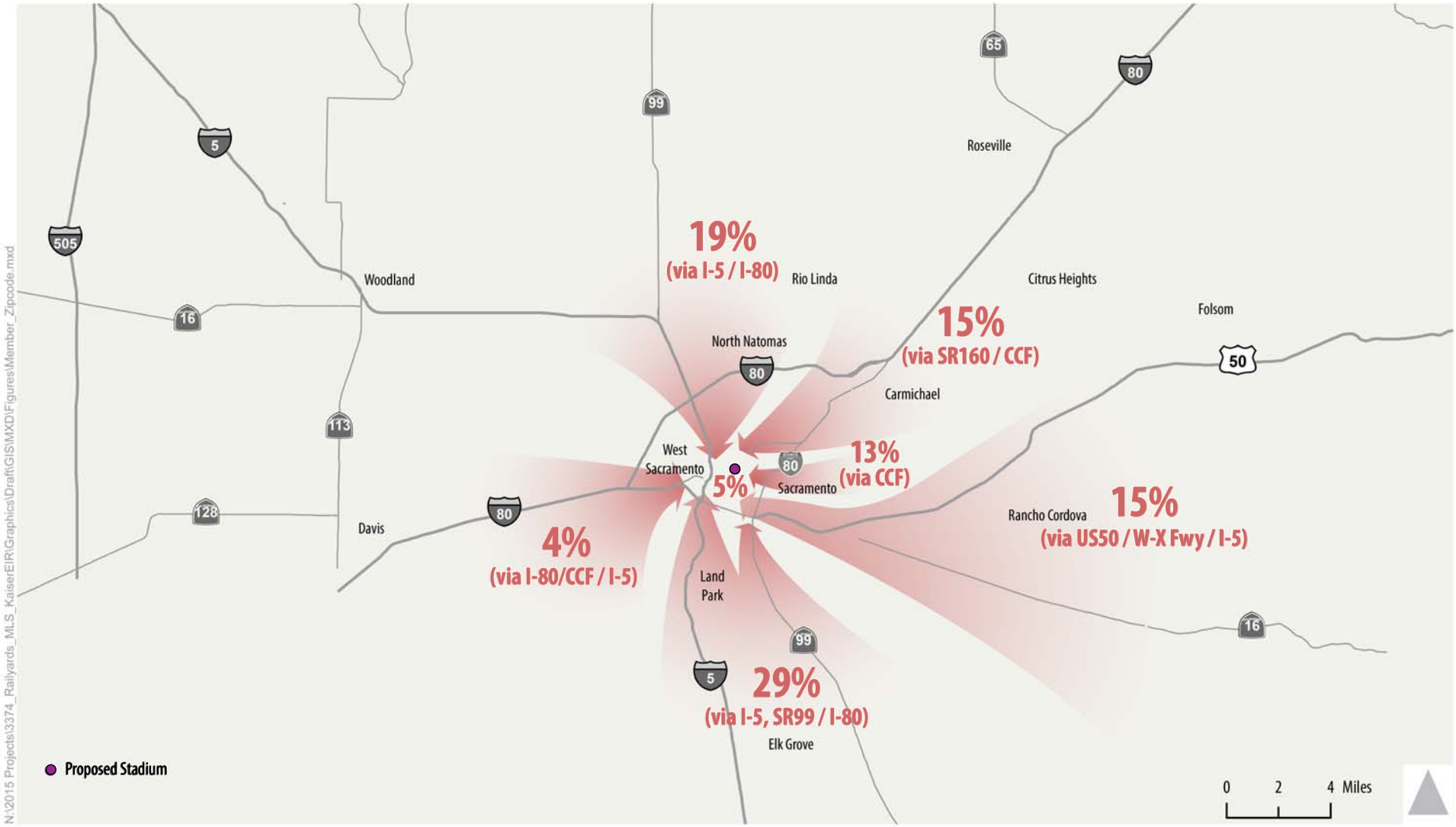
Notes:
1. Geographic areas that are shown are Traffic Analysis Zones (TAZ) from SACOG's regional travel demand model.

2. 89% of all sampled inbound trips are displayed in this figure. The following longer distance trips were also observed:
- South I5 / SR 99 - 2% (towards Stockton/Lodi)
- North I5 / SR 99 - 5% (toward Yuba City/Marysville/Woodland)
- West I80 - 2% (toward Davis and Solano County)
- East I80 - 2% (toward Meadow Vista/Colfax/Truckee)

Source: Cell phone data collected at eight Sacramento Republic FC weekday evening matches played in 2014 and 2015.
Sample size = 722 inbound trips.

Figure 3

Trip Origins for Sacramento Republic FC Soccer Matches - Inbound Travel to Bonney Field

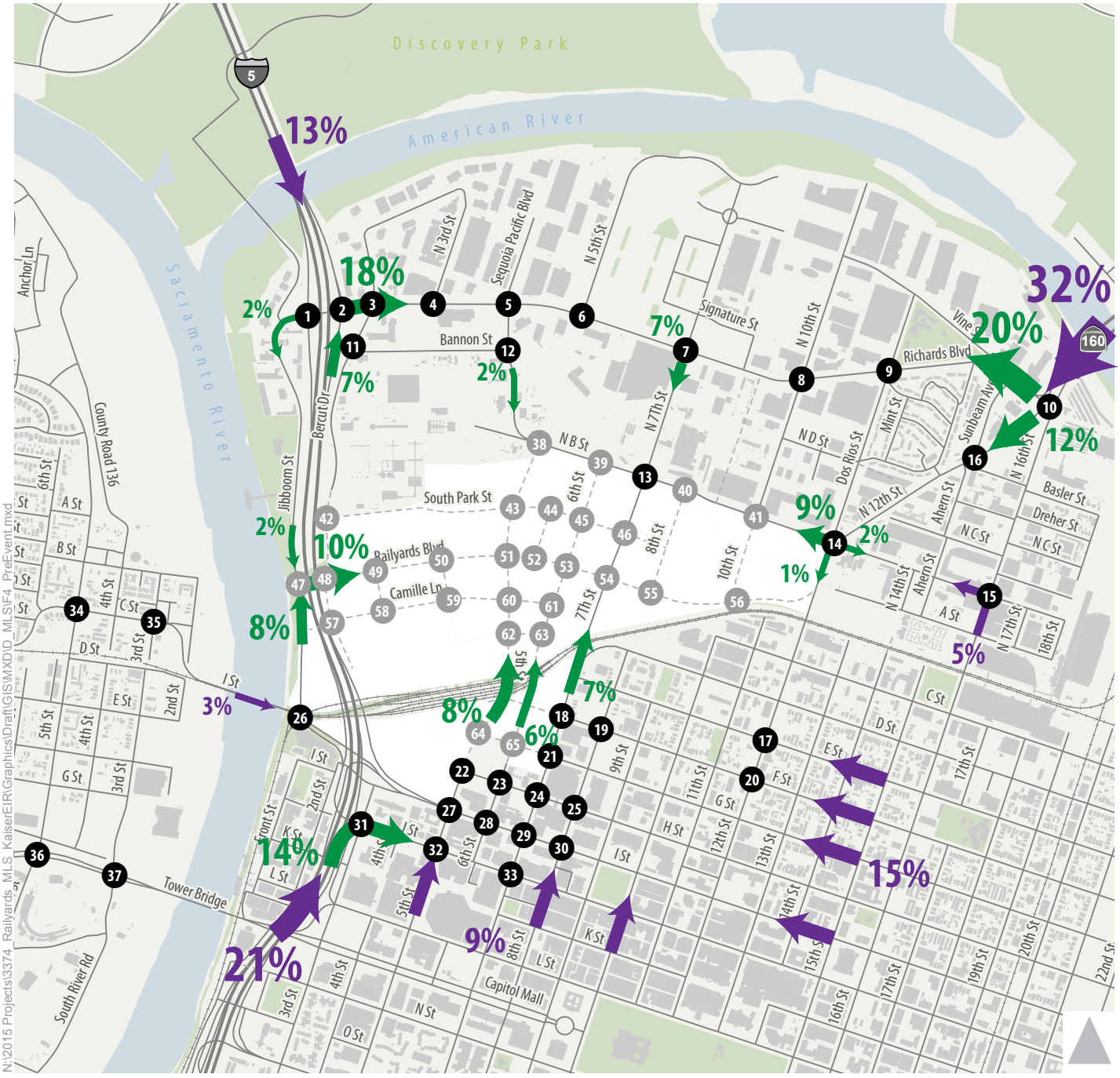


Note:
1. "via ___" represents likely freeway(s) used for travel.
2. CCF - Captital City Freeway
3. W-X Fwy - US50 freeway segment between I-5 and SR99.

Source: Cell phone data collected at eight Sacramento Republic FC weekday evening matches played in 2014 and 2015. Sample size = 722 inbound trips.

Figure 4

Regional Inbound Travel Patterns to Proposed Stadium



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Study Intersections

- Future Intersections
- Existing

- Future Planned Roadway (within Railyards Specific Plan)
- External Cordon Trip Distribution Percentage*
- Internal Trip Distribution Percentage

Notes:
Trips assigned to available parking as follows:
- Within Railyards Specific Plan: 39%
- North of Railyards Specific Plan:47%
- South of Railyards Specific Plan: 14%

*Sums to 98% due to rounding and limited number of downtown "drive" trips

Figure 4.12-1

Distribution of Pre-Event Trips to Proposed Stadium - Baseline Plus Project Conditions

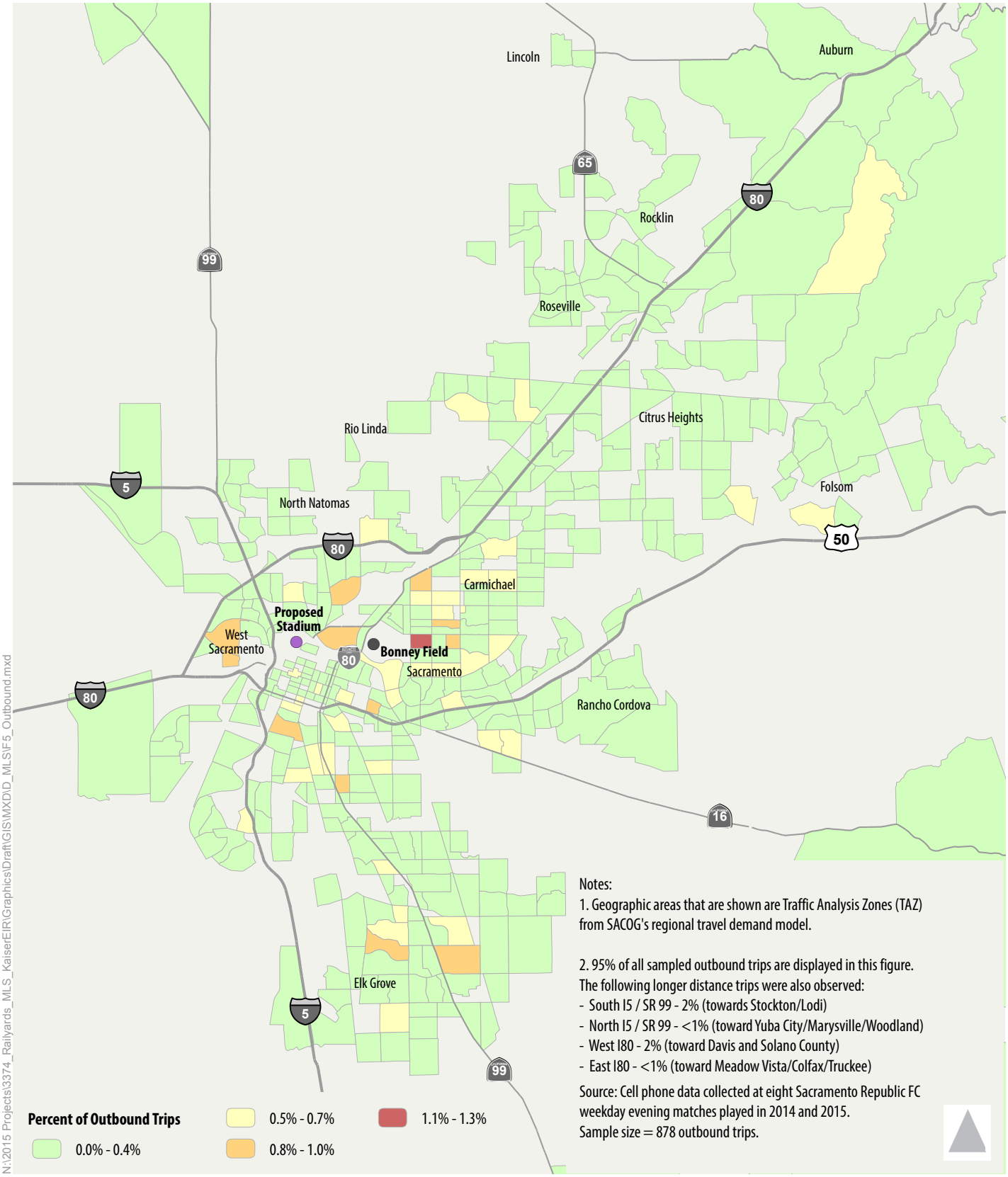
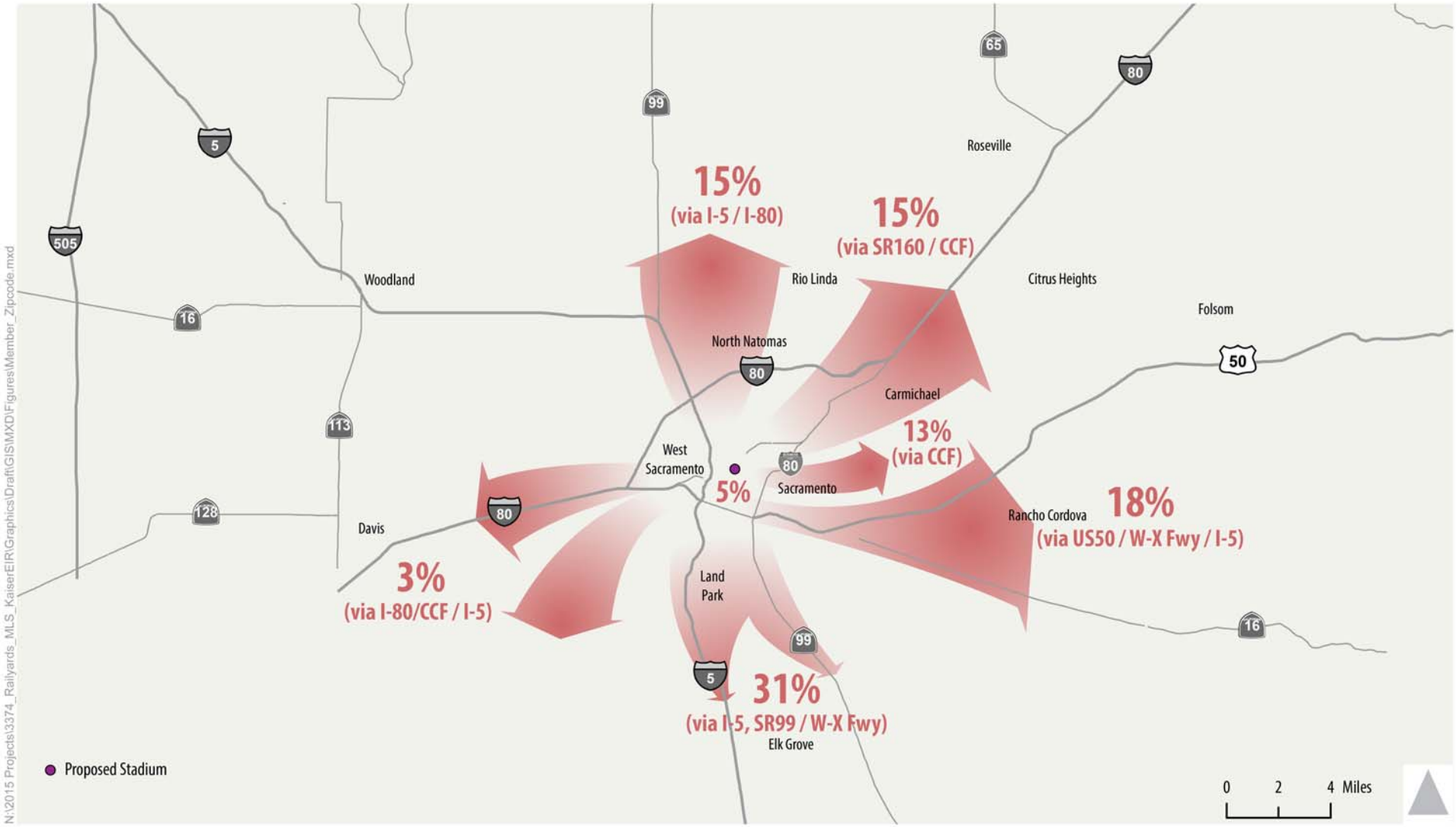


Figure 5

Trip Destinations for Sacramento Republic FC Soccer Matches - Outbound Travel from Bonney Field

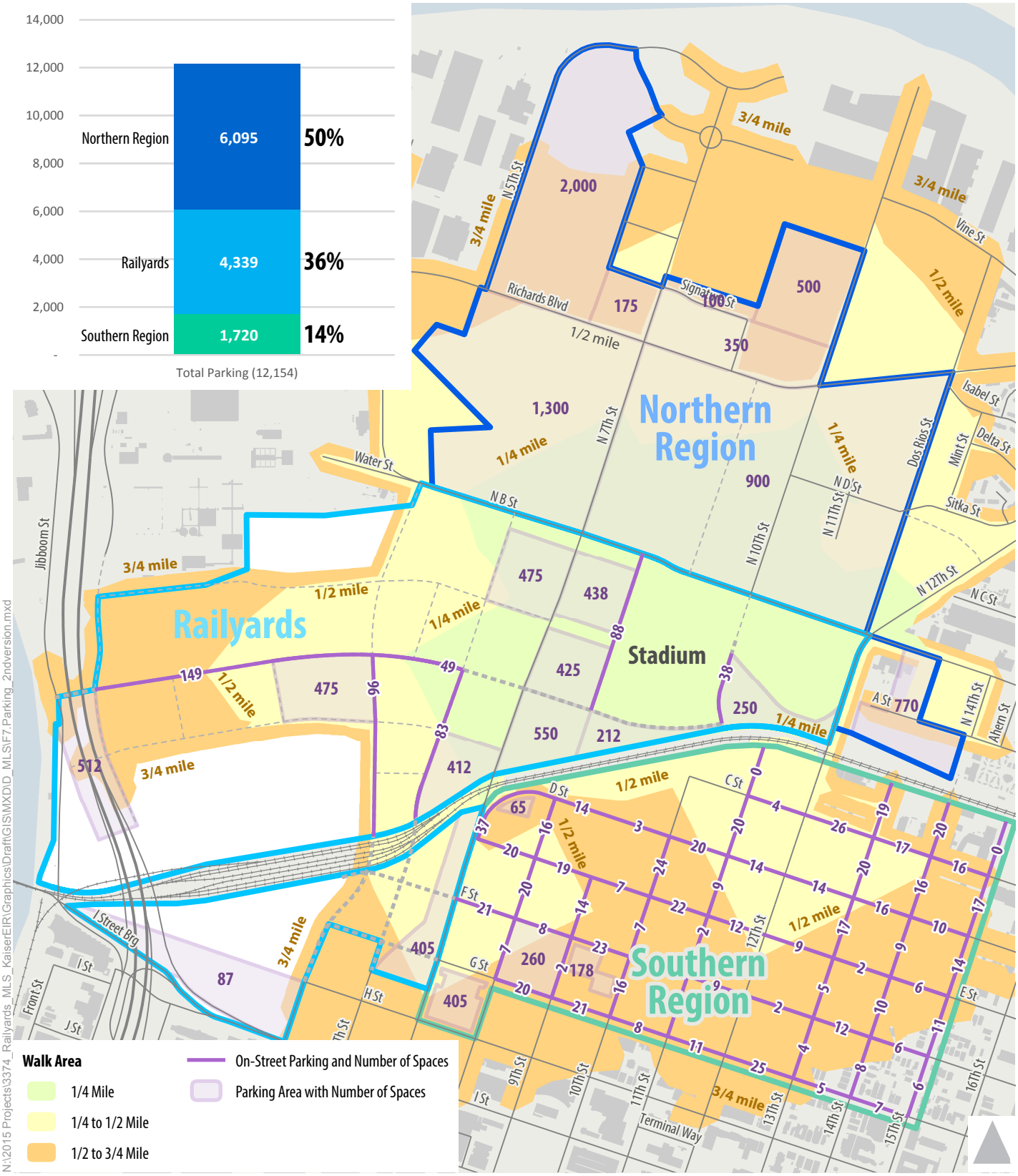


Note:
1. "via ___" represents likely regional freeway(s) used for travel.
2. CCF - Captitol City Freeway
3. W-X Fwy - US50 freeway segment parallel to W and X St.

Source: Cell phone data collected at eight Sacramento Republic FC weekday evening matches played in 2014 and 2015. Sample size = 878 outbound trips.

Figure 6

Regional Outbound Travel Patterns from Proposed Stadium



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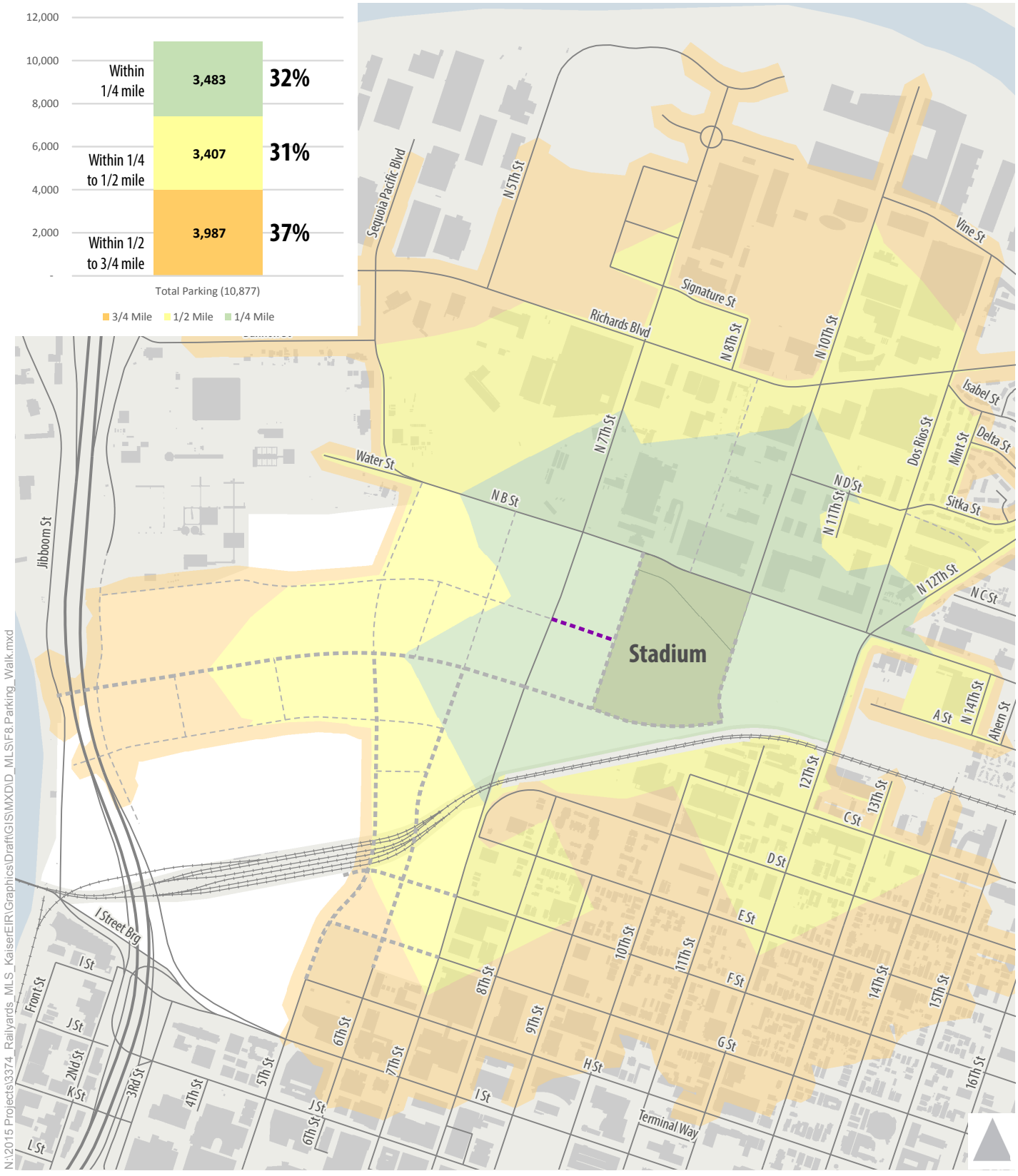
1. Available parking in existing lots/garages and on-street based on field observations conducted by Fehr & Peers between 6:30 and 7:30 PM on weekdays in December 2015.
2. Walk distances based on street network connectivity.
3. Available parking on designated vacant parcels in the Railyards Specific Plan Update based on acreage and assumption of 125 spaces per acre.
4. Available parking north of Railyards Specific Plan Update based on properties targeted for potential parking, and subjected to aerial imagery inspection of portion of property that is vacant. Unit value of 125 spaces per acre of vacant property assumed.

Figure 7

Available Parking in Vicinity of Proposed Stadium



Distance from Stadium

Within 1/4 mile

Within 1/4 to 1/2 mile

Within 1/2 to 3/4 mile

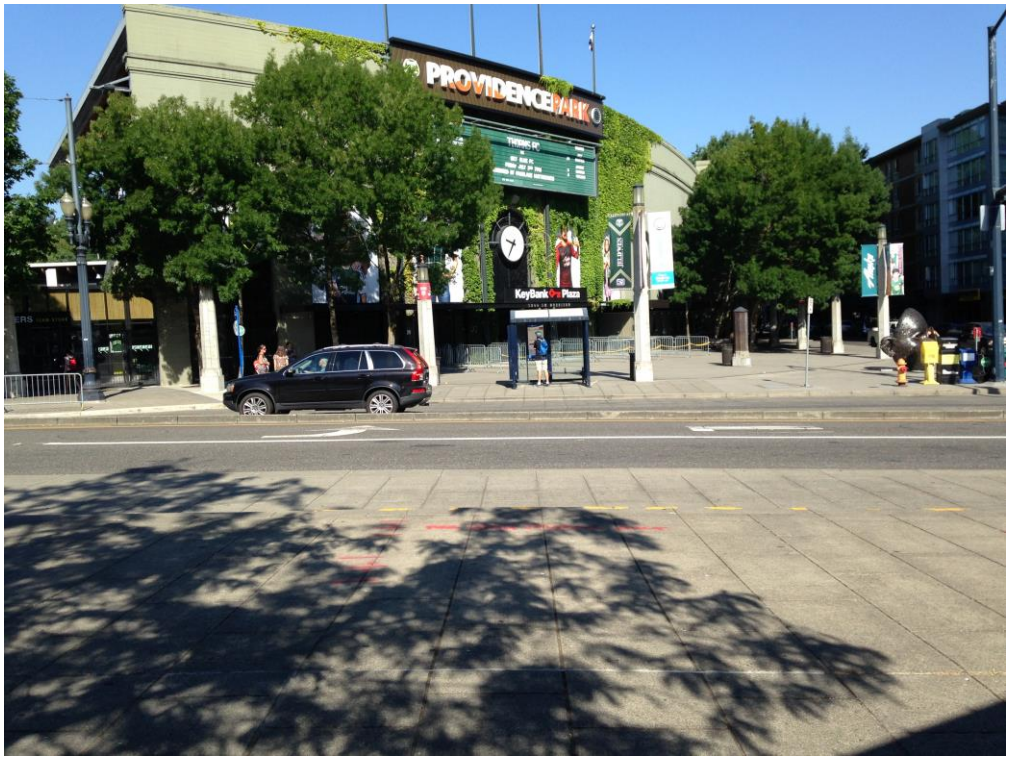
Assumed Pedestrian Access to be Built with Stadium

Note: Walk distance measured to nearest corner of stadium.

Figure 8

Available Parking Within Given Walk Distance of Proposed Stadium

Appendix A – Photographs of Providence Park (Portland, Oregon)



Entrance to Providence Park from 14th Street

Bus stop on 14th Street

Bike parking during Portland Thorns (female league) match

Pedestrian activity along Morrison Street during Portland Thorns (female league) match

Light rail station at Providence Park

Pedestrians walking from light rail station to Providence Park during Portland Thorns match

FEHR PEERS

FINAL TECHNICAL MEMORANDUM #4

Date: January 22, 2016

To: Pelle Clarke & Samar Hajeer – City of Sacramento

From: John Gard – Fehr & Peers

Subject*: *Travel Characteristics of Proposed Railyards Specific Plan Update

RS15-3374

This memorandum presents the anticipated travel characteristics of the proposed Railyards Specific Plan Update (RSPU) under baseline and cumulative conditions. A separate memo will be prepared to document the expected travel characteristics of the 2007 Railyards Specific Plan, which would serve as the 'no project' scenario under cumulative conditions.

This memorandum is organized into the following sections:

I. Proposed Railyards Specific Plan Update Land Uses and Employment
II. RSPU Trip Generation – Baseline Conditions
III. RSPU Trip Generation – Cumulative Conditions
IV. RSPU Trip Distribution/Assignment Methods

I. Proposed Railyards Specific Plan Update Land Uses and Employment

According to the most recent project site plan (Sacramento *Railyards – Land Use Option 1*, AECOM, December 21, 2015), the RSPU would consist of the following land uses:

- 3,857,027 square feet of office space
- 514,270 square feet of retail space
- 771,405 square feet of flexible mixed-use space [1]
- Kaiser Medical Center (658,000 square feet of hospital and 510,000 square feet of medical-office) [2]
- 6,000 multi-family dwelling units [3]
- 1,100 hotel rooms
- Major League Soccer (MLS) Stadium
- 485,390 square feet of historical and cultural space consisting of 162,525 square feet of retail, 142,865 square feet of flex space[1], and a 180,000 square-foot museum.

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1 Assumed to consist of 75 percent office and 25 percent retail per December 17, 2015 e-mail from Ms. Teresa Haenggi with the City of Sacramento Community Development Department.

2 Excludes the 60,000 square-foot Central Utility Plant (CUP) that generates little or no trips.

3 An email from Brian Boxer of ESA on January 21, 2016 confirmed that all residential would be multi-family, attached units.

The non-residential uses would consist of the following totals by land use type:

- 4,542,730 square feet of office space
- 905,362 square feet of retail space
- 658,000 square feet hospital space
- 510,000 square feet of medical-office space
- 180,000 square-foot museum

The total non-residential land uses (excluding the Stadium) sum to 6,796,092 square feet.

Table 1 shows the employment associated with the non-residential uses.[4] As shown, during typical weekdays when an MLS match is not being played, approximately 22,900 employees would work within the RSPU. An additional 460 employees would be present during days in which an MLS match is being played. The project would have a jobs-housing ratio of 3.8, which implies the vast majority of workers will be imported from external destinations (i.e., versus live within the RSPU).

Table 1: Employment Within Railyards Specific Plan Update

Land Use	Quantity (square feet)	Employee Ratio	Employees	
			Weekdays Without an MLS Match	Weekdays With an MLS Match
Office	4,542,730	1 per 300 square feet [1]	15,142	15,142
Retail	905,362	1 per 400 square feet [1]	2,263	2,263
Medical Center	1,168,000	1 per 275 square feet [2]	4,247	4,247
Museum	180,000	1 per 1,500 square feet [3]	120	120
Hotel	1,100 rooms	1 per room	1,100	1,100
Stadium	N / A	N / A [4]	30	490
		Total	22,902	23,362

Notes:
[1] Based on employment yields from *Railyards Specific Plan EIR* (2007).
[2] Based on input provided in an email from Matthew Pruter of ESA dated 1/4/2016, which was based on ESA's studies of employment density at other Kaiser Medical Center facilities.
[3] Based on input provided by ESA in an email from Brian Boxer dated 1/4/2016, which was based on ESA's studies of employment density at other museums.
[4] Based on input provided by ESA in an email from Brian Boxer dated 12/22/2015, which is based on data from Convention Sports & Leisure International who is working on behalf of the applicant.

[4] While this information is not used directly in the transportation impact study, it is used when calculating Vehicle Miles of Travel (VMT) per capita or employee.

II. RSPU Trip Generation – Baseline Conditions

This section presents the estimated trip generation of the RSPU under baseline conditions. However, prior to doing so, a discussion regarding the expected mode split for residents, employees, and retail patrons in transit-oriented developments (TODs) and in downtown Sacramento is presented for context.

Travel Characteristics of TODs

A substantial amount of research has been conducted on the topic of TOD travel behavior. This section highlights the key findings of several research studies that are applicable to the proposed project's travel characteristics. A 2004 research paper entitled "*Travel Characteristics of Transit-Oriented Development in California*" by Cervero, Lund, and Willson analyzed travel behavior of TOD residents, employees, and retail patrons at various TODs located on transit (heavy rail, light rail, and commuter rail) lines in Northern and Southern California. The following summarizes some key findings from that research:

- A total of 624 completed surveys of TOD residents were obtained from 26 different stations. The following summarizes their self-reported transit use (either bus or rail):
  - Home-Based Work Trips: 26.5% via bus or rail
  - Home-Based Non-Work Trips: 8.1% via bus or rail

- A total of 877 completed surveys of TOD employees were obtained from 10 different stations. Transit (either rail or bus) was indicated as the primary commute mode by 18.8% of the surveyed TOD employees.

- Surveys of 1,237 retail patrons were conducted at three major transit-focused shopping centers along the Los Angeles Metro, BART, and San Diego Trolley lines. Approximately 20 percent of those surveyed indicated that they had used transit (either bus or rail) to access the site.

The Cervero, Lund, and Willson (2004) research found that levels of transit usage varied significantly by region and rail type. In general, TODs located closer to central business district or adjacent to rail systems with more frequent headways tended to have greater levels of ridership.

Downtown Sacramento Mode Split

According to the 2010 Census, residents of Sacramento's Central City have the following journey-to-work mode splits:

- 15% walk
- 8% bike
- 7% transit

The walk/bike share of non-commute trips is likely higher. This data suggests that downtown residents may have a non-auto mode split of at least 30 percent. Exhibit 3-19 in Chapter 3 of the *Highway Capacity Manual* (2010) displays the transit share of downtown commuters for several large metropolitan areas.[5] These data, derived from Commuting in America III adapted from Commuting to Downtown in America: Census 2000 report to the Transportation Research Board Subcommittee on Census Data for Transportation Planning 2005, show 12 percent of commuters heading into downtown Sacramento chose transit.[6]

MXD+ Trip Generation Tool

The internalization of trips within the project site was estimated using a Mixed-Use Trip Generation Model (MXD), which was developed for the US Environmental Protection Agency (EPA) to estimate internal trip-making and external trips by non-auto travel modes. This model was developed by consultants and academic researchers to more accurately estimate the external vehicular trip generation of mixed-use land development projects than prior methods (e.g., ITE internalization spreadsheet). The model was developed based on empirical evidence at 240 mixed-use projects located across the U.S. The model considers various built environment variables such as land use density, regional location, proximity to transit, and various design variables when calculating the project's internal trips, and external trips made by auto, transit, and non-motorized modes. The MXD model has been applied in numerous EIRs throughout California. **Appendix A** to this memo contains MXD+ model output for the RSPU under baseline and cumulative conditions.

Table 2 displays the daily, AM peak hour, and PM peak hour trip generation of the proposed project under baseline conditions. It should be noted that the internalization and non-auto external mode split percentages do not apply equally to all land use types. These percentages represent the overall level of reductions based on the MXD+ model results. Some uses, such as office and residential, would have greater reduction levels than others, such as the retail and medical center.

No pass-by reductions have been made because the MXD+ modeling is calibrated to total external trips (including new and pass-by). Accordingly, further reductions for pass-by are not warranted.

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5 Transportation Research Board, 2010. *Highway Capacity Manual.* December 2010. pp. 3-26.

6 Transportation Research Board, 2006. *Commuting in America III, The Third Report on Commuting Patterns and Trends.* p. 94.

Table 2: Peak Hour and Daily Trip Generation of Railyards Specific Plan Buildout – Baseline Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	N / A	1,168 ksf	14,418	14,418	28,836	1,624	432	2,056	771	1,729	2,500
Office	710	4,542.7 ksf	25,053	25,053	50,106	6,237	850	7,087	1,151	5,618	6,769
Retail	820	905.4 ksf	26,708	26,708	53,416	746	456	1,204	2,173	2354	4,527
Multi-Family Residential	232	6,000 units	12,540	12,540	25,080	388	1,652	2,040	1,414	866	2,280
Hotel	310	1,100 rooms	4,494	4,494	8,988	344	239	583	337	323	660
Museum	580	180 ksf	800	800	1,600	138	22	160	17	87	104
Stadium [2]	N / A	N / A	100	100	200	20	0	20	0	20	20
Gross Trips			84,113	84,113	168,226	9,497	3,651	13,150	5,863	10,997	16,860
Reduction for Internal Trips [3] (12.7% Daily / 17.7% AM / 19.8% PM)			-10,682	-10,682	-21,365	-1,681	-646	-2,328	-1,161	-2,177	-3,338
Shift to Transit Trips [3] (7.3% Daily / 12.8% AM / 12.7% PM)			-6,140	-6,140	-12,280	-1,216	-467	-1,683	-745	-1,397	-2,141
Shift for Walk/Bike [3] (11.9% Daily / 14.5% AM / 11.0% PM)			-10,009	-10,009	-20,019	-1,377	-529	-1,907	-645	-1,210	-1,855
Net External Vehicle Trips			57,281	57,281	114,562	5,223	2,008	7,233	3,313	6,213	9,526

Notes:
[1] Gross trip rates based on *Trip Generation Manual* (Institute of Transportation Engineers, 2012) for all land uses with the exception of the medical center whose trip generation was based on measured trip rates at the Kaiser Morse Avenue facility. Trip rates for office space based on weighted average rate given amount of office space. Trip rates for retail based on fitted curve equation for typical size of 150,000 square-foot retail center.
[2] For this typical weekday condition scenario, no MLS match assumed at proposed stadium. Assumed trips are associated with modest levels of on-site employees (administrative, janitorial, etc.).
[3] Internal trips, and external trips made by transit, walking, and bicycling based on MXD+ model output (see previous page).
Source: Fehr & Peers, 2015.

Table 2 shows that between 13 and 20 percent of project trips (depending on the analysis period) are expected to remain internal to the site. The use of transit varies from 7 to 13 percent of project trips (depending on the analysis period). External travel by walk and bike varies from 11 to 15 percent of project trips (depending on the analysis period). The RSPU (assuming a MLS match is not being played) would generate approximately 114,600 external daily trips, 7,230 AM peak hour trips (72 percent inbound), and 9,530 PM peak hour trips (65 percent outbound).

Under Baseline Plus Stadium (Only) conditions, it is estimated that 90 percent of game attendees would drive to the facility. However, with buildout of the RSPU, opportunities for walking and bicycling would increase substantially due to new nearby land uses. Accordingly, the walk/bike mode split of Stadium attendees is estimated to modestly increase from 3.5 percent (Stadium-only) to 6 percent (Stadium and buildout of RSPU). For a baseline condition analysis, it is not reasonable to assume a substantial redistribution of soccer match attendees to new housing (or employment centers) near the Stadium. Such activity, while likely, would take place over a number of years.

Table 3 displays the RSPU buildout trip generation during the pre-event peak hour assuming an MLS game is being played. The RSPU (assuming a MLS match is being played) would generate approximately 8,320 inbound trips and 2,960 outbound trips during the pre-event peak hour.

Table 3: Pre-Event Peak Hour Trip Generation of RSPU with MLS Match – Baseline Conditions

Land Use	Quantity	Net External Vehicle Trips [1]		
		In	Out	Total
Medical Center Office Retail Multi-Family Residential Hotel Museum	1,168 ksf 4,542.7 ksf 905.4 ksf 6,000 units 1,100 rooms 180 ksf	1,456	2,734	4,190
Stadium [2]	N / A	6,866	229	7,095
Total Net External Vehicle Trips		8,322	2,963	11,285

Notes:
[1] Net external vehicle trips during pre-event peak hour for non-Stadium uses represents 44 percent of the trips generated by these uses during the PM peak hour. This 0.44 factor is based on existing traffic volumes during the weekday pre-event peak hour versus PM peak hour observed on segments of I Street, J Street, 5th, 7th, 12th, and 16th Streets.
[2] Sold-out 25,000-person MLS match with 7:30 PM start time assumed at proposed stadium. Vehicle mode split estimated to be 87.5%.
Source: Fehr & Peers, 2015.

Table 4 presents the estimated external daily trip generation of the RSPU on a weekday when an MLS match is being played.

Table 4: Daily Trip Generation of RSPU with MLS Match – Baseline Conditions				
Land Use	Quantity	Net External Vehicle Trips [1]		
		In	Out	Total
Medical Center Office Retail Multi-Family Residential Hotel Museum	1,168 ksf 4,542.7 ksf 905.4 ksf 6,000 units 1,100 rooms 180 ksf	57,281	57,281	114,562
Stadium [2]	Attendees	10,137	10,137	20,274
	Employees	418	418	836
Total Net External Vehicle Trips		67,836	67,836	135,672

Notes:
[2] Sold-out 25,000-person MLS match at proposed stadium. Vehicle mode split estimated to be 87.5%. MLS match assumed to have 460 employees with an average vehicle occupancy of 1.1 employees (and conservatively assuming all drive to the site).
Source: Fehr & Peers, 2015.

III. RSPU Trip Generation – Cumulative Conditions

This section presents the estimated trip generation of the RSPU under cumulative conditions.

Table 5 displays the daily, AM peak hour, and PM peak hour trip generation of the proposed project under cumulative conditions. As noted in the table, the daily trip generation totals do not assume an MLS match is being played. Daily trips associated with an MLS match are presented later in this section.

Table 5 shows that between 13 and 18 percent of project trips (depending on the analysis period) are expected to remain internal to the site. The use of transit varies from 8 to 14 percent of project trips (depending on the analysis period). External travel by walk and bike varies from 15 to 19 percent of project trips (depending on the analysis period).

Table 6 displays the expected mode split of attendees to the proposed Stadium under cumulative conditions. This table indicated greater levels of transit, bike, and pedestrian usage consistent with enhanced transit service and nearby walkable destinations.

Table 7 displays the RSPU buildout trip generation during the pre-event peak hour assuming an MLS game is being played.

Table 5: Peak Hour and Daily Trip Generation of Railyards Specific Plan Buildout – Cumulative Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	N / A	1,168 ksf	14,418	14,418	28,836	1,624	432	2,056	771	1,729	2,500
Office	710	4,542.7 ksf	25,053	25,053	50,106	6,237	850	7,087	1,151	5,618	6,769
Retail	820	905.4 ksf	26,708	26,708	53,416	746	456	1,204	2,173	2354	4,527
Multi-Family Residential	232	6,000 units	12,540	12,540	25,080	388	1,652	2,040	1,414	866	2,280
Hotel	310	1,100 rooms	4,494	4,494	8,988	344	239	583	337	323	660
Museum	580	180 ksf	800	800	1,600	138	22	160	17	87	104
Stadium [2]	N / A	N / A	100	100	200	20	0	20	0	20	20
Gross Trips			84,113	84,113	168,226	9,497	3,651	13,150	5,863	10,997	16,860
Reduction for Internal Trips [3] (12.5% Daily / 16.6% AM / 18.4% PM)			-10,514	-10,514	-21,028	-1,577	-606	-2,183	-1,079	-2,023	-3,102
Shift to Transit Trips [3] (7.8% Daily / 13.8% AM / 13.8% PM)			-6,561	-6,561	-13,122	-1,311	-504	-1,815	-809	-1,518	-2,327
Shift for Walk/Bike [3] (15.6% Daily / 19.0% AM / 14.6% PM)			-13,122	-13,122	-26,243	-1,804	-694	-2,499	-856	-1,606	-2,462
Net External Vehicle Trips			53,916	53,916	107,833	4,805	1,847	6,653	3,119	5,850	8,969

Notes:
[1] Gross trip rates based on *Trip Generation Manual* (Institute of Transportation Engineers, 2012) for all land uses with the exception of the medical center whose trip generation was based on measured trip rates at the Kaiser Morse Avenue facility. Trip rates for office space based on weighted average rate given amount of office space. Trip rates for retail based on fitted curve equation for typical size of 150,000 square-foot retail center.
[2] For this typical weekday condition scenario, no MLS match assumed at proposed stadium. Assumed trips are associated with modest levels of on-site employees (administrative, janitorial, etc.).
[3] Internal trips, and external trips made by transit, walking, and bicycling based on MXD+ model output.
Source: Fehr & Peers, 2015.

Table 6: Proposed Stadium Mode Split – Cumulative Conditions

Peak Hour	Primary Travel Mode				
	Auto	Light Rail	Bus	Walk	Bike
Pre-Event / Post-Event	83%	10%	1%	3%	3%

Notes: This mode split applies to conditions associated with RSPU buildout. Resulting auto mode of 83 percent is slightly lower than the 87.5% auto mode split under baseline conditions due to greater levels of transit usage corresponding to increased light rail service (i.e., green line extension to Natomas).

Table 7: Pre-Event Peak Hour Trip Generation of RSPU with MLS Match – Cumulative Conditions				
Land Use	Quantity	Net External Vehicle Trips [1]		
		In	Out	Total
Medical Center Office Retail Multi-Family Residential Hotel Museum	1,168 ksf 4,542.7 ksf 905.4 ksf 6,000 units 1,100 rooms 180 ksf	1,372	2,574	3,946
Stadium [2]	N / A	6,513	217	6,730
Total Net External Vehicle Trips		7,885	2,791	10,676

Notes:
[1] Net external vehicle trips during pre-event peak hour for non-Stadium uses represents 44 percent of the trips generated by these uses during the PM peak hour. This 0.44 factor is based on existing traffic volumes during the weekday pre-event peak hour versus PM peak hour observed on segments of I Street, J Street, 5th, 7th, 12th, and 16th Streets.
[2] Sold-out 25,000-person MLS match with 7:30 PM start time assumed at proposed stadium. Vehicle mode split estimated to be 83%.
Source: Fehr & Peers, 2015.

Table 8 presents the estimated external daily trip generation of the RSPU on a weekday when an MLS match is being played.

Table 8: Daily Trip Generation of RSPU with MLS Match – Cumulative Conditions				
Land Use	Quantity	Net External Vehicle Trips [1]		
		In	Out	Total
Medical Center Office Retail Multi-Family Residential Hotel Museum	1,168 ksf 4,542.7 ksf 905.4 ksf 6,000 units 1,100 rooms 180 ksf	53,916	53,916	107,833
Stadium [2]	Attendees	9,305	9,305	18,610
	Employees	418	418	836
Total Net External Vehicle Trips		63,639	63,639	127,279

Notes:
[2] Sold-out 25,000-person MLS match at proposed stadium. Vehicle mode split estimated to be 83% (see above text). MLS match assumed to have 460 employees with an average vehicle occupancy of 1.1 employees (and conservatively assuming all drive to the site).
Source: Fehr & Peers, 2015.

Table 9 compares the cumulative net external vehicular trip generation for the RSPU without and with an MLS Match during the AM, PM, and pre-event peak hours and on a daily basis. This table indicates that the MLS match would cause a 170 percent increase in the RSPU trip generation during the pre-event peak hour, and an 18 percent increase in the trip generation on a daily basis.

Table 9: Trip Generation Comparison – RSPU Without and With MLS Match

Time Period	Net External Vehicle Trips Under Cumulative Conditions	
	Without MLS Match	With MLS Match
Daily	107,833	127,279
AM Peak Hour	6,653	6,653
PM Peak Hour	8,969	8,969
Pre-Event Peak Hour	3,946	10,676

Notes:
Source: Fehr & Peers, 2015.

IV. Proposed RSPU Trip Distribution/Assignment Methods

We will update the base year version of the SACMET model to incorporate the RSPU roadway network (see Tech Memo #1) and land uses. The model will be used to assign vehicle trips through the study intersections and freeway facilities. The project not only includes new trip generating land uses, but also introduces new street connections that cause a redistribution of background traffic. We will review the trip assignment patterns for reasonableness (i.e., congested ramps and other bottlenecks). If necessary, we will reroute trips to shorter paths.

FEHR PEERS

DRAFT TECHNICAL MEMORANDUM #5

Date: February 5, 2016

To: Pelle Clarke & Samar Hajeer – City of Sacramento

From: John Gard – Fehr & Peers

Subject*: *Trip Generation of 2007 Railyards Specific Plan

RS15-3374

This memorandum presents the land uses, estimated employment levels, and trip generation of the 2007 Railyards Specific Plan ("2007 Plan"). This information is important to this study for several reasons. Since the Railyards Specific Plan Update EIR will be a subsequent EIR, it is being compared against the 2007 Plan EIR inputs, analysis methods, and results. Accordingly, the 'cumulative no project' scenario for this EIR is the 2007 Plan.

The *Railyards Specific Plan Draft EIR* (2007) presented trip generation information for the 'Maximum Office' and 'Maximum Residential' scenarios for cumulative (2030) conditions only. Since the technical analysis was based on the more conservative (i.e., greater trip generation) Maximum Office Scenario, it is presented here.

Table 1 shows the employment associated with the non-residential uses for the 2007 Plan (Maximum Office scenario).[1] As shown, the 2007 Plan would consist of approximately 14,140 employees. The project would have a jobs-housing ratio of 1.25, which represents a fairly balanced ratio.

Table 1: Employment Within 2007 Railyards Specific Plan (Maximum Office Scenario)

Land Use	Quantity (square feet)	Employee Ratio	Employees
Office	2,993,000	1 per 300 square feet [1]	9,977
Retail	1,566,000	1 per 400 square feet [1]	3,915
Other [2]	N / A	N / A [2]	250
		Total	14,142

Notes:
[1] Based on unit employment yields from *Railyards Specific Plan EIR* (2007).
[2] 2007 Railyards Specific Plan consisted of museum and performing arts center. Employment estimated as 120 museum employees (consistent with employment for 180,000 square-foot museum in RSPU), and 130 employees for performing arts center, which yields 250 total employees in this category.
Source: Fehr & Peers, 2016.

[1] While this information is not used directly in the transportation impact study, it is used when calculating Vehicle Miles of Travel (VMT) per capita or employee.

The internalization of trips within the project site was estimated using a Mixed-Use Trip Generation Model (MXD), which was developed for the US Environmental Protection Agency (EPA) to estimate internal trip-making and external trips by non-auto travel modes. This model was developed by consultants and academic researchers to more accurately estimate the external vehicular trip generation of mixed-use land development projects than prior methods (e.g., ITE internalization spreadsheet). The model was developed based on empirical evidence at 240 mixed-use projects located across the U.S. The model considers various built environment variables such as land use density, regional location, proximity to transit, and various design variables when calculating the project's internal trips, and external trips made by auto, transit, and non-motorized modes. The MXD model has been applied in numerous EIRs throughout California. **Appendix A** to this memo contains MXD+ model output for the 2007 Plan under cumulative conditions.

Table 2 displays the daily, AM peak hour, and PM peak hour trip generation of the 2007 Plan under cumulative conditions. It should be noted that the internalization and non-auto external mode split percentages do not apply equally to all land use types. These percentages represent the overall level of reductions based on the MXD+ model results. Some uses, such as office and residential, would have greater reduction levels than others. No pass-by reductions have been made because the MXD+ modeling is calibrated to total external trips (including new and pass-by). Accordingly, further reductions for pass-by are not warranted.

Table 2 shows that between 15 and 25 percent of project trips (depending on the analysis period) are expected to remain internal to the site. These internalization percentages reflect the overall well-balanced mix of residential, office, and retail. The use of transit varies from 8 to 13 percent of project trips (depending on the analysis period). External travel by walk and bike varies from 15 to 19 percent of project trips (depending on the analysis period). The 2007 Plan would generate approximately 110,000 external daily trips, 5,400 AM peak hour trips (59 percent inbound), and 8,450 PM peak hour trips (58 percent outbound).

Table 2: Trip Generation of 2007 Railyards Specific Plan (Maximum Office Scenario) – Cumulative Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Office	710	2,993 ksf	16,506	16,507	33,013	4109	560	4669	758	3,702	4,460
Retail	820	1,566 ksf	46,197	46,197	92,394	1,291	792	2,083	3,758	4,072	7,830
Multi-Family Residential	232	11,300 du's	23,617	23,617	47,234	730	3,112	3,842	2,662	1,632	4,294
Other	580	N / A	2,410	2,410	4,820	516	130	645	167	703	869
Gross Trips			88,730	88,731	177,461	6,646	4,594	11,239	7,345	10,109	17,453
Reduction for Internal Trips [2] (14.8% Daily / 19.6% AM / 25.3% PM)			13,132	13,132	26,264	1,303	900	2,203	1,858	2,558	4,416
Shift to Transit Trips [2] (7.8% Daily / 13.3% AM / 12.8% PM)			6,921	6,921	13,842	884	611	1,495	940	1,294	2,234
Shift for Walk/Bike [2] (15.4% Daily / 19.0% AM / 13.5% PM)			13,664	13,665	27,329	1,263	873	2,135	992	1,365	2,356
Net External Vehicle Trips			55,013	55,013	110,026	3,197	2,210	5,406	3,555	4,893	8,447

Notes:
[1] Gross trip rates based on *Trip Generation Manual* (Institute of Transportation Engineers, 2012). Trip rates for office space based on weighted average rate given amount of office space. Trip rates for retail based on fitted curve equation for typical size of 150,000 square-foot retail center. Trip generation of 'other' uses (i.e., museum and performing arts center) based on values from 2007 Plan DEIR.
[2] Internal trips, and external trips made by transit, walking, and bicycling based on MXD+ model output (see previous page).
Source: Fehr & Peers, 2016.

The *Railyards Specific Plan Draft EIR* (2007) estimated that the 2007 Plan would generate approximately 150,000 external daily trips, 10,200 AM peak hour trips, and 15,500 PM peak hour trips. Those estimates are not considered valid for several reasons:

1. Those estimates were based on the 2003 version of *Trip Generation*, which has since been updated twice.
2. Over half of the PM peak hour trips are associated with the retail uses, which have an excessively high average trip rate of 6.88 trips per thousand square feet (due to the use of the fitted curve equation even for very small amounts of retail on a given block).
3. Advancements in transportation planning since that time have allowed for more accurate estimations of internal trip-making and external trips made by transit, bus, and walk than existed in 2007.

The proposed RSPU would generate approximately 107,800 external daily trips, 6,650 AM peak hour trips, and 9,000 PM peak hour trips under cumulative conditions. When compared to the 2007 Plan, these totals represent two percent less daily traffic, 23 percent more AM peak hour trips and 6.5 percent more PM peak hour trips. The primary contributor to this increase in the inclusion of more office space (and less residential) in the RSPU, which causes an imbalance in the jobs-housing ratio resulting in the import of larger numbers of employee trips.

We will update the cumulative version of the SACMET model to incorporate the 2007 Railyards Specific Plan including its land uses, roadway network, and any identified mitigation measures. The model will be used to assign vehicle trips through the study intersections and freeway facilities. The project not only includes new trip generating land uses, but also introduces new street connections that cause a redistribution of background traffic. We will review the trip assignment patterns for reasonableness (i.e., congested ramps and other bottlenecks). If necessary, we will reroute trips to shorter paths.

We would respectfully request that City staff review and provide comments on this memorandum by February 10, 2016. If the content is deemed reasonable to share with ESA, we would request that you forward it to them for review as well. We will not begin work on the "Cumulative No Project (2007 Plan)" technical analysis until we receive formal approval on this memo.

FEHR PEERS

TECHNICAL MEMORANDUM #6

Date: April 7, 2016

To: Pelle Clarke & Samar Hajeer – City of Sacramento

Brian Boxer - ESA

From: John Gard – Fehr & Peers

Subject**: **Non-Residential Reduction Factor Analysis – Trip Generation Comparison

RS15-3374

This memorandum presents an analysis that determines the amount of office space within the RSPU that would need to be removed to accommodate additional residential development within the site. An iterative analysis was performed to identify how much reduction in office space is necessary to support an an additional 2,000 and 4,000 multi-family dwelling units in the RSP Area without causing a meaningful increase in the project's external vehicular trip generation. This analysis has been prepared at the request of ESA, who would use the analysis results in other chapters of the Draft EIR.

Table 1 presents the RSPU trip generation under cumulative conditions. These represent the control totals, against which the proposed land use modifications are compared.

Table 1: Peak Hour and Daily Trip Generation of Railyards Specific Plan Buildout – Cumulative Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	N / A	1,168 ksf	14,418	14,418	28,836	1,624	432	2,056	771	1,729	2,500
Office	710	4,542.7 ksf	25,053	25,053	50,106	6,237	850	7,087	1,151	5,618	6,769
Retail	820	905.4 ksf	26,708	26,708	53,416	746	456	1,204	2,173	2354	4,527
Multi-Family Residential	232	6,000 units	12,540	12,540	25,080	388	1,652	2,040	1,414	866	2,280
Hotel	310	1,100 rooms	4,494	4,494	8,988	344	239	583	337	323	660
Museum	580	180 ksf	800	800	1,600	138	22	160	17	87	104
Stadium [2]	N / A	N / A	100	100	200	20	0	20	0	20	20
Gross Trips			84,113	84,113	168,226	9,497	3,651	13,150	5,863	10,997	16,860
Reduction for Internal Trips, and External Transit, Walk and Bike Trips (35.9% Daily / 49.4% AM / 46.8% PM)			30,197	30,197	60,393	4,692	1,804	6,497	2,744	5,147	7,891
Net External Vehicle Trips			53,916	53,916	107,833	4,805	1,847	6,653	3,119	5,850	8,969

Source: Fehr & Peers, 2015.

Table 2 shows the net change in external vehicle trip generation on a daily basis and during the AM and PM peak hours associated with Option 1, which consists of adding 2,000 dwelling units and removing 600,000 square feet of office space.[1] The cells shown in red represent revised values relative to Table 1. It is worth noting that eliminating office in favor of additional residential would result in an improved jobs-housing balance, and provide more opportunities for external bicycle/walk trips. The MXD+ results show overall non-vehicular trip generation reductions in the range of one to three percent due to these factors.

Table 2 compares the external vehicle trip generation with the RSPU. As shown, these land uses would generate fewer external vehicle trips than the RSPU in all time periods with the exception of the outbound direction during the AM peak hour, in which the project would generate a net 110 additional trips over the RSPU. However, outbound travel from the RSP Area during the AM peak hour represents a 'reverse commute type' travel pattern (i.e., the majority of AM peak hour trips are inbound).

Table 2: Peak Hour and Daily Trip Generation of RSPU Non-Residential Reduction Option 1 – Cumulative Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	N / A	1,168 ksf	14,418	14,418	28,836	1,624	432	2,056	771	1,729	2,500
Office	710	3,942.7 ksf	21,704	21,705	43409	5,413	738	6,151	999	4,876	5,875
Retail	820	905.4 ksf	26,708	26,708	53,416	746	456	1,204	2,173	2354	4,527
Multi-Family Residential	232	8,000 units	16,720	16,720	33,440	517	2,203	2,720	1,885	1,155	3,040
Hotel	310	1,100 rooms	4,494	4,494	8,988	344	239	583	337	323	660
Museum	580	180 ksf	800	800	1,600	138	22	160	17	87	104
Stadium [2]	N / A	N / A	100	100	200	20	0	20	0	20	20
Gross Trips			84,944	84,945	169,889	8,802	4,090	12,892	6,182	10,544	16,726
Reduction for Internal Trips, and External Transit, Walk and Bike Trips (37.7% Daily / 52.2% AM / 49.6% PM)			-32,024	-32,024	-64,048	-4,595	-2,135	-6,730	-3,066	-5,230	-8,296
Net External Vehicle Trips			52,920	52,921	105,841	4,207	1,955	6,162	3,116	5,314	8,430
Decrease Compared to RSPU			- 1.8%	- 1.8%	- 1.8%	-12.4%	+5.8%	-7.4%	-0.1%	-9.2%	-6.0%

Source: Fehr & Peers, 2015.

[1] At the request of ESA, this analysis focuses on reductions in office space (versus other uses) needed to accommodate the additional residential units.

Table 3 shows the net change in external vehicle trip generation on a daily basis and during the AM and PM peak hours associated with Option 2, which consists of adding 4,000 dwelling units and removing 1,100,000 square feet of office space. The relationship between Options 1 and 2 is close, but not precisely linear due to changes in trip internalization and non-auto mode split.

Option 2 would generate fewer external vehicle trips than the RSPU on a daily basis and during the peak, directional time periods. However, when compared to the RSPU, it would generate 15.5 percent more traffic in the outbound direction during the AM peak hour and 3.6 percent more traffic in the inbound direction during the PM peak hour. This increases represent 290 additional AM peak hour outbound vehicle trips and 110 additional PM peak hour inbound vehicle trips over the RSPU. However, as noted previously, these movements occur in non-peak travel direction. Further, when these trips are distributed across the variety of external RSP Area gateways, the net increase on a particular roadway or intersection is considered modest.

Table 3: Peak Hour and Daily Trip Generation of RSPU Non-Residential Reduction Option 2 – Cumulative Conditions

Land Use	ITE Land Use Code	Quantity	Trips [1]								
			Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Medical Center	N / A	1,168 ksf	14,418	14,418	28,836	1,624	432	2,056	771	1,729	2,500
Office	710	3,442.7 ksf	17,332	17,332	34,664	4,315	588	4,903	796	3,887	4,683
Retail	820	905.4 ksf	26,708	26,708	53,416	746	456	1,204	2,173	2354	4,527
Multi-Family Residential	232	10,000 units	20,900	20,900	41,800	646	2,754	3,400	2,356	1,444	3,800
Hotel	310	1,100 rooms	4,494	4,494	8,988	344	239	583	337	323	660
Museum	580	180 ksf	800	800	1,600	138	22	160	17	87	104
Stadium [2]	N / A	N / A	100	100	200	20	0	20	0	20	20
Gross Trips			84,752	84,752	169,504	7,833	4,491	12,326	6,450	9,844	16,294
Reduction for Internal Trips, and External Transit, Walk and Bike Trips (38.0% Daily / 52.5% AM / 49.9% PM)			-32,206	-32,206	-64,412	-4,112	-2,358	-6,470	-3,219	-4,912	-8,131
Net External Vehicle Trips			52,546	52,546	105,092	3,721	2,133	5,854	3,231	4,932	8,163
Decrease Compared to RSPU			-2.5%	-2.5%	-2.5%	-22.6%	+15.5%	-12%	+3.6%	-15.7%	-9%

Notes:
[1] Source: Fehr & Peers, 2015.

Conclusions

This analysis has determined that the following non-residential land use reduction options would cause overall reductions in external vehicular traffic when compared to the cumulative trip generation of the RSPU:

- Option 1 - add 2,000 dwelling units and remove 600,000 square feet of office space
- Option 2 - add 4,000 dwelling units and remove 1,100,000 square feet of office space

As shown in Tables 2 and 3, these options would result in about two percent fewer external daily trips when compared to the RSPU. Since each option would essentially be replacing longer distance work trips with shorter distance residential trips (of all types), the net effect on VMT would be a greater than two percent decrease.

It would also be possible to achieve comparable reductions in trip generation by removing some of the retail uses. However, no such calculations have been presented here because such analyses would require multiple levels of iterations (i.e., more unknowns).

Lastly, while it is noted that these trip generation reductions are generally associated with fewer or less severe transportation impacts, it is worth noting that the land use changes would cause a change in the directionality (i.e., distribution) of project trips. This, in turn, has the potential to cause impacts at certain intersections, roadways, or freeway facilities. A sensitivity analysis (e.g., report Average Daily Traffic volumes on roadways or conduct focused analysis of hot-spot facilities) could be conducted to further assess the extent to which such impacts could be expected.

We hope this information is helpful.

APPENDIX J.1.5:

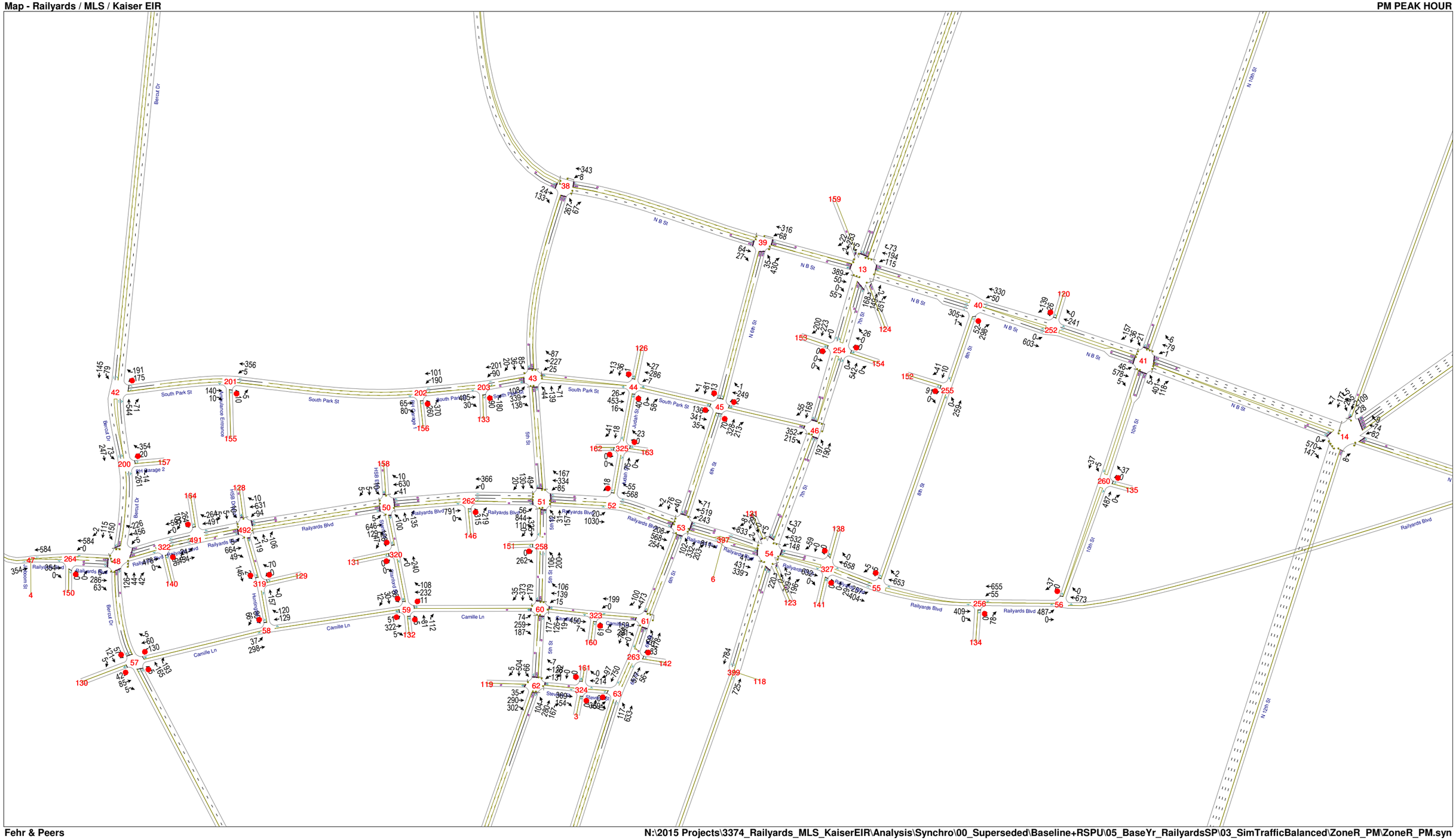
Preliminary Results & Railyards Network Modifications

PRELIMINARY RESULTS OF PROPOSD RAILYARDS BOULEVARD STREET CROSS-SECTION MODIFICATIONS

			Alt 1 - Railyards Blvd "As Is"			Alt 2 - Railyards Blvd 2 Lanes EB, 1 Lane WB			Alt 3 - Railyards Blvd "As Is" between Jibbom St & Stanford St; Railyards Blvd 2 Lanes EB, 1 Lane WB between Stanford St & 7th St		
			PM Peak Hour			PM Peak Hour			PM Peak Hour		
ID	Intersection	Control Type	Delay	LOS	% Served Volume (vph)	Delay	LOS	% Served Volume (vph)	Delay	LOS	% Served Volume (vph)
13	N 7th / N B St	Signal	19	B	82.9%	15	B	83.0%	16	B	82.1%
14	Dos Rios / N B St / N 12th St	Signal	66	E	85.3%	65	E	83.6%	58	E	85.1%
15	N 16th St / N B St	Signal	25	C	90.6%	36	D	93.7%	34	C	85.6%
38	5th St / Bannon St / N B St	Signal	5	A	82.3%	7	A	85.3%	6	A	83.2%
39	6th St / N B St	Signal	7	A	78.7%	7	A	81.8%	7	A	81.0%
41	10th St / N B St	Signal	10	B	76.6%	11	B	80.4%	11	B	79.2%
43	5th St / South Park St	Signal	46	D	79.3%	39	D	78.1%	31	C	80.5%
45	6th St / South Park St	AWSC	35	D	79.2%	27	D	79.6%	26	D	81.4%
46	7th St / South Park St	Signal	16	B	80.9%	8	A	80.8%	7	A	80.8%
47	Railyards Blvd / Jibboom St	-	4	A	88.4%	3	A	93.6%	4	A	90.6%
48	Bercut Dr / Railyards Blvd	Signal	18	B	85.7%	16	B	89.7%	15	B	88.9%
49	PH Garage 2 Entry / Railyards Blvd	Signal	32	C	75.0%	13	B	85.8%	20	C	85.2%
50	HSB Entry / Stanford St / Railyards Blvd	Signal	32	C	75.0%	26	C	83.8%	14	B	87.1%
51	5th St / Railyards Blvd	Signal	56	E	74.4%	60	E	77.0%	45	D	80.5%
53	6th St / Railyards Blvd	Signal	40	D	81.5%	36	D	80.4%	35	C	83.1%
54	7th St / Railyards Blvd	Signal	45	D	85.5%	49	D	80.9%	49	D	83.8%
56	10th St / Railyards Blvd	Signal	40	D	89.8%	36	D	83.2%	34	C	89.0%
57	Bercut Dr / Camille Ln	AWSC	15	C	90.9%	12	B	91.4%	12	B	92.6%
59	Stanford St / Camille Ln	AWSC	39	E	76.2%	18	C	80.6%	24	C	93.8%
60	5th St / Camille Ln	Signal	76	E	69.9%	78	E	69.1%	64	E	82.3%
61	6th St / Camille Ln	Signal	39	D	81.8%	37	D	76.4%	45	D	89.6%
62	5th St / Stevens St	Signal	125	F	70.9%	85	F	72.8%	95	F	78.0%

Network Calcs						
LOS	Alt 1		Alt 2		Alt 3	
C or better	11	50.0%	11	50.0%	15	68.2%
D	6	27.3%	7	31.8%	4	18.2%
E	4	18.2%	3	13.6%	2	9.1%
F	1	4.5%	1	4.5%	1	4.5%
VHT (hrs)	409.7		472.3		468.4	
VHD (hrs)	140.3		133.5		127.0	

Note:
1. Only signalized and all-way stop intersections shown
2. KHA Plan had 46% of intersections at LOS E or F
3. Above LOS results are preliminary and do not match DEIR results due to subsequent modifcations to the network made since these tests were conducted. Above results are intended for comparitave purposes only


Bercut Dr
South Park St
Railyards Blvd
N B St
5th St
6th St
7th St
8th St
10th St
N 10th St
N 12th St
Camille Ln
Huntington St
Jordan St
Stevens St
HSR Blvd
Parking Garage 2
Entrance
Exit
42
43
44
45
46
38
39
13
40
41
14
47
48
49
50
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53
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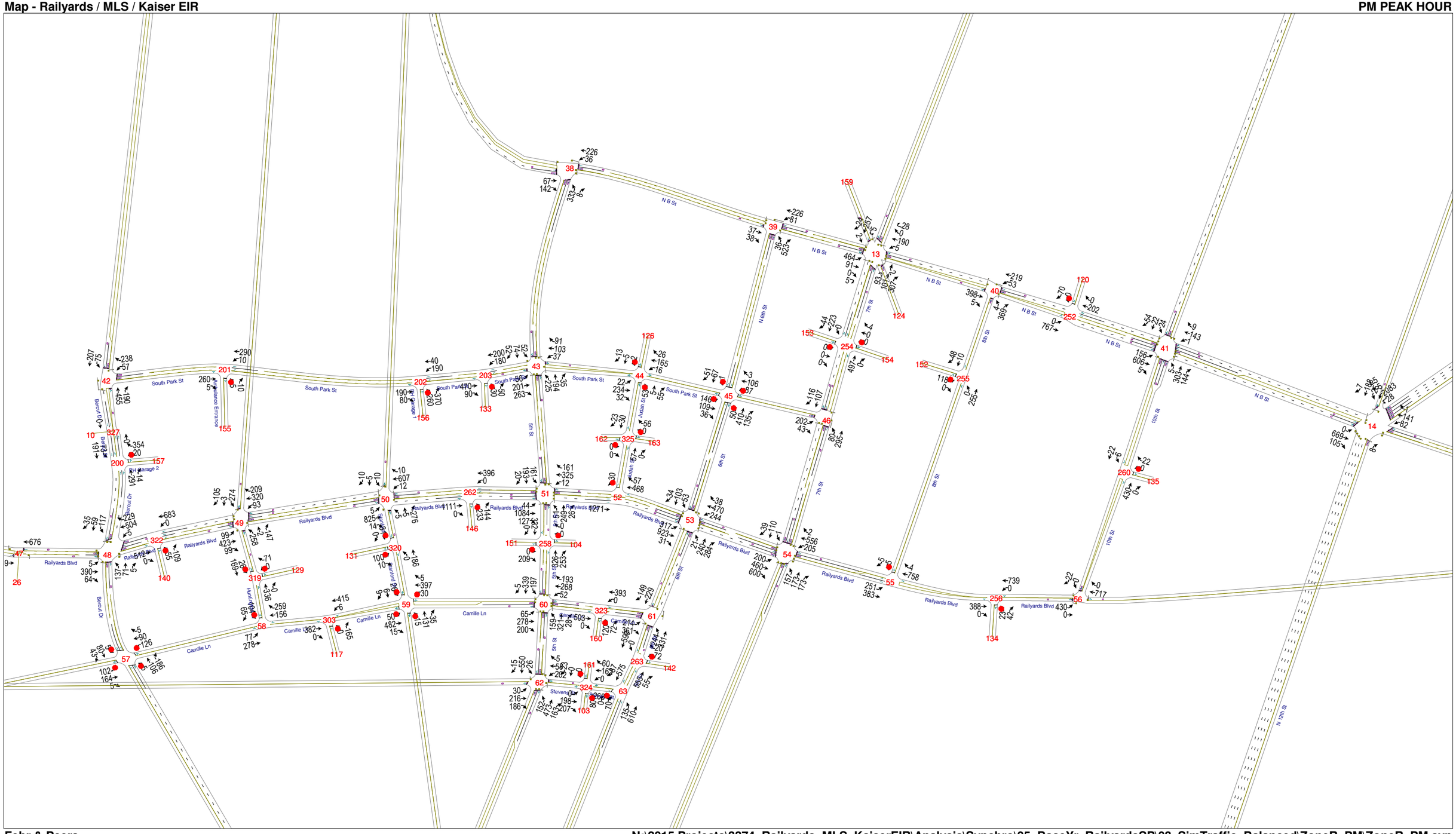

South Park St
N B St
Railyards Blvd
Camille Ln
Bercut Dr
Humboldt Ln
Garage 2
Entrance
Exit
Garage
Valet
Stevenson
Adah St
N 6th St
5th St
6th St
7th St
8th St
10th St
N 12th St

APPENDIX J.1.6:

Caltrans Letter

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, STE 150 – MS 19
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 263-1796
TTY 711

Serious drought.
Help save water!

May 25, 2016

032016-SAC-0110
03-SAC-5 / 24.02
SCH# 2006032058
P15-040

Ms. Samar Hajeer
Transportation Division
Department of Public Works
City of Sacramento
300 Richards Blvd. 3rd Floor
Sacramento, CA 95811

Railyards Specific Plan Update (RSPU), Kaiser Medical Center (KMC) and Major League Soccer Stadium (MLSS) Project – Caltrans Concurrence on I-5 Subregional Impact Fee Commitment from KMC and MLSS

Dear Ms. Hajeer:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. The proposed RSPU includes construction of a 1.2 million square foot KMC, and a MLSS to house a new professional soccer team and up to 25,000 attendees at soccer games and other events. The proposed RSPU will also include refinements to the density and intensity of land uses within the Office/Residential Mixed Use, Residential/Commercial Mixed Use, and Residential Mixed Use zones. The project is located immediately north of downtown Sacramento on both sides of Interstate 5 (I-5), with I-5 providing direct freeway access to the project site via the Richards Blvd., I Street, and J Street interchanges. Due to the project's location, scale of development and potentially significant impacts to mainline I-5 and its interchanges (IC), Caltrans views the project as being of regional and interregional significance.

I-5 Subregional Corridor Mitigation Program (SCMP)

The SCMP is a voluntary impact fee program for new developments within the I-5 corridor between the Cities of Elk Grove and West Sacramento, including Sacramento. The SCMP will help fund a set of transportation improvements that are identified in the Sacramento Area Council of Governments Metropolitan Plan/Sustainable Communities Strategy, including projects that help reduce Vehicle Miles Traveled such as the Sacramento/West Sacramento Streetcar project, the Green Line Extension project, and American River Crossing project. Improvements to the Richards Blvd.

interchange are also included in the SCMP project list.

In April 2016 the City of Sacramento approved the Nexus Study and Environmental Impact Report for, and adopted the SCMP, which authorized the City Manager to establish a new fund to hold voluntary SCMP fee payments. As the SCMP pertains to the development of the Railyards Specific Plan, including main tenant applicants which will be the KMC and MLSS; both have agreed to voluntarily pay into the SCMP. On May 23, 2016 the City informed Caltrans that the main tenant applicants have agreed to pay into the SCMP. The fee applies to the main tenants because separately, the developments may generate mainline traffic volumes on the State Highway System (SHS) within the SCMP corridor which would exceed the threshold of significance as adopted by the City.

Caltrans concurs with the agreement from the main tenant applicants, including the KMC, and MLSS, to pay into the SCMP. Per the SCMP Memorandum of Understanding, Caltrans agrees, and notices herein, payment into the SCMP satisfies Caltrans' requirement for the project's obligation under California Environmental Quality Act to mitigate cumulative mainline traffic volume impacts on the SHS, from the main tenant applicants shown above.

Please provide our office with copies of any further actions regarding this project.

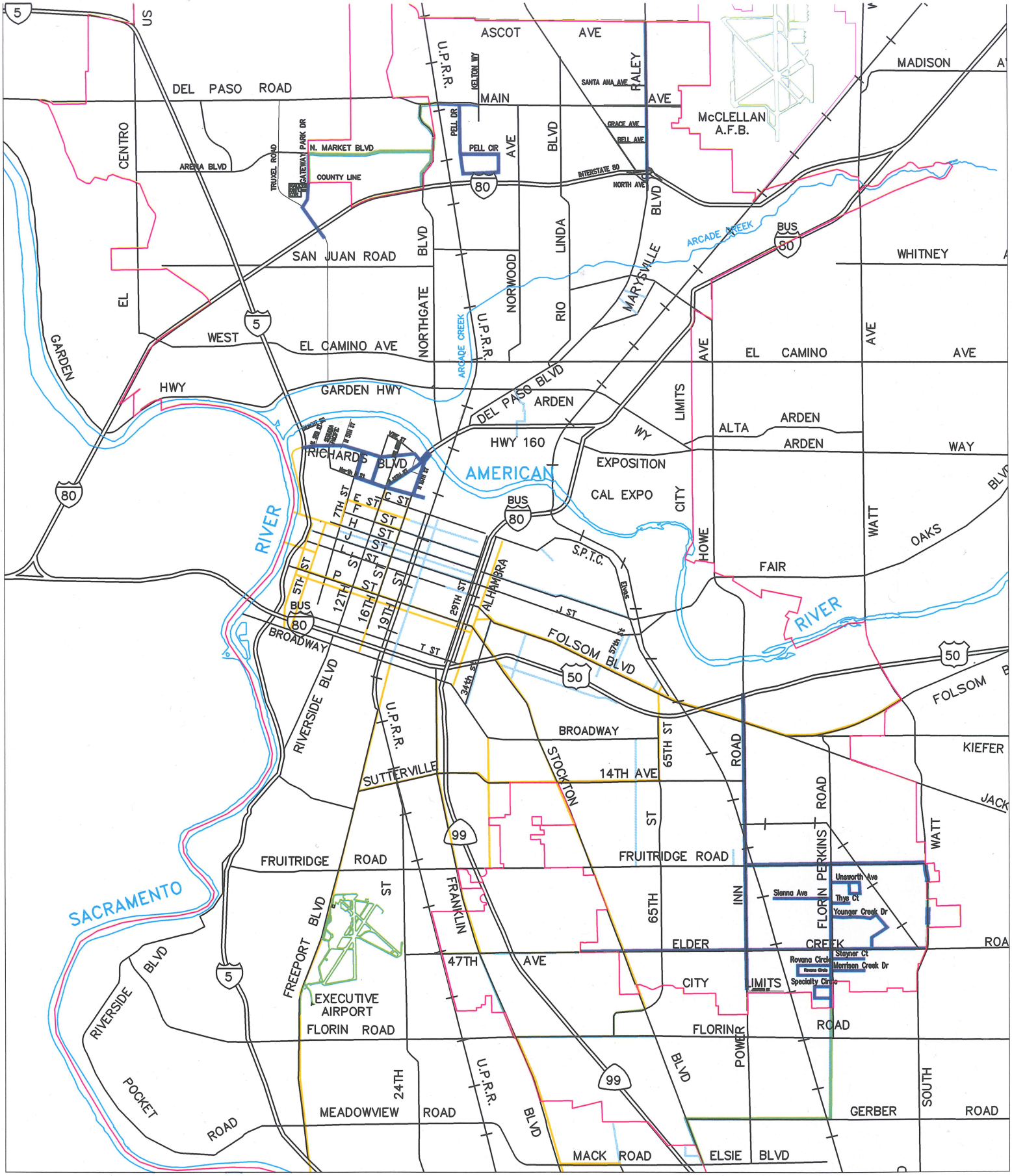
If you have any questions regarding Caltrans' concurrence herein, please contact Arthur Murray by email at: arthur.murray@dot.ca.gov.

Sincerely,

ERIC FREDERICKS, Branch Chief
Office of Transportation Planning – South Branch

APPENDIX J.1.7:

Truck Routes

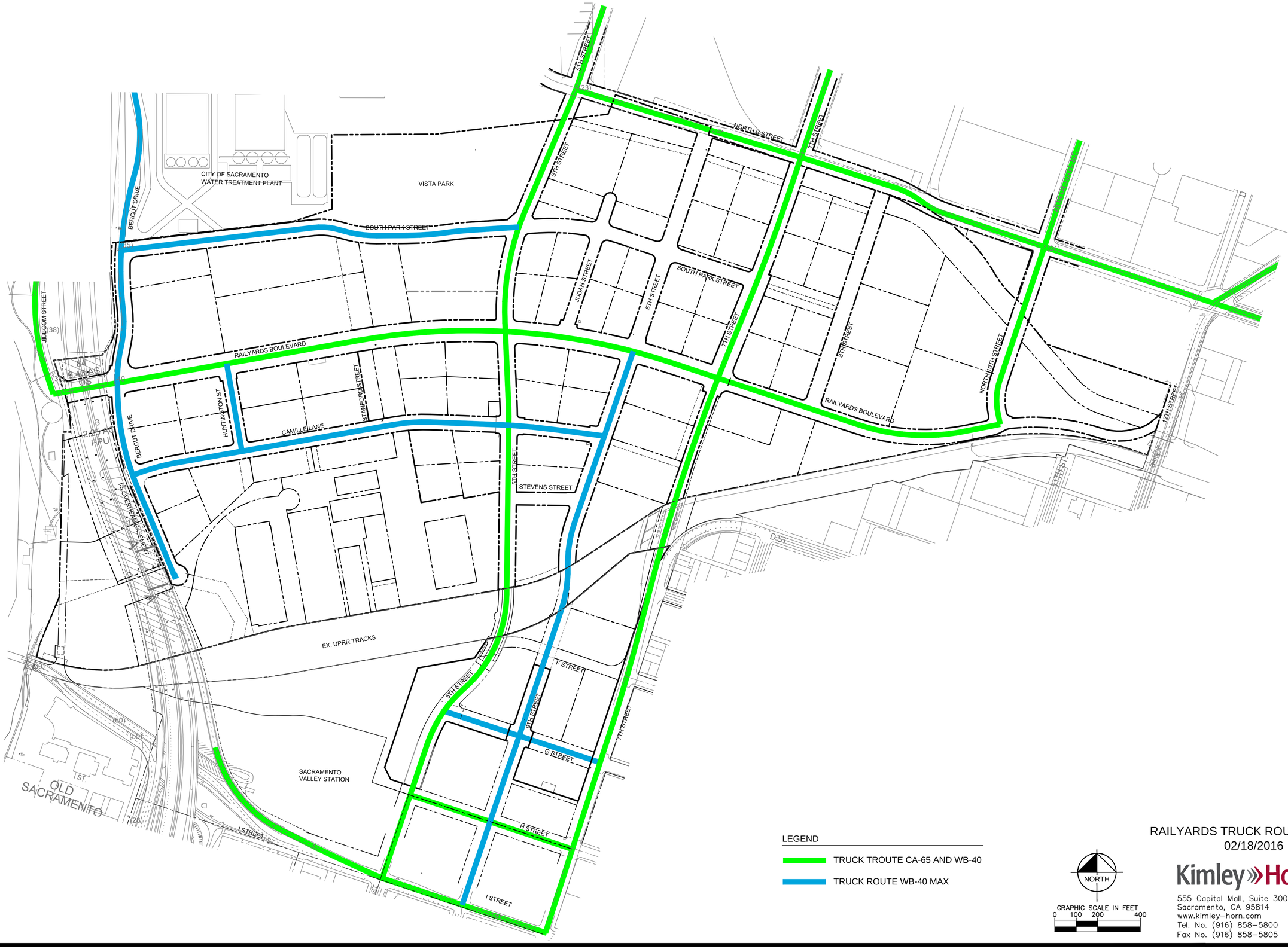


CITY TRUCK ROUTES

LEGEND

- CITY TRUCK ROUTE*
- CITY STAA ROUTES
- WEIGHT RESTRICTED ROUTES
- COUNTY STAA ROUTE (VERIFY)
- CITY/COUNTARY BOUNDARY

* all one way streets.



LEGEND

- TRUCK TROUTE CA-65 AND WB-40
- TRUCK ROUTE WB-40 MAX

NORTH

GRAPHIC SCALE IN FEET
0 100 200 400

RAILYARDS TRUCK ROUTE EXHIBIT
02/18/2016

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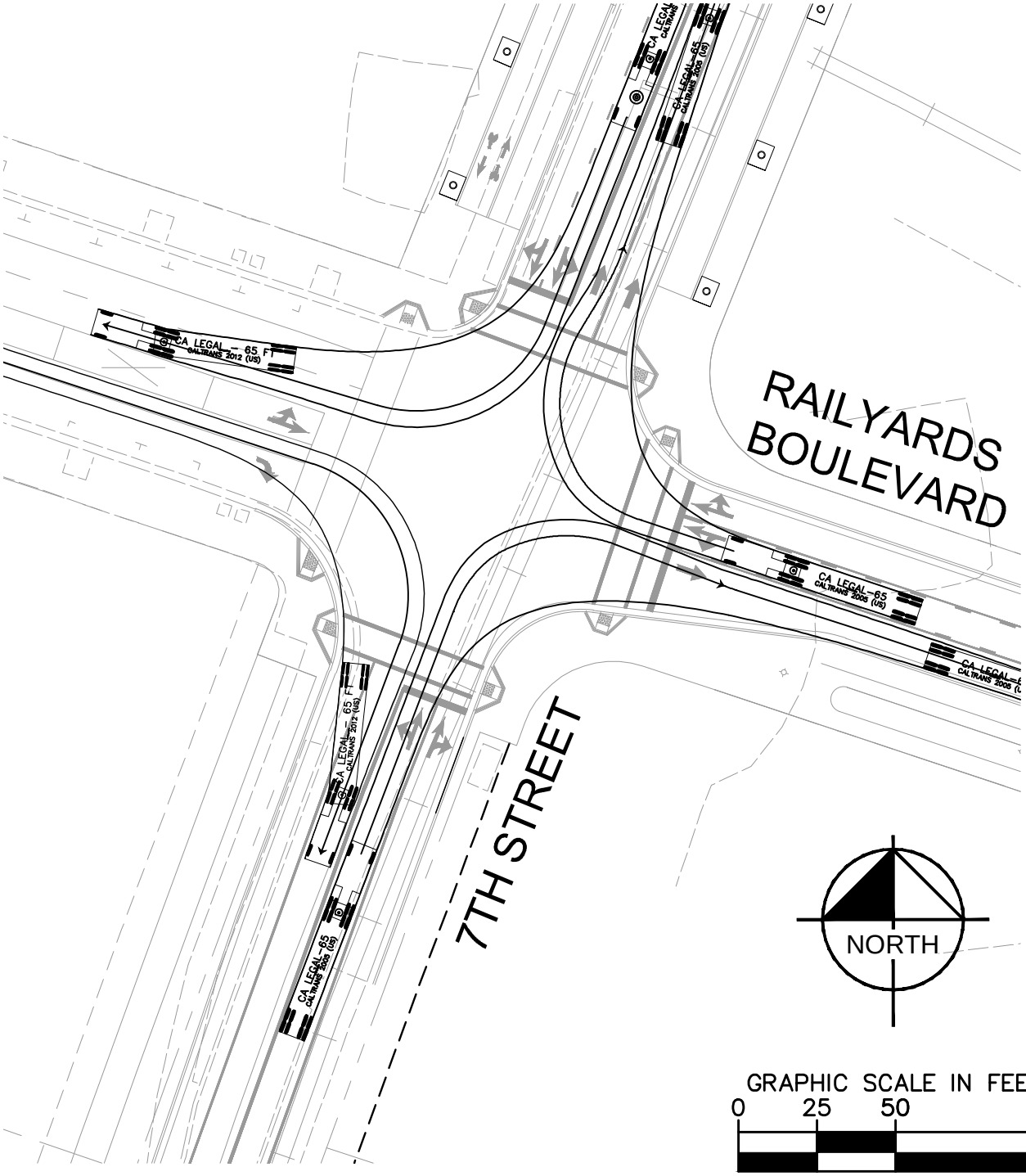
555 Capital Mall, Suite 300
Sacramento, CA 95814
www.kimley-horn.com
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

K:\SAC_LDEV\097922008 Railyards\700 NDTA\08 cADD\Exhibits\Truck Turning\Exh...TruckRoutes.dwg



GRAPHIC SCALE IN FEET

0 25 50 100

CA-65 TRUCK TURNING EXHIBIT

02/19/2016

Kimley»Horn

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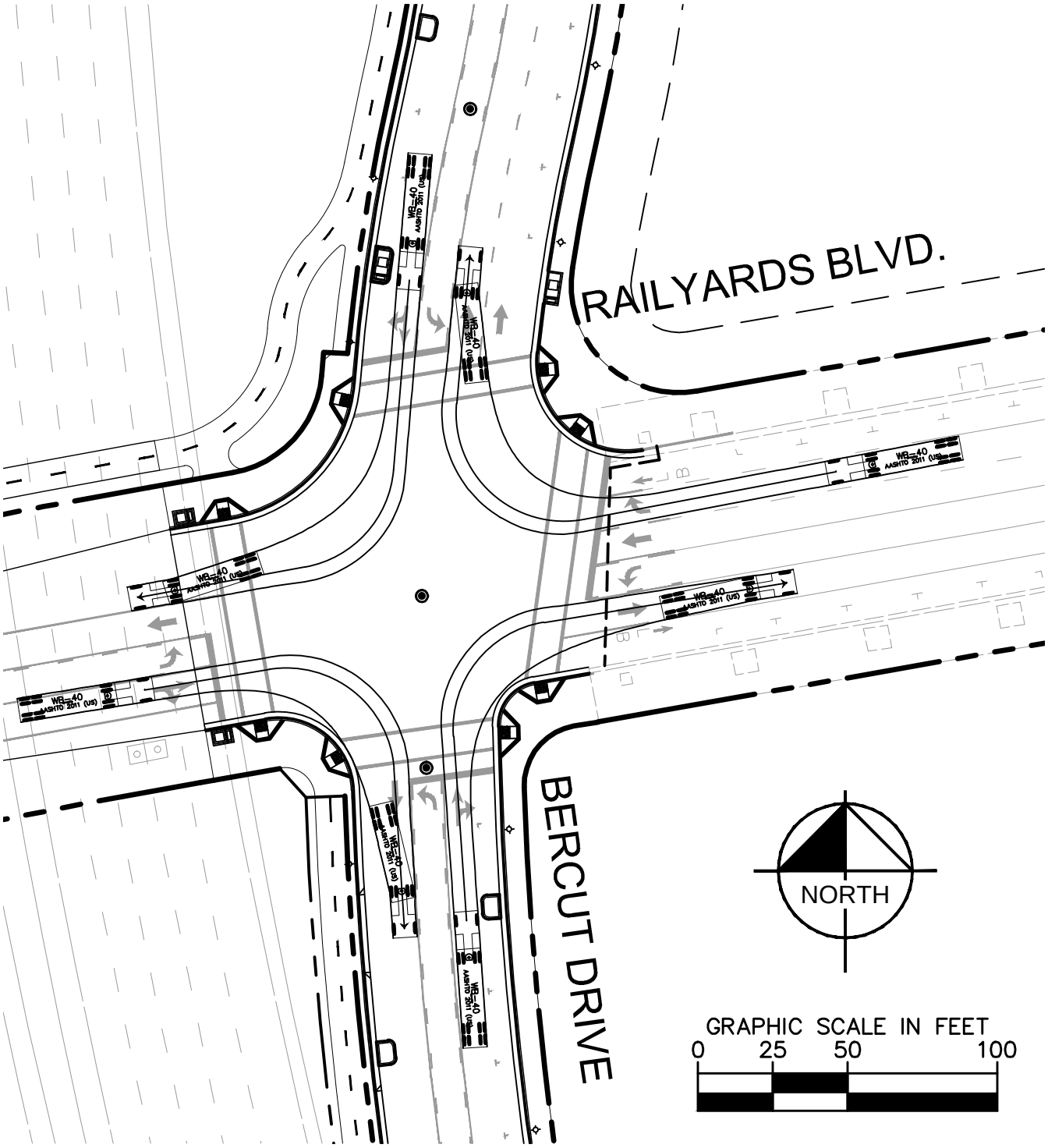
555 CAPITOL MALL, SUITE 300, SACRAMENTO, CA 95814
PHONE: 916-858-5800 FAX: 916-608-0885
WWW.KIMLEY-HORN.COM



NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

WB-40 TRUCK TURNING EXHIBIT

02/17/2016

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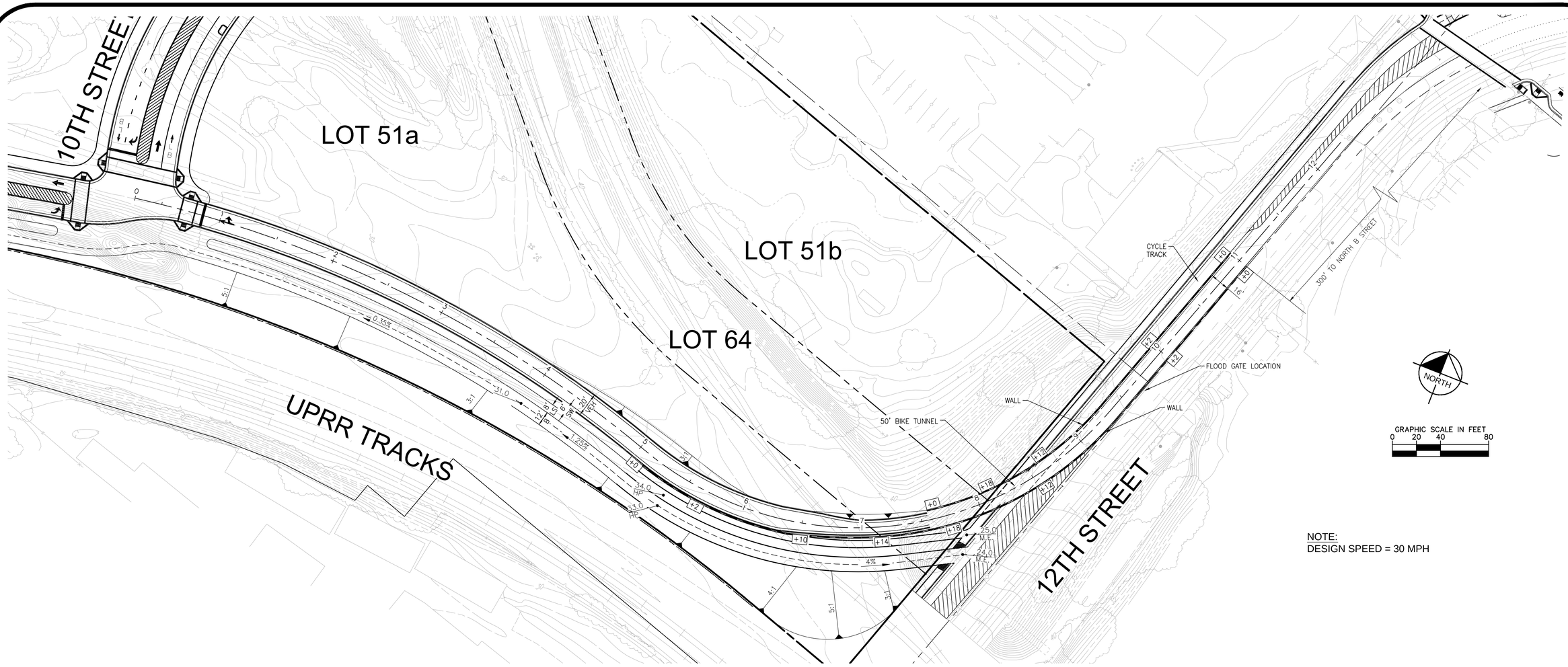
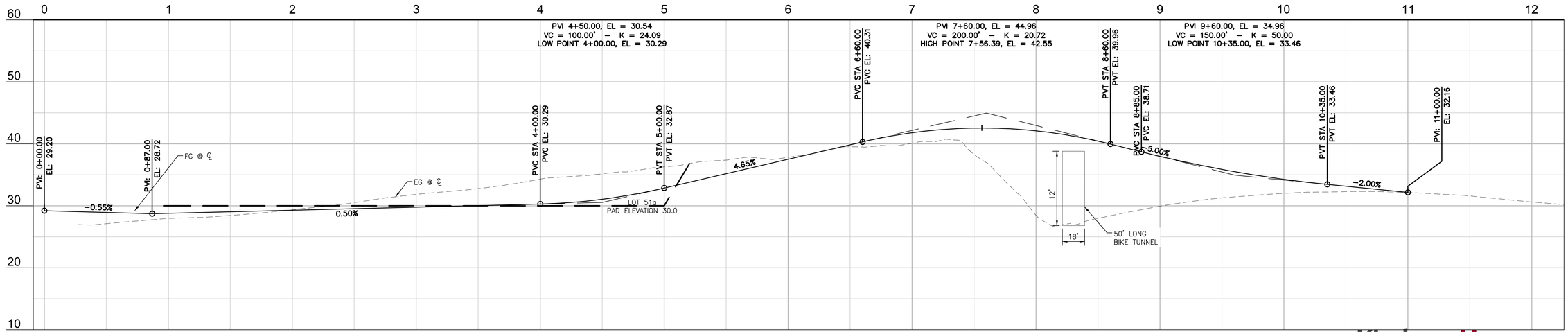
PHONE: 916-858-5800 FAX: 916-608-0885
WWW.KIMLEY-HORN.COM





RAILYARDS BOULEVARD & 12TH STREET CONNECTION

CYCLE TRACK UNDERCROSSING

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555 Capitol Mall, Suite 300
Sacramento, California 95814
www.kimley-horn.com
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

K:\SAC_DEV\097922008 Railyards\7000 AUTACAD\Exhibits\10th Street\RYds-12th Street Connection_Ramp.dwg

APPENDIX J.1.8:

MTP / SCS Tier 1 Project List

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
ELD15610	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Silva Valley Pkwy Interchange - Phase 1	New Interchange: Phase 1 includes US 50 on-/off-ramps, overcrossing, and US 50 aux lanes. See ELD19291/CIP71345 for Phase 2. (CIP71328)	Completion by 2020	$56,817,400	$56,817,400
CAL18190	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	U.S. 50 - Camino Operational / Safety Improvements	Construct an undercrossing, median barrier, modify local road connections and/or associated operational and safety improvements on and adjacent to U.S. 50. PM 24.521 to 27.027	2021-2036	$51,723,000	$51,723,000
ELD19340	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Mosquito Rd/South Fork American River Bridge Replacement	Mosquito Rd, over South Fork American River, 5.7 miles north of US 50: Replace existing structurally deficient 1 lane bridge with new 2 lane bridge. (Toll credits programmed for PE, ROW, & CON. CIP77126.)	Completion by 2020	$32,585,000	$32,585,000
ELD15990	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Diamond Springs Pkwy - Phase 1B	Construct new 2-lane divided arterial roadway from Missouri Flat Rd east of Golden Center Dr to a new T-intersection with SR-49 south of Bradley Dr; includes planning, environmental clearance, grading and right of way for the ultimate 4-lane road, required improvements to SR-49 and three new signals. See ELD19348/CIP72375 for Phase 1A and ELD19203/CIP72368 for Phase 2. (CIP72334)	2021-2036	$28,638,000	$28,638,000
ELD19339	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Mt. Murphy Rd/South Fork American River Bridge Replacement	Mt Murphy Rd, over South Fork American River, 0.1 mile east of SR49. Replace existing 1 lane truss bridge with new 2 lane bridge. Toll credits programmed for PE, ROW, and CON. (CIP77129)	Completion by 2020	$20,550,000	$20,550,000
ELD19461	Yes	El Dorado	El Dorado County Transit	E- Transit Capital (Major)	Regional Fueling Station	Develop a regional fueling station near the Sacramento/El Dorado County Line.	2021-2036	$20,310,000	$31,764,000
CAL20476	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	SR 49 South Fork American River Bridge Retrofit/Enhancement	In El Dorado County, near Placerville, at South Fork American River Bridge #25-0021 - Cross bracing seismic retrofit and enhancement to provide safe and efficient pedestrian/bicyclist facilities (PM 24.0) [CTIPS STIP ID 107-0000-0878, CTIPS SHOPP ID 107-0000-0907; EFIS ID 0300000078] (Toll Credits for PE, ROW, CON)	Completion by 2020	$19,654,000	$19,654,000
ELD19232	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Latrobe Rd/White Rock Rd Connector (New Road)	New connector road from the El Dorado Hills Business Park to White Rock Rd west of Four Seasons/Stonebriar intersection; Initial work to perform route alignment study and prepare PSR; Subsequent work will include environmental, design and construction; may require coordination with Sacramento County, City of Folsom, Southeast Connector JPA and area developers. (CIP66116)	2021-2036	$19,445,000	$19,445,000
ELD19217	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	U.S. 50 / Bass Lake Rd. (Phase 2)	Add Auxiliary Lane: WB on US 50 between Bass Lake Rd. and Cambridge Rd. interchanges. Includes: additional ramp, road widening. (Phase 2) (See ELD19182 for Phase 1) (CIP GP148)	2021-2036	$19,063,000	$29,813,000
ELD19182	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Bass Lake Rd Interchange - Phase 1	Interchange Improvements: this phase includes detailed study to determine complete improvements needed; Phase 1 may include ramp widening, road widening, signals, and WB auxiliary lane between Bass Lake and Silva Valley interchanges; Phase 1 assumes bridge replacement. (See ELD19217 for Phase 2) CIP71330	2021-2036	$16,532,000	$25,855,000
ELD19180	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Ponderosa Rd/So. Shingle Rd Interchange Improvements	Interchange Improvements: includes detailed study to identify alternatives and select preferred alternative; widening existing US 50 overcrossing to accommodate 5 lanes, and realignment of WB loop on-ramp, ramp widenings, and widening of Ponderosa Rd, Mother Lode Dr, and So. Shingle Rd; includes PE for all phases; (See ELD19170/CIP71339 and ELD19244/CIP71338). Coordinates with ELD19289/CIP53116, ELD19219/CIP#GP150, ELD19246/CIPGP171, and ELD19250/CIP#GP175. (CIP71333)	2021-2036	$16,307,000	$16,307,000
ELD19225	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Bass Lake Road Improvements - Phase 1B	Widen Bass Lake Road from US 50 to Silver Springs Pkwy to accomodate 4 lanes of traffic (divided), curb, gutter, and sidewalk. (See ELD19224 for Phase 1A) (CIP GP166)	2021-2036	$15,385,000	$24,061,000
ELD19219	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50 Auxiliary Lane Eastbound - Cambridge to Ponderosa	Construct eastbound auxiliary lane on US50 between Cambridge Rd and Ponderosa Rd interchanges. CIPGP150.	2021-2036	$14,550,000	$22,755,000
CAL20649	Project Development Only	El Dorado	Caltrans D3	B- Road & Highway Capacity	US 50 WB Auxiliary Lane	In Placerville, from west of Coloma Road offramp to the Placerville Drive offramp, Construct WB Auxiliary Lane (PM 17.111/17.778)	Completion after 2036	$20,000,000	
ELD15930	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Cameron Park Drive Widening - Palmer Drive to Meder Road	Widen Cameron Park Drive to 4 lanes (divided) from Palmer Drive to Meder Road Includes a curb, gutter, and sidewalk. (CIP GP144)	2021-2036	$12,520,000	$19,580,000
ELD19291	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Silva Valley Pkwy Interchange - Phase 2	Final phase of US 50/Silva Valley Parkway Interchange: construction of eastbound diagonal and westbound loop on-ramps to US 50. (See ELD15610/CIP71328 for Phase 1). CIP71345	2021-2036	$12,070,000	$18,877,000
ELD16010	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Saratoga Wy Ext - Phase 1	Construct new 2-lane arterial to extend Saratoga Wy from current terminus near Finders Wy to Sacramento County Line; includes median, 6-ft shoulders, right-turn pocket onto Finders Way, asphalt path, drainage system, environmental clearance and secure ROW for future 4-lane road from County Line to El Dorado Hills Blvd. (Phase 2 CIP#GP147-See ELD19234 in MTP.) CIP71324	2021-2036	$11,541,350	$18,050,000
ELD19326	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Green Valley Rd/Weber Creek Bridge Replacement	Green Valley Rd, over Weber Creek, 0.7 miles west of Placerville Dr.: Replace existing structurally deficient 2 lane bridge with new 2 lane bridge bridge. Widen and realign Green Valley Rd at bridge approaches, and drainage improvements. (CIP77114)	Completion by 2020	$11,126,000	$11,126,000
ELD19245	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Headington Rd Ext - Missouri Flat to El Dorado	Construct new 2-lane arterial with median extension of Headington Rd from Missouri Flat Rd to El Dorado Rd. Does not include curb, gutter or sidewalk. (CIP71375)	2021-2036	$10,417,000	$16,292,000
ELD19410	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Placerville Drive Widening - Ray Lawyer Drive to Cold Springs Road	Widen Placerville Drive from Ray Lawyer Drive to Cold Springs Road to accomodate 4 lanes of traffic, a dual left turn lane, sidewalks, and bike lanes on both sides.	2021-2036	$10,352,000	$16,190,000
ELD19168	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	El Dorado Hills Boulevard / Francisco Drive - Realignment	Realign existing El Dorado Hills Boulevard / Francisco Drive / Brittany Way intersection and approach roadways to result in a new 4-way intersection with extensions and signal installation. Northern portion of El Dorado Hills Boulevard (at this intersection) will become new minor traffic way, and current Francisco Drive between El Dorado Hills Boulevard and Green Valley Road will become new major traffic way. CIP72332	2021-2036	$9,452,000	$14,782,000
ELD19237	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Latrobe Rd.	Widen: 6 lanes (divided with 4-foot shoulders) from White Rock Rd. to Carson Creek (Suncast Ln.) (CIP GP154)	2021-2036	$8,987,000	$14,055,000
ELD19222	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Silver Springs Pkwy to Bass Lake Rd (South Segment)	Construct new 2-lane divided road to Bass Lake Rd; includes median, curb, gutter, sidewalk, shoulders, and bike lanes. Coordinates with ELD19221/CIP76107 (CIP76108)	Completion by 2020	$8,605,534	$8,605,534
ELD19411	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Cold Springs Road Connector	Construct a new 2-lane road connecting Cold Springs to Placerville Drive for future Fair Lane Road Extension.	Completion after 2036	$3,865,000	
ELD19412	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Ray Lawyer Drive Extension East	Ray Lawyer Drive Extension East - Construct a new 2,500 ft. 2-lane road to City collector street standards from Forni Road southeast to the City Limit (US 50 to Main Street)	2021-2036	$8,122,000	$12,702,000
ELD19441	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Emigrant Ravine Road Extension	Construct a new 4,200-foot 2-lane roadway with sidewalk to extend Emigrant Ravine Road from the Carson Road to the proposed Clay Street Extension	Completion after 2036	$15,422,000	
CAL20493	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	SR 49 - Lotus Road to Cool CAPM	In El Dorado County, on SR 49, near Placerville, from Coloma to Cool - Pavement rehabilitation (PM 23.9/35.0) [Toll Credits] (CTIPS ID 107-0000-0930)	Completion by 2020	$7,932,000	$7,932,000
ELD19495	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	State Route 49 Shoulder Widening	State Route 49 Widening from Pleasant Valley Road to Missouri Flat Road	2021-2036	$7,879,000	$12,322,000
ELD19420	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Main Street Realignment	Construct 700-foot of new 2-lane road. Includes sidewalks to City collector street standards between Broadway and Main Street. New road will extend Main Street down Spanish Ravine Road.	Completion after 2036	$8,121,768	
ELD19422	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Mallard Lane Extension	Build a new 2-lane roadway connecting Mallard Lane to Placerville Drive.	Completion after 2036	$3,756,000	

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
ELD19347	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Western Placerville Interchanges Phase 2	In Placerville: Phase 2 includes local road improvements to Ray Lawyer Drive and Forni Road and an eastbound US 50 offramp to Ray lawyer Drive. A Class I Bike path will be constructed along Forni Road from Ray Lawyer Drive to the existing bike path on Forni Road. Sidewalks and Class II bike lanes will be constructed along Forni Road and Ray Lawyer Drive. (Toll Credits PE & CON)(Emission Benefits for sidewalks and Class I & II bike facilities in kg/day: 0.03 ROG, 0.02 NOx)	Completion by 2020	$7,847,839	$7,847,839
ELD19407	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Mallard Lane/Ray Lawyer Drive Extension	Construct a new 2-lane roadway connecting Ray Lawyer Drive Extension to Mallard Lane.	Completion after 2036	$10,785,362	
ELD19348	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Diamond Springs Pkwy - Phase 1A (SR-49 Realignment)	Realign SR-49/Diamond Rd from Pleasant Valley Rd to north of Lime Kiln Rd; Improvements include: two 12-ft lanes and 8-ft shoulders, signal modification at Pleasant Valley Rd/SR-49 intersection, residential frontage road, and potential underground utility district. Phase 1A was split from Phase 1 (CIP72334/ELD15990) which is now Phase 1B. (CIP72375)	Completion by 2020	$7,813,100	$7,813,100
ELD19321	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Bucks Bar Rd/North Fork Cosumnes River Bridge Replacement	Bucks Bar Rd over north fork of Cosumnes River, 1.2 miles north of Mount Aukum Rd: Replace existing 1 lane bridge with new 2 lane bridge, including approaches. (CIP77116)	Completion by 2020	$7,806,940	$7,806,940
ELD19464	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Mosquito Road Interchange	New Interchange: Mosquito Road and US50 Interchange	Completion after 2036	$60,000,000	
ELD19241	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Mother Lode Dr/Pleasant Valley Rd - Signalization	Reconfigure existing "Y" all-way stop to a signalized "T" intersection including turn pockets and shoulder improvements. CIP73307	2021-2036	$7,782,300	$12,171,000
ELD19224	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Bass Lake Road Improvements - Phase 1A	Widen and reconstruct Bass Lake Road from US 50 to Hollow Oak Road to 2-lane divided road with 4-foot shoulders and bicycle/pedestrian paths. Includes an 8-foot median, sidewalk and bike lane from Hollow Oak Road to US 50; median improvements only from Hollow Oak Road to Serrano Parkway; improvements of park-and-ride lot with frontage road improvement to Old Bass Lake Road and Tierra de Dios. (CIP66109)	2021-2036	$7,437,000	$11,631,000
ELD19243	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Cameron Park Drive Widening - Durock to Coach	Widen Cameron Park Drive from Durock Road to Coach Lane to 5-lanes: 2 northbound through lanes (with right and left turn pockets) and 3 southbound through lanes (with dual right turn lanes at Robin Lane). Project also includes median and signal modification at Coach Lane intersection, realignment of Robin Lane intersection for future extension to Rodeo Drive and construction of a new traffic signal. (Needs coordination with US 50/Cameron Park Drive Interchange (ELD19177/CIP72361). CIP72367	2021-2036	$7,338,000	$11,476,000
ELD19393	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Durock Road Widening	Widening Durock Road from Robin Lane to South Shingle Road. Work includes widening the roadway to accommodate a two-way left turn pocket (CIP GP171)	2021-2036	$7,210,000	$11,276,000
ELD19244	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	US 50/Ponderosa Rd Interchange - Durock Rd Realignment	Realign approx. 1/4 mile of Durock Rd to Sunset Ln and signalize new intersection. Durock Rd will be two through lanes with turn pockets at the intersection and center turn lane. PE for this phase included in ELD19180/CIP7133. Coordinates with ELD19170/CIP71339 and ELD19180/CIP71333. (CIP71338)	2021-2036	$7,152,000	$8,727,000
ELD19173	Yes	El Dorado	El Dorado County	A- Bike & Ped	US 50/El Dorado Hills Blvd Pedestrian Overcrossing	Construct ped/bike overcrossing over US 50 just east of El Dorado Hills Blvd Interchange; includes a Class 3 mixed-use path; Construction and ROW acquisition for 10-ft wide sidewalk and adjacent retaining walls, barriers, railings and landscape replacement included with CIP71323/ELD15630. (CIP71340)	2021-2036	$6,783,000	$10,608,000
ELD19413	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Ray Lawyer Drive Extention West	Ray Lawyer Drive Extention West - Construct a new 2,500 ft. 2-lane road to City collector street standards form Forni Road southeast to the City Limit (Forni Road to the City Limit)	Completion after 2036	$16,046,000	
ELD19376	Yes	El Dorado	El Dorado County Transit	F- Transit O&M (Bus)	Operating Assistance for Rural Transit Service	Operating assistance for rural transit services within El Dorado County. Outside the Sacramento Urbanized Area.FFY 2015: $635,227FFY 2016: $635,227FFY 2017: $635,227FFY 2018: $635,227	Completion by 2020	$6,777,064	$6,777,064
ELD19408	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Placerville Drive Widening - Cold Springs Road to US 50	Widen Placerville Drive from Cold Springs Road to US 50 to accomodate 4 lanes of traffic, a dual left turn lane, sidewalks, and bike lanes on both sides.	2021-2036	$6,515,000	$10,189,000
VAR56155	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Highway Advisory Radio Deployment and Weather Stations – integrate with Caltrans	Highway Advisory Radio Deployment and Weather Stations – integrate with Caltrans	Completion by 2020	$6,500,000	$6,818,000
ELD19466	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Washington Street and Turner Street Widening	Widen Washington Street and Turner Street to City collector standards from Main Street to Cedar Ravine Road to create a parallel route to Cedar Ravine Road.	Completion after 2036	$9,458,060	
ELD19325	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Sly Park Rd/Clear Creek - Bridge Replacement	Sly Park Rd., Over Clear Creek, 1.1 Miles East of Pleasant Valley Rd. Replace the existing functionally obsolete 2 lane bridge with a new 2 lane bridge. CIP77115	Completion by 2020	$6,440,497	$6,440,497
ELD19431	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Silver Springs Parkway to Bass Lake Road	It is anticipated that Silver Springs Parkway will be built as a two-lane standard divided roadway with shoulders. It is planned to realign Bass Lake Road south of Green Valley Road through the proposed Silver Springs subdivision, which is west of the existing Bass Lake Road. The new road is named Silver Springs Parkway. That development is responsible for building Silver Springs Parkway through their development. There is a portion of the new alignment that falls to the south of the Silver Springs development that must also be built to connect the new road to the existing Bass Lake Road to the south.	2021-2036	$6,373,773	$9,968,000
ELD19363	Project Development Only	El Dorado	City of Placerville	B- Road & Highway Capacity	Western Placerville Interchanges Phase 3	Replacement and widening of the Forni Road/Placerville Drive US 50 Overcrossing, improved operations at the Forni Road/Placerville Drive/US 50 interchange, a westbound US 50 offramp and offramps at the existing Ray Lawyer Drive overcrossing, and an eastbound auxiliary lane between the Forni Road/Placerville Drive/ US 50 interchange and the Ray Lawyer Drive interchange.	Completion after 2036	$23,374,018	
CAL20515	Yes	El Dorado	Caltrans D3	G- System Management, Operations, and ITS	US 50 Traction Sand Traps	On US 50 near Placerville, from 0.8 mile east of Bridal Veil Falls Road to Strawberry Lodge Drive - Construct traction sand traps [Stormwater Mitigation] (PM 38.0/58.0) [EFIS ID 0300020539; CTIPS ID 120-0000-0072] [Total Project Cost $6,205,000 in 17/18 FY] (Toll Credits for PE, ROW, CON)	Completion by 2020	$6,205,000	$6,205,000
ELD19345	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	US 50/El Dorado Hills Blvd Interchange Eastbound Ramps	Reconstruct eastbound diagonal on-ramp and eastbound loop off-ramp for the ultimate configuration; add a lane to northbound El Dorado Hills Blvd under the overpass (eliminates merge lane and improves traffic flow from the eastbound loop off-ramp); eastbound diagonal on-ramp will be metered and have an HOV bypass. Project split from ELD15630(CIP71323).	2021-2036	$5,904,400	$7,205,000
ELD19272	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/El Dorado Rd Interchange - Phase 2	Interchange Improvements: this phase involves construction of left and right turn lanes and additional through traffic lanes in all approaches to the interchange. (See ELD19178/CIP71347 for Phase 1). CIP71376 (Except for Eastbound Loop Off/Eastbound On two lanes)	2021-2036	$5,870,000	$9,180,000
ELD19239	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	ITS Improvements - Phase 1	Identification of various Intelligent Transportation System (ITS) improvements along US 50 and regionally significant corridors in the County; projects may include upgrading all controllers, building the communications infrastructure, adding CCTVs, adding DMS, connecting all the signals. (See ELD19240/CIP#GP168 for Phase 2) CIP31202	2021-2036	$5,833,200	$7,118,000
ELD19322	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Newtown Rd/South Fork Weber Creek - Bridge Rehab	Newtown Rd., Over S Fork Weber Cr., 0.7Mi W Of Snows Rd. Rehabilitate existing 2 lane bridge. No added lane capacity. CIP77122	Completion by 2020	$5,569,000	$5,569,000
ELD19228	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Country Club Drive Extension - Silver Dove to west end Bass Lake Hills	Construct new 2-lane extension of Country Club Drive from Silver Dove Road to the west end of Bass Lake Hills Specific Plan boundary for future connection to Silva Valley Parkway. Project includes 6-foot paved shoulders. (Curb, gutter and sidewalk may be included). CIP#GP125	2021-2036	$5,413,000	$8,466,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
ELD19229	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Country Club Drive Realignment - Bass Lake Road to east end Bass Lake Hills	Realign Country Club Drive from Bass Lake Road to the east end of Bass Lake Hills Specific Plan boundary. Includes constructing a 2-lane road with 6-foot paved shoulders. (Curb, gutter and sidewalk may be included.) CIP#GP126	2021-2036	$5,043,000	$7,887,000
ELD19170	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	US 50/Ponderosa Rd Interchange - N. Shingle Rd Realignment	Realign approx. 1/4 mile of N. Shingle Rd about 600 ft north at Ponderosa Rd; realign WB off-ramp to align with Wild Chaparral Dr; and signalize the new intersection. Realigned N. Shingle Rd will be two through lanes with turn pockets at the intersection. PE for this phase included in CIP71333/ELD19180. Coordinates with CIP71338/ELD19244, CIP71333/ELD19180 and CIP#GP150/ELD19219. (CIP71339)	2021-2036	$5,020,000	$6,126,000
ELD19240	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Intelligent Transportation System (ITS) Improvements (Phase 2)	Minor ITS Improvement: Deployment of various ITS improvements along U.S. 50 and regionally significant corridors in the County. Includes: implementation of ITS projects listed and prioritized in El Dorado County. (See ELD19239 for Phase 1)	2021-2036	$5,000,000	$6,101,000
VAR56146	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Critical Intersection Improvements	Critical Intersection Improvements	Completion by 2020	$5,000,000	$5,245,000
ELD19233	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Green Valley Road Widening - Deer Valley Road to Lotus Road	Widen Green Valley Road from Deer Valley Road to Lotus Road to two 12-foot lanes with paved shoulders. Project includes adding six left-turn pockets. CIP#GP179	2021-2036	$4,784,000	$7,482,000
ELD19387	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Wiltse Road	Wiltse Road (Alt 1) Construct 400 feet of 2 lane roadway with sidewalk, curb and gutter both sides. A new bridge over Hangtown Creek	2021-2036	$4,728,000	$7,394,000
ELD19234	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Saratoga Wy. (Phase 2)	Widen: 4 lanes from the Sacramento/El Dorado County line to El Dorado Hills Blvd. Includes: full curb, gutter, and sidewalk. (See ELD16010 for Phase 1) (CIP GP147)	2021-2036	$4,640,000	$5,662,000
ELD19350	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Clear Creek Rd/Clear Creek (0.25 mi E of Sly Park Rd) Bridge Replacement	Clear Creek Rd over Clear Creek, 0.25 mi east of Sly Park Rd.: Replace 1-lane bridge with a new 2-lane bridge. (Toll Credits for PE, ROW, & CON.) (CIP77139)	Completion by 2020	$4,494,000	$4,494,000
ELD19335	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Green Valley Rd/Indian Creek Bridge Replacement	Green Valley Rd, over Indian Creek, 0.9 miles north of Greenstone Rd. Rehabilitate the existing 2 lane functionally obsolete bridge.(CIP77127)	Completion by 2020	$4,415,000	$4,415,000
ELD19353	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Green Valley Rd/Mound Springs Creek Bridge Rehabilitation	Green Valley Rd over Mound Springs Creek, 0.8 miles west of Missouri Flat Rd. Rehabilitate functionally obsolete 2-lane bridge. No added lane capacity. (CIP77136)	Completion by 2020	$4,414,500	$4,414,500
ELD19256	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Blairs Ln / Hangtown Creek Bridge	Blairs Ln, over Hangtown Creek, 150' south of Broadway: Replace 1 lane bridge with 2 lane bridge. (Toll Credits for CON)	Completion by 2020	$4,365,000	$4,365,000
ELD19185	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Placerville Dr Bridge Widening	Hangtown Creek Bridge at Placerville Drive, 0.3 mi west of Cold Springs Rd: Replace 2-lane bridge with a new 4-lane bridge.	Completion by 2020	$4,335,550	$4,335,550
ELD19371	Yes	El Dorado	El Dorado County	A- Bike & Ped	El Dorado Trail Ext. - Missouri Flat Rd to El Dorado Rd	El Dorado Trail, from Missouri Flat Rd to El Dorado Rd: Construct Class I multi-use bike/ped path, approximately 2.54 miles. Improvements include: 10-foot wide paved path, signage, roadway crossing at Forni/Blanchard Rds, and unpaved nature trail adjacent to the bike path. (Toll credits for PE & ROW) (Emission Benefits in kg/day: 0.05 ROG, 0.03 NOx, 0.01 PM 10)	Completion by 2020	$4,210,000	$4,210,000
ELD19351	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Clear Creek Rd/Clear Creek (1.82 mi E of Sly Park Rd) Bridge Replacement	Clear Creek Rd over Clear Creek, 1.82 miles east of Sly Park Rd.: Replace 1-lane bridge with a new 2 lane bridge. Toll credits for PE, ROW, & CON. (CIP77138)	Completion by 2020	$4,106,500	$4,106,500
ELD19337	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Bassi Rd/Granite Creek Bridge Replacement	Bassi Rd, over Granite Creek, 0.3 mi N/W of Lotus Rd. Replace this structurally deficient 1-lane bridge with a new 2-lane bridge. (Toll credits for PE, R/W, & CON.) (CIP77128)	Completion by 2020	$3,970,000	$3,970,000
ELD19238	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Mother Lode Dr Turn Lane, Greenstone to Pleasant Valley	Mother Lode Dr, Greenstone to Pleasant Valley: Add two-way left-turn lane and widen road to accommodate the turn lane. No curb, gutter or sidewalk. CIP#GP155	2021-2036	$3,893,000	$6,088,000
ELD19355	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Oak Hill Rd/Squaw Hollow Creek Bridge Replacement	Oak Hill Rd over Squaw Hollow Creek, 0.6 miles south of Pleasant Valley Rd: Replace existing 2 lane bridge with new 2 lane bridge. Toll credits for PE, ROW, & CON. (CIP77134)	Completion by 2020	$3,877,000	$3,877,000
ELD19352	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Hanks Exchange Rd/Squaw Hollow Creek Bridge Replacement	Hanks Exchange Rd over Squaw Hollow Creek, 0.4 miles south of Pleasant Valley Rd.: Replace existing 1-lane bridge with new 2-lane bridge. Toll credits for PE, ROW, & CON. (CIP77135)	Completion by 2020	$3,836,000	$3,836,000
CAL20534	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	Highway Bridge Deck Rehab	In El Dorado County, in and near Placerville, on US 50 and SR 193 at various locations; also in Placer County on I-80 at PM 3.5 - Place polyester overlay [EFIS ID 0314000027; CTIPS ID 107-0000-0990] (Toll credits for PE, ROW, CON)	Completion by 2020	$3,772,000	$3,772,000
ELD19273	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50 Aux Lane WB - El Dorado Hills to Empire Ranch	Widen US 50 and add auxiliary lane to westbound US 50 connecting the El Dorado Hills Blvd/Latrobe Rd Interchange to the future Empire Ranch Rd Interchange located in the City of Folsom; (City of Folsom will construct the EB aux lane.) Timing of construction to be concurrent with or after the El Dorado Hills Blvd Interchange (ELD15630/CIP71323) or Empire Ranch Interchange. CEQA/NEPA cleared through the Empire Ranch Interchange environmental document. CIP53115	2021-2036	$3,688,300	$5,768,000
ELD19178	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/El Dorado Rd Interchange - Phase 1	Interchange Improvements: includes signalization and widening of existing ramps. (See ELD19272 for Phase 2). CIP71347	2021-2036	$3,538,500	$5,534,000
ELD19236	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Latrobe Rd Widening - Golden Foothill to Investment	Widen Latrobe Rd from Golden Foothill Pkwy (south end) to Investment Blvd from 2-lanes undivided to 4-lanes divided with curb, gutter, and Class II bike lanes; modify signal at Investment Blvd. CIP72350	2021-2036	$3,516,000	$5,499,000
ELD19341	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Blair Rd/EID Canal Bridge Replacement	Blair Rd, over EID Canal, 0.7 mi N/O Pony Express Trail. Replace the existing 1 lane functionally obsolete bridge with a new 2 lane bridge. (Toll credits for PE, ROW, & CON) (CIP77119)	Completion by 2020	$3,499,000	$3,499,000
ELD19494	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	State Route 49 Passing Lanes	State Route 49 Passing Lanes from SR193 (in Cool) to the northern County Line	2021-2036	$3,482,000	$4,249,000
ELD19419	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Combellack Road Extension	Road Extension: Combellack Road	2021-2036	$3,466,000	$4,229,000
ELD19354	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Greenstone Rd/Slate Creek Bridge Replacement	Greenstone Rd over Slate Creek, 0.5 miles north of Mother Lode Rd.: Replace existing 2 lane bridge with new 2 lane bridge. Toll credits for PE, ROW, & CON. (CIP77137)	Completion by 2020	$3,436,500	$3,436,500
ELD19421	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Clay Street Realignment	Main Street/Cedar Ravine/Clay Street Intersection Project	Completion by 2020	$3,372,877	$3,538,000
CAL20536	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	Maintenance Overlay near Placerville	In El Dorado County, near Placerville, from the Amador County line to Pleasant Valley Road - Bonded wearing course overlay (ED-49-0.0/9.6) [HM1 - Pavement Preservation (Fed-Funded)] (Toll Credits for PE, ROW, CON)	Completion by 2020	$3,198,000	$3,198,000
ELD19409	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Placerville Drive Widening - Fair Lane to Ray Lawyer Drive	Widen Placerville Drive from Fair Lane to Ray Lawyer Drive to accomodate 4 lanes of traffic, a dual left turn lane, sidewalks, and bike lanes on both sides.	2021-2036	$3,169,000	$4,956,000
ELD19338	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Silver Fork Rd/South Fork American River Bridge Rehab	Silver Fork Rd over South Fork American River , 0.1 miles southeast of US 50: Rehabilitate existing 2 lane bridge. No added lane capacity. 11/2/2010: Toll credits programmed for PE, R/W, & CON. (CIP 77124)	Completion by 2020	$3,158,000	$3,158,000
ELD19257	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Clay St. / Hangtown Creek Bridge	Clay St. over Hangtown Creek, 150' north of Main St.: Replace 1 lane bridge with 2 lane bridge. (Toll Credits for ROW & CON)	Completion by 2020	$2,925,000	$2,925,000
CAL20634	Yes	El Dorado	Caltrans D3	A- Bike & Ped	SR 49 - Construct Class II Bike Lane	On SR 49, from Southview Ct. in Placerville (south of US 50) to Gold Hill Rd (Approximately 5 miles north of US 50), where feasible Construct Class II Bike Lane	2021-2036	$2,880,000	$4,504,000
VAR56174	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	SPTC/El Dorado Trail	Class I Bike Path from Latrobe Road to County Line	2021-2036	$2,800,000	$3,417,000
ELD19250	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Ponderosa Rd Widening - N. Shingle to Meder	Widen Ponderosa Rd from N. Shingle Rd to Meder Rd to accommodate four left-turn pockets and 0.3 miles of dual left-turn lane; shoulder repair and widening. CIP#GP175	2021-2036	$2,798,000	$4,376,000
ELD15970	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	Green Valley Rd.	Widen: 4 lanes from Salmon Falls Rd. east to Deer Valley Rd. (CIP GP 159)	Completion after 2036	$12,578,000	
ELD19248	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Pleasant Valley Rd Widening - Pearl to Big Cut	Widen Pleasant Valley Rd from Pearl Pl (east of SR 49) to Big Cut Rd in Diamond Springs to accommodate three left-turn pockets, 0.5 miles of 2-way left-turn lane, and shoulder widening. CIP#GP173	2021-2036	$2,710,000	$4,238,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
ELD19380	Yes	El Dorado	El Dorado County	A- Bike & Ped	El Dorado Trail - Missouri Flat Road Bike/Pedestrian Overcrossing	Construct a multi-use bike and ped over-crossing structure with a 12 to 14 foot wide concrete deck on the El Dorado Trail over Missouri Flat Road. (Emission benefits in kg/day: 0.07 ROG, 0.04 NOx, 0.02 PM10)(CIP #97015) (Toll Credits for PE, ROW)	Completion by 2020	$2,705,000	$2,705,000
ELD19394	Yes	El Dorado	El Dorado County	A- Bike & Ped	El Dorado Trail Ext. - Missouri Flat Rd Bike/Pedestrian Overcrossing	Construct a bicycle/pedestrian overcrossing as part of the El Dorado Trail at Missouri Flat Road (CIP97015)	Completion by 2020	$2,705,000	$2,837,000
CAL20644	Yes	El Dorado	Caltrans D3	G- System Management, Operations, and ITS	US 50 ITS	From Missouri Flat Road in Placerville to Echo Summit, Install ITS (PM 15.055/67.295)	2021-2036	$2,600,000	$4,066,000
ELD19342	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Hazel Valley Rd/EID Canal Bridge Replacement	Hazel Valley Rd, over E.I.D Canal, 0.8 miles southeast of SR50: Replace functionally obsolete 1 lane bridge with a new 2 lane bridge. Toll credits programmed for PE, ROW, & CON. (CIP77125)	Completion by 2020	$2,534,000	$2,534,000
ELD19463	Yes	El Dorado	El Dorado County	A- Bike & Ped	SPTC/El Dorado Trail	Class I Bike Path from Missouri Flat Road to Mother Lode Drive in El Dorado	2021-2036	$2,400,000	$2,929,000
ELD19374	Yes	El Dorado	El Dorado County Transit	E- Transit Capital (Minor)	Ray Lawyer Drive Park and Ride Lot	In Placerville: Construct a 150 stall park and ride lot on the south side of US Highway 50, between the proposed US 50 Eastbound offramp to Ray Lawyer Drive and realigned Forni Road. (Toll credits for CON) (Emission Benefits in kg/day: 0.63 ROG, 0.45 NOx, 0.49 PM10)	Completion by 2020	$2,370,620	$2,370,620
ELD19249	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Pleasant Valley Rd Widening - Big Cut to Cedar Ravine	Widen Pleasant Valley Rd from Big Cut Rd to Cedar Ravine Rd to accommodate seven left-turn pockets. CIP#GP174	2021-2036	$2,291,000	$3,583,000
ELD19336	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Alder Dr/E.I.D. Canal Bridge Replacement	Alder Dr, over E.I.D. Canal, at Pony Exp Trail. Replace existing functionally obsolete 2 lane bridge with a new 2 lane bridge. Toll credits programmed for PE, R/W, & CON. (CIP77123)	Completion by 2020	$2,236,000	$2,236,000
ELD19215	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50 Mainline Widening at El Dorado Hills	Construct new westbound aux lane within median of US 50 between Silva Valley Pkwy and Empire Ranch Rd future new interchanges; requires coordination with Silva Valley I/C (ELD15610/CIP71328), El Dorado Hills I/C (ELD15630/CIP71323) and Empire Ranch I/C (City of Folsom project). CIP53120	2021-2036	$2,161,000	$3,380,000
ELD19417	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	US 50 Broadway Eastbound Exit (#47) - Signalization and ramp lengthening	Lengthen eastboud exit ramp of US 50 at Broadway (#47) and install traffic signal.	2021-2036	$2,000,000	$3,128,000
ELD19210	Yes	El Dorado	El Dorado County	D- Programs & Planning	US 50 Camino Area Parallel Capacity/Safety Study	Study to identify and analyze alternatives to improve access and reduce accidents at US 50 and Camino Rd. EDCTC is lead agency on study. This project is EDCDOT's contribution to the study. Preferred alternative to be implemented in project CAL18190. CIP71319	2021-2036	$2,000,000	$3,128,000
CAL20529	Yes	El Dorado	Caltrans D3	A- Bike & Ped	Placerville ADA Curb Ramps	In Placerville, at the intersection of Spring Street and US 50, and at the intersection of Spring Street and Coloma Street - Upgrade curb ramps, sidewalks, and adjust turn lane to install crosswalk (PM 14.9/15.1) [EFIS ID 0300020632; CTIPS ID 107-0000-0985] (Toll Credits for PE, ROW, CON)	Completion by 2020	$1,938,000	$1,938,000
ELD19253	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Green Valley Rd Widening - Francisco to Salmon Falls	Widen Green Valley Rd from Francisco Dr to Salmon Falls Rd to 4-lanes divided with curb, gutter and sidewalk. CIP#GP178	2021-2036	$1,898,000	$2,968,000
ELD19295	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	US 50/Missouri Flat Rd Interchange - Phase 1C	Phase 1C (Riparian Restoration) is 3rd/final phase to construct Phase 1 option addressed in FEIR for "US 50/Missouri Flat Road Interchange" project; include design, specs, implementation plan, maintenance plan, maintenance requirements and monitoring program for restoration of native riparian vegetation and trees that are or have been removed as part of the overall Phase 1 project construction. See ELD15690/CIP671317 for Phase 1A and ELD19193/CIP71336 for Phase 1B. (CIP71346)	Completion by 2020	$1,768,200	$1,768,200
ELD19418	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Coleman Street Extension	Construct 150-foot 2-lane roadway with sidewalk and gutter on both sides to extend Coleman Street from Bedford Avenue to Spring Street	2021-2036	$1,762,000	$2,756,000
ELD19372	Yes	El Dorado	El Dorado County	A- Bike & Ped	Silva Valley Pkwy Class I/II Bike Path - Harvard Wy to Green Valley Rd	Silva Valley Pkwy, from Harvard Wy to Green Valley Rd: Design and construct approx. 1.1 mi Class I bike path from Harvard Wy to Appian Wy; Also design and construct approx. 0.9 mi Class II bike lane on both sides of Silva Valley Pkwy from Appian Wy to Green Valley Rd, and on SB side only from Appian Wy to Harvard Wy. (Toll credits for PE, ROW, & CON) (Emission Benefits in kg/day: 0.02 ROG, 0.01 NOx)	Completion by 2020	$1,678,000	$1,678,000
ELD19356	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance Program	Various locations in El Dorado County: Implement Bridge Preventive Maintenance Program. Locations: 1. Bayne Rd over Dutch Creek, 0.46 miles south of Mt Murphy Rd: Reinforce wingwall connection to abutment; remove and replace north abutment backfill. (CIP77132)2. Cosumnes Mine Rd over North Fork Cosumnes River, 4 miles north of Grizzly Flat Rd: Clean debris from abutments, joints, bearings, drains; stabilize slope adjacent to abutment(s); replace deck boards. (CIP77133)3. Ice House Rd over Jones Fork Silver Creek, 12.8 miles north of US50: Replace with elastomeric bearing pads; remove and replace abutment backfill. (CIP77131)4. Mount Aukum Rd over North Fork Cosumnes River, 2.6 miles south of Pleasant Valley Rd: Replace joint seals; deck overlay; spot painting. (CIP77130)	Completion by 2020	$1,634,454	$1,634,454
ELD19331	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Bass Lake Road Frontage Improvements	Perform roadway operational improvements on Bass Lake Road constructed by Silver Springs development. (CIP66115)	2021-2036	$1,576,000	$2,465,000
ELD19373	Yes	El Dorado	City of Placerville	A- Bike & Ped	Broadway Bike Lanes	In Placerville, on Broadway, from Blairs Lane to Point View Drive: Widen shoulders to add Class II Bike Lanes. (Emission Benefits in kg/day: 0.02 ROG, 0.01 NOx. Toll Credits for PE & ROW)	Completion by 2020	$1,575,000	$1,575,000
ELD19458	Yes	El Dorado	El Dorado County	A- Bike & Ped	Pleasant Valley Road Bike Lanes	Big Cut Road to Sly Park Road	2021-2036	$1,575,000	$1,922,000
VAR56180	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	US 50 Traveler Information	US 50 Traveler Information	Completion by 2020	$1,500,000	$1,573,000
VAR56137	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	Bass Lake Road Bike Lanes	Class II Bike Lanes from Green Valley Road to US 50	2021-2036	$1,500,000	$1,830,000
ELD19392	Yes	El Dorado	El Dorado County	A- Bike & Ped	US 50/Missouri Flat Rd Interchange - Phase 1B2	Phase 1B2 is the second phase of the Class 1 bike path and pedestrian facility between Missouri Flat Road and Placerville Drive. The Phase 1B2 project will construct the bike and pedestrian facility portion between Weber Creek Bridge and Placerville Drive overcrossing, and will include additional safety enhancements. (CIP 71359)	Completion by 2020	$1,452,300	$1,523,000
ELD16070	Yes	El Dorado	City of Placerville	E- Transit Capital (Minor)	Mosquito Rd./ Clay St. Park & Bus	Phase II - Construct an additional 50-car parking lot with lighting landscaping, install public restrooms, and install the El Dorado Trail facility	Completion by 2020	$1,440,000	$1,440,000
ELD19309	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Salmon Falls Rd south of Glenesk Ln Realignment	Realign curves between MP 7.79 and 7.89 (south of private road Glenesk Ln), widen roadway, add shoulders, superelevate curve, drainage improvements, add flashing beacon warning signs and rumble strips. (CIP73362) (HSIP3-03-009)	Completion by 2020	$1,336,111	$1,336,111
ELD19396	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Missouri Flat Rd Widening, Headington to Prospector's Plaza	Add 1 lane in each direction with a raised median (CIP GP 165)	2021-2036	$1,299,000	$2,032,000
ELD19450	Yes	El Dorado	City of Placerville	B- Road & Highway Capacity	Gateway Drive/Broadway Roundabout	Build roundabout at Gateway Drive and Broadway.	2021-2036	$1,286,000	$2,011,000
ELD19390	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Green Valley Road/Deer Valley Intersection Improvements	Green Valley Road/Deer Valley Intersection Improvements (CIP76114)	Completion by 2020	$1,209,000	$1,268,000
ELD19194	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Missouri Flat Rd - Turn Lane, El Dorado to Headington	Add two-way left-turn lane on Missouri Flat Rd from El Dorado Rd to Headington Rd. No curb, gutter or sidewalk. CIP#GP163	2021-2036	$1,202,000	$1,880,000
ELD19192	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Pleasant Valley Rd/Oak Hill Rd - Intersection Improvements	Intersection and roadway alignment improvements, widen shoulders on north side and additional turn lanes. (CIP73358) (HSIP2-03-018)	Completion by 2020	$1,178,996	$1,178,996
ELD19308	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Cold Springs Rd at Mt. Shasta Ln - Realignment	Cold Springs Rd at Mt. Shasta Ln-Realign/superelevate curve between MP 3.4 and MP 3.55, widen roadway, add shoulders, drainage improvements, and add flashing beacon warning signs. Coordinates with ELD19344. (CIP73360) (HSIP3-03-008)	Completion by 2020	$1,147,447	$1,147,447
ELD19227	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Country Club Drive Extension - Bass Lake Road to Silver Dove Road	Construct 2-lane extension of Country Club Drive from Bass Lake Road to Silver Dove Road. Roadway includes 6-foot paved shoulders and new intersection at Bass Lake Road. (Curb, gutter and sidewalk may be included.) CIP#GP124	2021-2036	$1,121,000	$1,753,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
VAR56179	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	US 50 Surveillance	US 50 Surveillance	Completion by 2020	$1,100,000	$1,154,000
ELD15570	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	Palmer Dr/Wild Chaparral Dr - New Connector Rd	Construct new 2-lane undivided road connecting Palmer Dr to Wild Chaparral Dr. Future CIP project.	Completion after 2036	$9,700,000	
ELD16000	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	Pleasant Valley Rd Widening - El Dorado to SR 49	Widen Pleasant Valley Rd from El Dorado Rd to SR 49 to accommodate 0.25 mile two-way left-turn lane at west end and widen shoulders. CIP#GP160	2021-2036	$1,099,000	$1,719,000
ELD15960	Yes	El Dorado	El Dorado County	B- Road & Highway Capacity	El Dorado Hills Boulevard Widening - Lassen Lane to Park Drive	Widen El Dorado Hills Boulevard from Lassen Lane to Park Drive from 4 to 5 lanes (divided) by adding a third southbound lane. Project includes curb, gutter and sidewalk. CIP#GP183	2021-2036	$1,096,000	$1,714,000
CAL20525	Yes	El Dorado	Caltrans D3	G- System Management, Operations, and ITS	ED/Sac/Yol High Friction Surface Treatment	In El Dorado County on SR 49 and US 50, and also in Sacramento and Yolo Counties on I-80 at Various Locations - Apply high friction surface treatment (HFST) [EFIS ID 0314000157; CTIPS ID 107-0000-0980] (Toll Credits for PE, ROW, CON)	Completion by 2020	$1,055,000	$1,055,000
ELD19365	Yes	El Dorado	Sacramento Regional Transit District	F- Transit O&M (Bus)	El Dorado Transit - Preventive Maintenance - FTA 5307	El Dorado Transit (Subrecipient) - Preventive maintenance for urban transit services within El Dorado County as well as commuter service to / from Sacramento. (Sacramento Urbanized Area.FFY 2015: $258,434)	Completion by 2020	$1,043,115	$1,043,115
ELD19388	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Broadway Traffic Signals	Install traffic signals on Broadway at Mosquito Road and Blairs Lane.	2021-2036	$1,032,650	$1,615,000
ELD19364	Yes	El Dorado	El Dorado County	A- Bike & Ped	El Dorado Trail Ext. - Los Trampas Dr to Halcon Rd	El Dorado Trail, from Los Trampas Dr to Halcon Rd: Extend trail approx. 5,800 ft. Improvements include: asphalt paving of 8-ft wide Class I bike path with 2-ft wide graded shoulders, and grading of an approx. 6-ft wide multi-use trail adjacent to the bike path, where feasible. (CIP#97012) (Emission Benefits in kg/day: 0.01 ROG)	Completion by 2020	$1,013,248	$1,013,248
ELD19375	Yes	El Dorado	El Dorado County	A- Bike & Ped	New York Creek Trail East - Phase 2	Construct 1,233-feet of Class I bike path within the El Dorado Hills CSD property from the west end of the New York Creek Trail East - Phase 1 project to Stephen Harris Park. Improvements include an 8-foot wide Class I bike path with 2-foot wide shoulders and a 12-foot wide prefabricated bridge over New York Creek. (Toll Credits for PE, ROW, and CON. Emission Benefits in kg/day: 0.02 ROG, 0.01 NOx)	Completion by 2020	$1,000,000	$1,000,000
ELD19386	Yes	El Dorado	El Dorado County	C- Maintenance & Rehabilitation	Bass Lake Road Overlay	Bass Lake Road, from the intersection of Old Sienna Ridge Road to Parkdale Lane, approximately 2 miles long, 24 feet wide: Overlay. (CIP 72189) (Toll Credits for PE & CON).	Completion by 2020	$900,000	$900,000
VAR56164	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Long-Term Priority Corridor Deployment of ITS	Long-Term Priority Corridor Deployment of ITS	2021-2036	$900,000	$1,408,000
VAR56170	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Priority Corridor Deployment of ITS Latrobe Road/El Dorado Hills	Priority Corridor Deployment of ITS Latrobe Road/El Dorado Hills	Completion by 2020	$900,000	$944,000
ELD14090	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Clay Street at Cedar Ravine	In Placerville, Clay Street at Main/Cedar Ravine: realign to a four-way intersection. (To be constructed in conjunction with Clay Street Bridge Replacement, ELD19257. Bridge construction, will be funded through Highway Bridge Program, shown in HBP Grouped Listing).	Completion by 2020	$870,590	$870,590
VAR56168	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Placerville Signal System Technology Advances	Placerville Signal System Technology Advances	Completion by 2020	$800,000	$839,000
ELD19425	Yes	El Dorado	El Dorado County	A- Bike & Ped	Carson Road Bike Lanes	Install bike lanes on Carson Road from Jacquier Road to Larsen Drive (on climbing shoulder).	2021-2036	$787,500	$961,000
CAL20487	Yes	El Dorado	Caltrans D3	G- System Management, Operations, and ITS	US 50 Drainage Improvements	On US 50 in Placerville at 0.5 mile west of junction with SR 49 - Install slotted drain and drainage inlets in median (ED-50-17.0/17.3) [SHOPP Program 201.015] (Toll credits for CON)	Completion by 2020	$780,000	$780,000
ELD19255	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Silva Valley Pkwy/Golden Eagle Ln - Signalization	Signalize intersection at Silva Valley Pkwy and Golden Eagle Ln (Silva Valley Elem School). CIP#GP182	2021-2036	$768,000	$1,201,000
ELD19344	Yes	El Dorado	El Dorado County	D- Programs & Planning	Cold Springs Rd Safety Improvements - Fox Print Ct to Skyview Ln	Cold Springs Rd from Fox Print Ct to Skyview Ln: Modify super-elevation, widen southbound right shoulder, install traffic warning signage and re-stripe roadway. Coordinates with ELD19308. (CIP73360) HSIP4-03-008	Completion by 2020	$764,965	$764,965
ELD19358	Yes	El Dorado	City of Placerville	A- Bike & Ped	Western Placerville Interchanges Phase 1B	In Placerville: Construct a sidewalk along the north side of Fair Lane between the County Government Center and County Fair Plaza Commercial center. Widen and construct Class II Bike Lanes on the same segment of Fair Lane in both directions. (ENV/ENGR included on ELD16060, Phase 1A) (Toll credits for ROW and CON) (Emission Benefits in kg/day: 0.03 ROG, .01 NOx)	Completion by 2020	$762,000	$762,000
ELD19436	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Bush Court/Roddan Court	Bush Court/Roddan Court	Completion by 2020	$705,482	$740,000
VAR56173	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	Silva Valley Road Bike Lanes	From the new connection with White Rock Road to Green Valley Road	2021-2036	$700,000	$854,000
ELD19333	Yes	El Dorado	El Dorado County	G- System Management, Operations, and ITS	Metal Beam Guardrail Installation - Various Locations	Roadway Safety Improvements: Construction/reconstruction of metal beam guardrail at various locations throughout the County. Federally funded (HSIP & RSTP) programs. (CIP OP005)	2021-2036	$672,000	$1,051,000
ELD19368	Yes	El Dorado	El Dorado County Transit	E- Transit Capital (Vehicles)	El Dorado County Transit Authority 5310 Bus and Minivan Replacement	FTA 5310 funds will be used to replace five (5) Larger Buses that can accommodate 18 passengers (incl. 2 wheelchair positions) & a driver, and one (1) Minivan that can accommodate 6 passengers (incl. 2 wheelchair positions) & a driver. (Toll Credits for CON).	Completion by 2020	$570,000	$570,000
ELD19415	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Schnell School Road Traffic Signal	Install traffic signal at Schnell School Road.	Completion by 2020	$550,000	$577,000
VAR56153	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	Green Valley Road Bike Lanes	Class II Bike Lanes from Francisco Dr. to Pleasant Grove Middle School/Pleasant Grove Middle School to Lock and Lock to Francisco Dr.	2021-2036	$550,000	$671,000
ELD19439	Yes	El Dorado	El Dorado County	A- Bike & Ped	Latrobe Road Bike Lanes	Investment Boulevard to Deer Creek/SPTC	2021-2036	$525,000	$641,000
ELD19437	Project Development Only	El Dorado	El Dorado County	G- System Management, Operations, and ITS	SR 49 Realignment	SR 49 Realignment	Completion after 2036	$28,800,000	
ELD19440	Yes	El Dorado	El Dorado County	A- Bike & Ped	Lotus Road Bike Lanes	Phase 1: Gold Hill Road to SR 49	2021-2036	$525,000	$641,000
ELD19444	Yes	El Dorado	El Dorado County	A- Bike & Ped	Marshall Road Bike Lanes	Class II bike lanes from the top of Prospectors Road to Black Oak Mine Road	2021-2036	$525,000	$641,000
ELD19457	Yes	El Dorado	El Dorado County	A- Bike & Ped	Pleasant Valley Road Bike Lanes	Phase 2: Missouri Flat Road to Mother Lode Drive	2021-2036	$525,000	$641,000
ELD19432	Yes	El Dorado	El Dorado County	A- Bike & Ped	El Dorado Trail	Construct a Class I bike path from Los Trampas Drive to Halcon Road.	2021-2036	$500,000	$610,000
VAR56166	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Lower US 50 Freeway Management	Lower US 50 Freeway Management	Completion by 2020	$500,000	$524,000
CAL20542	Yes	El Dorado	Caltrans D3	C- Maintenance & Rehabilitation	US 50 Culvert Damage Repair	El Dorado County, US 50, near Pollock Pines, at Bridal Veil Falls - Repair culvert damaged by wildfire (PM 36.8) [CTIPS ID 107-0000-0994]	Completion by 2020	$498,000	$498,000
ELD19406	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50 HOV Lanes	HOV Lanes - Phase 3: US 50-Ponderosa Road to Greenstone Road (CIP53116)	Completion after 2036	$34,730,208	
ELD19290	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50 HOV Lanes - Phase 2B	Phase 2B (Cameron Park Dr to Ponderosa Rd) - Add HOV lanes in median of US50 between Cameron Park Dr and Ponderosa Rd Interchanges. PA&ED completed by Caltrans. Caltrans advancing project design through Cooperative Agreement with the County. Intergovernmental Agreement between the County and Shingle Springs Band of Miwok Indians for funding (coded as Local Agency Funds). (See ELD19211/CIP53110 for Phase 1, ELD19287/CIP53113 for Phase 2A and ELD19289/CIP53116 for future unfunded Phase 3 in MTP). CIP53122	Completion after 2036	$22,637,000	
VAR56136	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	AVI/AVL For Emergency Vehicles	AVI/AVL For Emergency Vehicles	2021-2036	$400,000	$626,000
VAR56147	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	El Dorado County Integration Project	El Dorado County Integration Project	Completion by 2020	$400,000	$420,000

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Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
ELD19181	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Cambridge Rd Interchange - Phase 1	Interchange Improvements: this phase includes widening existing EB and WB on-/off-ramps; addition of new WB on-ramp; reconstruction of local intersections; and installation of traffic signals at EB and WB ramp terminal intersections; preliminary engineering for Phase 2 to be performed under Phase 1. (See ELD19218/GP149 for Phase 2) CIP#71332	Completion after 2036	$7,843,000	
ELD19397	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Cambridge Rd Interchange - Phase 2	Phase 2 Improvements to Cambridge Road Interchange. Phase 2 project consists of bridge widening to add lanes, widen ramps, and construct WB auxiliary lane from the Bass Lake Road Interchange to Cambridge Road Interchange. Preliminary engineering for Phase 2 to be performed with Phase I project (ELD19181/71332). CIP #GP149	Completion after 2036	$11,935,000	
ELD19177	Project Development Only	El Dorado	El Dorado County	B- Road & Highway Capacity	US 50/Cameron Park Dr Interchange Improvements	Interchange Improvements: this project includes detailed study to identify capacity improvements alternatives and selection of preferred alternative; assumes reconstruction of existing US50 bridges to widen Cameron Park Dr to 8 lanes under the overcrossing; road and ramp widenings. (CIP72361)	Completion after 2036	$47,625,800	
VAR56162	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Installation of CCTV	Installation of CCTV	2021-2036	$390,000	$610,000
ELD19349	Yes	El Dorado	El Dorado County Transit	E- Transit Capital (Vehicles)	Bus and Minivan Replacement	Replace four gasoline powered minivans and two gasoline powered larger buses. (Uses Toll Credits for local match).	Completion by 2020	$386,000	$386,000
ELD19429	Yes	El Dorado	El Dorado County	A- Bike & Ped	Country Club Drive Bike Lanes	Phase 1: Install bike lanes on Country Club Drive from Bass Lake Road to Cambridge Road	2021-2036	$350,000	$427,000
ELD19430	Yes	El Dorado	El Dorado County	A- Bike & Ped	Durock Road Bike Lanes	Install bike lanes on entire length of Durock Road.	2021-2036	$350,000	$427,000
ELD19448	Yes	El Dorado	El Dorado County	A- Bike & Ped	Missouri Flat Road Bike Lanes	Phase 1: Campus Drive to existing Class II on the south side of US 50	2021-2036	$350,000	$427,000
ELD19456	Yes	El Dorado	El Dorado County	A- Bike & Ped	Pleasant Valley Road Bike Lanes	Phase 1: Big Cut Road to Missouri Flat Road	2021-2036	$350,000	$427,000
VAR56169	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Portable Traffic Management Devices	Portable Traffic Management Devices	2021-2036	$350,000	$547,000
ELD19423	Yes	El Dorado	City of Placerville	A- Bike & Ped	Broadway Bike Lanes	Add bike lanes: Main Street to Schnell School Road	2021-2036	$300,000	$469,000
ELD19447	Yes	El Dorado	City of Placerville	A- Bike & Ped	Middletown Road Bike Lanes	Install bike lanes on Middletown Road from Canal Street to Cold Springs Road.	2021-2036	$300,000	$366,000
ELD19465	Yes	El Dorado	City of Placerville	A- Bike & Ped	Upper Broadway Bike Lanes	Install bike lanes on Upper Broadway from Schnell School Road to Point View Drive.	2021-2036	$300,000	$366,000
VAR56178	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Traveler Information Dissemination Devices at Key Locations	Traveler Information Dissemination Devices at Key Locations	Completion by 2020	$300,000	$315,000
VAR56142	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	Bike Path Parallel to US 50 on the north side - EDH to Bass Lake Connection	Phase 2: EDH to Bass Lake Connection From Silva Valley Road to El Dorado Hills Village Center Shopping Center	2021-2036	$300,000	$366,000
VAR56148	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	El Dorado Hills Boulevard Bike Lanes	Phase 1: Saratoga Way to Governor Drive/St. Andrews	2021-2036	$297,500	$363,000
VAR56177	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Traffic Control System Procurement	Traffic Control System Procurement	Completion by 2020	$250,000	$262,000
VAR56181	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	US 50 Winter Traffic Management	US 50 Winter Traffic Management	Completion by 2020	$250,000	$262,000
ELD19370	Yes	El Dorado	City of Placerville	G- System Management, Operations, and ITS	Broadway Safety Improvements	On Broadway between Mosquito Rd and Schnell School Rd: Stripe bike lanes between Blairs Lane and Schnell School Road. Install speed feedback signs, lights, warning signs; Upgrade crosswalks. (HSIP6-03-012)	Completion by 2020	$245,600	$245,600
ELD19382	Yes	El Dorado	El Dorado County	E- Transit Capital (Minor)	El Dorado County Fleet Electrification/Hybrid	Pay for the incremental cost difference between a plug-in electric (PEV) or plug-in electric gasoline hybrid vehicle and its gasoline-powered version for the El Dorado County Fleet new vehicle purchases. (ELD19385 is the installation of electric vehicle (EV) charging infrastructure to support the new vehicles).	Completion by 2020	$222,940	$222,940
ELD19452	Yes	El Dorado	El Dorado County	A- Bike & Ped	Old Bass Lake Rd – EDH to Bass Lake Connection	Phase 1: EDH to Bass Lake Connection. Between gates, using existing roadway as Class I path from Tong Road to Old Bass Lake Road.	2021-2036	$200,000	$244,000
ELD19454	Yes	El Dorado	El Dorado County	A- Bike & Ped	Palmer Drive Bike Path Connection	From Wild Chaparral Drive to Palmer Drive	2021-2036	$200,000	$244,000
VAR56158	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Install Communication Phase II	Install Communication Phase II	Completion by 2020	$200,000	$210,000
VAR56160	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Install Ice Detection and Warning Systems	Install Ice Detection and Warning Systems	2021-2036	$200,000	$313,000
VAR56161	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Install Rock/Mudslide and Avalanche Detection and Warning System	Install Rock/Mudslide and Avalanche Detection and Warning System	2021-2036	$200,000	$313,000
VAR56165	Yes	El Dorado	El Dorado County, Caltrans District 3	D- Programs & Planning	Long-Term Regional ITS Plan Update	Long-Term Regional ITS Plan Update	2021-2036	$200,000	$313,000
VAR56167	Yes	El Dorado	El Dorado County, Caltrans District 3	D- Programs & Planning	Medium-Term Regional ITS Plan Update	Medium-Term Regional ITS Plan Update	2021-2036	$200,000	$313,000
VAR56149	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	El Dorado Hills Boulevard Bike Path	Phase 2: Utilizing an existing golf cart undercrossing of Serrano Parkway, extend the bike path from the current terminus at Serrano Parkway to Raley's Center	2021-2036	$200,000	$244,000
VAR56154	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	Harvard Way Bike Path	From Clermont Road to El do Hills Boulevard	2021-2036	$200,000	$244,000
ELD19438	Yes	El Dorado	El Dorado County	A- Bike & Ped	Jacquier Road Bike Lanes	Placerville City limit to Carson Road	2021-2036	$175,000	$214,000
ELD19446	Yes	El Dorado	El Dorado County	A- Bike & Ped	Meder Road Bike Lanes	Phase 1: Cameron Park Drive to Paloran Court	2021-2036	$175,000	$214,000
ELD19449	Yes	El Dorado	El Dorado County	A- Bike & Ped	Missouri Flat Road Bike Lanes	Phase 2: Golden Center Drive near Wal-Mart to Pleasant Valley Road	2021-2036	$175,000	$214,000
ELD19451	Yes	El Dorado	El Dorado County	A- Bike & Ped	Mother Lode Drive Bike Lanes	Phase 1: Missouri Flat Road to Lindberg Ave	2021-2036	$175,000	$214,000
ELD19424	Yes	El Dorado	El Dorado County	A- Bike & Ped	Cameron Park Drive Bike Lanes	Install bike lanes on entire length of Cameron Park Drive. (CIP72307)	Completion by 2020	$162,000	$170,000
ELD19443	Yes	El Dorado	City of Placerville	A- Bike & Ped	Mallard Lane/Green Valley Road Bike Lanes	Install bicycle lanes on Mallard Lane from the City limit to Green Valley Road, and on Green Valley Road from Mallard Lane to Placerville Drive.	2021-2036	$150,000	$183,000
ELD19455	Yes	El Dorado	City of Placerville	A- Bike & Ped	Placerville Drive Bike Lanes	Install bike lanes on Placerville Drive from Green Valley Road to Forni Road / US 50.	2021-2036	$150,000	$183,000
VAR56156	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Install Animal Vehicle Collision Avoidance Systems-Hwy 49 and US 50	Install Animal Vehicle Collision Avoidance Systems-Hwy 49 and US 50	2021-2036	$150,000	$235,000
ELD19467	Yes	El Dorado	El Dorado County Transit	E- Transit Capital (Vehicles)	Vehicle Procurement	Carryover PM funds from FY 11/12 used as Capital for acquisition of three minivans for enhanced demand response service in urbanized area.	Completion by 2020	$141,900	$141,900
ELD19426	Yes	El Dorado	El Dorado County	A- Bike & Ped	Coach Lane Bike Lanes	Install bike lanes on entire length of Coach Lane.	2021-2036	$131,250	$160,000
ELD19459	Yes	El Dorado	El Dorado County	A- Bike & Ped	Ponderosa Road Bike Lanes	US 50 to Meder Road	2021-2036	$131,250	$160,000
VAR56143	Yes	El Dorado	El Dorado County, Caltrans District 3	D- Programs & Planning	Communications Plan	Communications Plan	Completion by 2020	$100,000	$105,000
VAR56159	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Install Downhill Speed Warning System on U.S. 50 Near Camino	Install Downhill Speed Warning System on U.S. 50 Near Camino	2021-2036	$100,000	$156,000
VAR56141	Yes	El Dorado	El Dorado County, Caltrans District 3	D- Programs & Planning	Web Page Development	Web Page Development	Completion by 2020	$100,000	$105,000
VAR56171	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Procure and deploy Portable Dynamic Message Signs (DMS) and Trailblazers	Procure and deploy Portable Dynamic Message Signs (DMS) and Trailblazers	Completion by 2020	$90,000	$94,000
ELD19453	Yes	El Dorado	El Dorado County	A- Bike & Ped	Palmer Drive Bike Lanes	Add bike lanes along full length of Palmer Drive	2021-2036	$87,500	$107,000
ELD19462	Yes	El Dorado	El Dorado County	A- Bike & Ped	Saratoga Way Extension – Class II Bike Lanes	Class II Bike Lanes included in extension of Saratoga Way from Finders Way to County Line. (alternatively construct a Class I bike path prior to consturction of extension of Saratoga Way to Iron Point Road)	2021-2036	$75,000	$92,000
VAR56163	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Landslide Sensor Integration Project	Landslide Sensor Integration Project	Completion by 2020	$60,000	$63,000
ELD19383	Yes	El Dorado	EDCTC	A- Bike & Ped	Western El Dorado County Bicycle Travel Opportunities Map	Create map for the area of El Dorado County from the Tahoe Regional Planning Agency/EDCTC border along the Sierra Crest to the western El Dorado County line.	Completion by 2020	$56,478	$56,478
ELD19385	Yes	El Dorado	El Dorado County	E- Transit Capital (Minor)	El Dorado County Fleet Electrification - EV Infrastructure	Install electric vehicle (EV) charging infrastructure to support new vehicles (purchased in ELD19382) at their respective County facilities.	Completion by 2020	$55,735	$55,735
VAR56145	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Continued Signal Coordination Improvements 2010-2020	Continued Signal Coordination Improvements	Completion by 2020	$50,000	$52,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
VAR56144	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Continued Signal Coordination Improvements 2020-2030	Continued Signal Coordination Improvements	2021-2036	$50,000	$78,000
VAR56175	Yes	El Dorado	El Dorado County, Caltrans District 3, SACOG	G- System Management, Operations, and ITS	STARNET Integration	STARNET Integration	Completion by 2020	$40,000	$42,000
VAR56176	Yes	El Dorado	El Dorado County, Caltrans District 3	G- System Management, Operations, and ITS	Traffic Control System (TCS) Upgrade	Traffic Control System (TCS) Upgrade	Completion by 2020	$30,000	$31,000
VAR56151	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	El Dorado Hills to Bass Lake Connection (phase 1)	Class III Bike Route on Tong Road, Class III Bike Route on Old Bass Lake Road.	2021-2036	$25,000	$31,000
ELD19445	Yes	El Dorado	El Dorado County	A- Bike & Ped	Marshall Road Bike Route	Class III Bike Route on Marshall Road from Black Oak Mine Road to SR 193	2021-2036	$20,000	$24,000
ELD19460	Yes	El Dorado	El Dorado County	A- Bike & Ped	Prospectors Road Class III Bike Route	Class III bike route on the entire length of Prospectors Road	2021-2036	$12,500	$15,000
VAR56150	Yes	El Dorado	El Dorado County, El Dorado Hills CSD	A- Bike & Ped	El Dorado Hills Boulevard Bike Path (phase 1)	Sign and stripe existing Class I Paths in two locations: 1) from Harvard Way to St. Andrews 2) from Governors Drive to Brittney Way	2021-2036	$10,000	$12,000
VAR56172	Yes	El Dorado	El Dorado County, Caltrans District 3	D- Programs & Planning	Remote Traffic Control Workstation	Remote Traffic Control Workstation	2021-2036	$8,000	$13,000
ELD19442	Yes	El Dorado	City of Placerville	A- Bike & Ped	Main Street Bicycle Improvements	Install bicycle lanes and route signage on Main Street from Spring Street to Clay Street.	2021-2036	$7,500	$9,000
VAR56157	Yes	El Dorado	El Dorado County, Caltrans District 3	A- Bike & Ped	Install bicycle loop detection at all major intersections	Install bicycle loop detection at all major intersections	2021-2036	$6,000	$9,000
ELD19434	Yes	El Dorado	El Dorado County	A- Bike & Ped	Gold Hill Road Bike Route	Install bicycle route signs and markings on Gold Hill Road from State Route 49 to Lotus Road.	2021-2036	$4,000	$5,000
ELD19427	Yes	El Dorado	El Dorado County	A- Bike & Ped	Commerce Way Bike Route	Install bicycle route signs and markings on entire length of Commerce Way.	2021-2036	$1,000	$1,000
ELD19433	Yes	El Dorado	El Dorado County	A- Bike & Ped	Enterprise Drive Bike Route	Install bicycle route signs and markings on entire length of Enterprise Drive.	2021-2036	$1,000	$1,000
CAL20518	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	CCTV Cameras at Various Locations	In El Dorado, Nevada, Placer, Sacramento and Yolo counties on Routes 5, 50, 51, 80, 89, 99 and 267 at Various Locations - Upgrade closed caption televisions (CCTV) [EFIS ID 0313000197; CTIPS ID 107-0000-0966] (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,734,000	$2,734,000
CAL20571	Yes	Multiple Counties	Caltrans D3	A- Bike & Ped	Complete Streets Improvements to the SHS	Complete Streets improvements in various locations on the State Highway System (SHS) in El Dorado, Placer, Sacramento, Sutter, Yuba and Yolo Counties.	2021-2036	$50,000,000	$78,197,000
CAL20509	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	Feather River Bridge Scour Mitigation	In Sutter County near Yuba City, between SR 99 and SR 70 on SR 20, at Feather River Bridge #18-009 - Scour mitigation (PM 17.0) [EFIS ID 0313000033; CTIPS ID 107-0000-0969] [Total Project Cost $11,210,000 in 17/18 FY] (Toll Credits for PE)	Completion by 2020	$11,210,000	$11,210,000
CAL20548	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	HAR Upgrades - Various Counties and Routes	In Sacramento, Butte, El Dorado, Nevada, Placer and Yolo Counties, on Routes 5, 50, 70, 80, 89, 99 and 267, at various locations - Upgrade Highway Advisory Radios (HAR) [CTIPS ID 107-0000-1001] (Toll credits for PE, ROW, CON)	Completion by 2020	$3,130,000	$3,130,000
CAL20477	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 & SR 99 Vegetation Control Measures	In and near Sacramento, on I-5 and SR 99, from 0.6 mile south of Lambert Road Undercrossing to Elverta Road at various locations - Provide vegetation control measures under guardrails and interchange areas (Toll Credits) [CTIPS ID 107-0000-0916; EFIS ID 03-1200-0098]	Completion by 2020	$2,967,000	$2,967,000
CAL20491	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 Pump House	In Sacramento, on I-5, about 1.4 miles south of Richards Blvd. - Replace all pump house components (mechanical and electrical) (PM 23.3) [Toll Credits] (CTIPS ID 107-0000-0932)	Completion by 2020	$3,218,000	$3,218,000
CAL18812	Yes	Multiple Counties	Caltrans D3	B- Road & Highway Capacity	I-80 / U.S. 50 Bus/Carpool Lanes in both directions	Bus/Carpool Lanes in both directions from Richards Blvd. (in Davis) to the I-5/US 50 Interchange. Inc. new bike bridge across the Yolo Causeway.	2021-2036	$300,000,000	$469,180,000
CAL20653	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Installation of fiber optics communication lines	In Sacramento, from Yolo County line to 0.2 mile west of Watt Avenue Overcrossing. Install fiber optic cable	2021-2036	$9,500,000	$14,857,000
CAL20609	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Ramp Meters	Installation of Ramp Meters: Various Locations in Placer, Sacramento, and Yolo Counties.	Completion by 2020	$4,800,000	$5,035,000
CAL20533	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Replace/Upgrade Sign Panels/Structures at Various Locations	In Sacramento, El Dorado and Yolo counties, on US 50, I-5, SR 51, I-80 and SR 99 at various locations - Replace sign panels and upgrade sign structures [EFIS ID 0314000244; CTIPS ID 107-0000-0987] (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,782,000	$2,782,000
CAL20656	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Roadway Weather Information Stations (RWIS)	In Sacramneto, El Dorado, Nevada, Placer and Yolo Counties, on Routes 5, 28, 50, 51, 80, 89, 99 and 267 at various locations. Repair and upgrade roadway information systems	2021-2036	$2,730,000	$3,331,000
CAL20547	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	RWIS Upgrades - Various Counties	In Sacramento, El Dorado, Nevada, Placer and Yolo Counties, on Routes 5, 28, 50, 51, 80, 89, 99 and 267, at various locations: Repair and upgrade roadway information systems (RWIS) also known as ITS, Intelligent Transportation Systems. [CTIPS ID 107-0000-1000] (Toll credits for PE, ROW, CON)	Completion by 2020	$2,730,000	$2,730,000
CAL20502	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Sac and Yolo Ramp Meters	In Sacramento and Yolo Counties, install ramp meters and, if possible, HOV Bypass lanes on I-80, SR 51/Capital City Freeway, and SR 99, focusing the project on SR 99 southbound afternoon traffic from downtown to Cosumnes River Blvd. [CTIPS ID 107-0000-0939]	Completion by 2020	$11,500,000	$11,500,000
CAL20652	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Sac/Yolo Ramp Meters	In Sacramento and Placer Counties, on Routes 51, 65 and 99 at various locations. Install ramp meters.	Lump Sum or Ongoing	$28,530,000	$37,492,000
CAL17380	Yes	Multiple Counties	Caltrans D3	D- Programs & Planning	SACOG Region Emergency Repair Program	Lump Sum - Emergency Repair (excluding Federal Emergency Relief Program funds)for non-capacity increasing projects only.	Completion by 2020	$400,000	$400,000
CAL20615	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Bridge Preservation	Various bridge preservation projects throughout the six-county region.	Lump Sum or Ongoing	$860,000,000	$1,130,148,000
CAL20616	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Collision Reduction	SHOPP - Collision Reduction	Lump Sum or Ongoing	$505,000,000	$663,634,000
CAL20617	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Emergency Response	SHOPP - Emergency Response	Lump Sum or Ongoing	$10,000,000	$13,141,000
CAL20584	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Facilities	SHOPP- Facilities	Lump Sum or Ongoing	$20,000,000	$26,283,000
CAL20618	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Mandates	SHOPP - Mandates	Lump Sum or Ongoing	$9,500,000	$12,484,000
CAL20622	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Minor	SHOPP - Minor	Lump Sum or Ongoing	$200,000,000	$262,825,000
CAL20619	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Mobility	SHOPP - Mobility	Lump Sum or Ongoing	$105,500,000	$138,640,000
CAL20620	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Roadside Preservation	SHOPP - Roadside Preservation	Lump Sum or Ongoing	$15,000,000	$19,712,000
CAL20621	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	SHOPP - Roadway Preservation	SHOPP - Roadway Preservation	Lump Sum or Ongoing	$570,000,000	$749,052,000
CAL20486	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Shoulder and Centerline Rumble Strips (Safety) at Various Locations	In Butte, Colusa, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo and Yuba counties at various locations - Install shoulder and centerline rumble strips [CTIPS ID 102-0000-0174]	Completion by 2020	$3,470,000	$3,470,000
CAL20430	Yes	Multiple Counties	Caltrans D3	B- Road & Highway Capacity	SR 20 10th St. Bridge Improvements	Widen Bridge: six (6) lanes on 10th St. Bridge in Sutter and Yuba Counties. SUT 20 PM 17.041 to YUB 20 PM 0.044	2021-2036	$60,000,000	$93,836,000
CAL20407	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	SR 70 & SR 20 Adaptive Signals	In Yuba City and Marysville, on SR 70 and SR 20: link traffic signals in each corridor to coordinate the operation of the traffic in real time and adapt traffic signal timing to actual traffic conditions [EFIS ID 0300001108]	2021-2036	$3,075,001	$3,075,001
CAL18808	Project Development Only	Multiple Counties	Caltrans D3	B- Road & Highway Capacity	SR 99 Bus/Carpool Lanes in both directions	Bus/Carpool Lanes in both directions from I-5 to the SR 99/ SR 70 Wye junction in Sacramento and Sutter Counties.	Completion after 2036	$10,000,000	
CAL20614	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on U.S. 50 between I-80 and Cedar Grove	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in El Dorado and Sacramento Counties.	2021-2036	$4,000,000	$4,881,000
SAC18380	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	I-5 at Cosumnes River Blvd.	Extend Cosumnes River Boulevard from Franklin to Freeport with an interchange at I-5. (EA: 03-0L1068L) (T15018000)	Completion by 2020	$85,315,164	$85,315,164
CAL20610	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System On I-80 between SR113 and Bell Road and on Rt-51	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Placer, Sacramento and Yolo Counties.	2021-2036	$5,000,000	$6,101,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
CAL20612	**Project Development Only**	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on SR 65 between I-80 and SR 70	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Placer and Yuba Counties.	Completion after 2036	$4,000,000	
CAL20409	**Yes**	Sutter	Caltrans D3	C- Maintenance & Rehabilitation	SR 99 Landscaping	In Sutter County in and near Yuba City on Rte. 99 from SR 20 to 0.9 mile north of Queens Avenue - Highway planting and upgrade irrigation (PM 30.6/32.7) [SHOPP Roadside Preservation - Highway Planting Restoration] [CTIPS ID 107-0000-0822; EFIS ID 0300020036]	Completion by 2020	$2,526,000	$2,526,000
CAL20550	**Yes**	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Upgrade CMS Panels - Various Counties	In Sacramento, El Dorado, Nevada, Placer, Solano and Yolo Counties, on Routes 5, 50, and 80, at various locations - Upgrade Changeable Message Sign (CMS) panels [CTIPS ID 107-0000-1003] (Toll credits for PE, ROW, CON)	Completion by 2020	$5,320,000	$5,320,000
CAL20654	**Yes**	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Upgrade CMS panels to LED	In Sacramneto, Butte, Colusa, El Dorado, Glenn, Nevada, Placer, Sierra, Sutter, Yolo and Yuba Counties on Routes 5, 50 and 80 at various locations. Upgrae Changeable Message Sign (CMS)	2021-2036	$5,320,000	$6,492,000
CAL20516	**Yes**	Multiple Counties	Caltrans D3	A- Bike & Ped	Upgrade Pedestrian Facilities @ Various Locations	In Yuba, Sacramento, Placer, El Dorado and Butte counties on Various Routes at Various Locations - Upgrade pedestrian facilities [EFIS ID 0312000071; CTIPS ID 107-0000-0974] [Total Project Cost $3,482,000 in 17/18 FY] (Toll Credits for PE, ROW, CON)	Completion by 2020	$3,482,000	$3,482,000
CAL20519	**Yes**	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	Upgrade Traffic Monitoring Stations	In Sacramento, Placer, Yolo and Yuba counties, on Routes 5, 50, 51, 65, 70, 80, 99 and 113, at Various Locations - Upgrade Traffic Monitoring Stations (TMS) [EFIS ID 0313000198; CTIPS ID 107-0000-0967] (Toll Credits for PE, ROW, CON)	Completion by 2020	$5,226,000	$5,226,000
CAL20566	**Yes**	Multiple Counties	Caltrans HQ	F- Transit O&M (General)	FTA 5310 - Paratransit, Inc. Mobility Management Travel Training	Mobility management activities and travel training to assist current and potential paratransit/demand response users who are senior and/or persons with disabilities to learn to use the fixed route transit systems in the SACOG region. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.	Completion by 2020	$400,000	$400,000
CAL20562	**Yes**	Multiple Counties	Caltrans HQ	E- Transit Capital (Vehicles)	FTA 5310 - Pride Industries Replacement Buses	Replace three existing buses that provide transportation to persons with developmental and other disabilities in Placer and Sacramento counties. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$229,500	$229,500
CAL20553	**Yes**	Multiple Counties	Caltrans HQ	F- Transit O&M (Demand Response)	FTA 5310 - Sacramento County DHHS Senior Companions Transportation Program	Provide mileage reimbursement and stipends for low-income volunteers to transport low-income isolated and frail seniors and people with disabilities where traditional transit and paratransit services are otherwise insufficient or inappropriate. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$160,000	$160,000
CAL20558	**Yes**	Multiple Counties	Caltrans HQ	E- Transit Capital (Minor)	FTA 5310 - United Cerebral Palsy Bus Video Monitoring Equipment	Video monitoring equipment for four replacement buses requested by UCP that will transport people with developmental disabilities. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$8,000	$8,000
CAL20556	**Yes**	Multiple Counties	Caltrans HQ	E- Transit Capital (Vehicles)	FTA 5310 - United Cerebral Palsy Replacement Buses	Replace four of the existing 16 passenger buses that provide transportation services to people with developmental disabilities. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$306,000	$306,000
CAL20561	**Yes**	Multiple Counties	Caltrans HQ	E- Transit Capital (Minor)	FTA 5310 - United Christian Centers Replacement Computers & Software	Replace computers and software used to operate existing transportation services to seniors and people with disabilities in Yolo and Sacramento counties. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$2,599	$2,599
CAL20560	**Yes**	Multiple Counties	Caltrans HQ	E- Transit Capital (Vehicles)	FTA 5310 - United Christian Centers Replacement Minivan	Replace an existing minivan used to transport seniors and people with disabilities in Yolo and Sacramento counties. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$48,000	$48,000
CAL20555	**Yes**	Multiple Counties	Caltrans HQ	F- Transit O&M (Demand Response)	FTA 5310 - Yolo County Transportation District Beyond ADA Service	Provide paratransit/demand response services to ADA eligible individuals that go beyond what is required under the Americans with Disabilities Act. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$300,000	$300,000
VAR56128	**Yes**	Multiple Counties	Capital Southeast Connector JPA	D- Programs & Planning	Capital Southeast Connector Project - Project Development	Prepare the Project Approval and Environmental Document (PA/ED) for Segment D2 of the Capital Southeast Connector: Grant Line Rd., from Jackson Highway to White Rock Road: Widen from 2 to 4 lanes as an expressway including a Class I multi-modal trail. Also includes intersection improvements at Kiefer Blvd. and Douglas Road, and 5 new proposed intersections: Rancho Cordova Parkway, University Blvd., Chrysanthy Blvd., North Loop Rd (potential temporary access), and Centennial Dr. (Phase 1). (PE ONLY. MTP Project: SAC24193)	Completion by 2020	$2,259,121	$2,259,121
TBD	**Yes**	Multiple Counties	Capital Southeast Connector JPA	D- Programs & Planning	Capital SouthEast Connector – Segment B3	Segment B3: Widen Grant Line Road from 2 to 4 lanes (thoroughfare), from Bradshaw Road to Bond Road. Complete project development efforts, as needed, to identify and implement improvements along the corridor segment in the near-term, as needed. Improvements may include intersection improvements and frontage improvements that benefit travel for automobiles and commercial vehicles. The project listing also allows for other near-term planned project development activities to advance, including environmental clearance, so the corridor segment can eventually become a four lane facility in a manner that is consistent with the Project Design Guidelines for the corridor.	Completion after 2036	$23,600,000	$36,909,000
TBD	**Yes**	Multiple Counties	Capital Southeast Connector JPA	D- Programs & Planning	Capital SouthEast Connector – Segment C	Segment C: Widen Grant Line Road from 2 to 4 lanes (thoroughfare), from Bond Road to Calvine Road. Complete project development efforts, as needed, to identify and implement improvements along the corridor segment in the near-term, as needed. Improvements may include intersection improvements and frontage improvements that benefit travel for automobiles and commercial vehicles. The project listing also allows for other near-term planned project development activities to advance, including environmental clearance, so the corridor segment can eventually become a four lane facility in a manner that is consistent with the Project Design Guidelines for the corridor.	Completion after 2036	$34,800,000	$54,425,000
TBD	**Yes**	Multiple Counties	Capital Southeast Connector JPA	D- Programs & Planning	Capital SouthEast Connector – Segment D1	Segment D1: Construct 4 lanes (Expressway), from Calvine Road to SR 16 (Jackson Hwy). Complete project development efforts, as needed, to identify and implement improvements along the corridor segment in the near-term, as needed. Improvements may include intersection improvements and frontage improvements that benefit travel for automobiles and commercial vehicles. The project listing also allows for other near-term planned project development activities to advance, including environmental clearance, so the corridor segment can eventually become a four lane facility in a manner that is consistent with the Project Design Guidelines for the corridor.	Completion after 2036	$47,200,000	$73,818,000
VAR56133	**Yes**	Multiple Counties	Capital SouthEast Connector JPA, City of Rancho Cordova, Sacramento County	B- Road & Highway Capacity	Capital SouthEast Connector - Segment D2 - From Douglas Road to White Rock Road.	Partial Construction of Segment D2: Construct 4 lanes (Expressway), from Douglas Road to White Rock Road.	2021-2036	$24,847,500	$30,321,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
VAR56131	Yes	Multiple Counties	Capital SouthEast Connector JPA ,City of Folsom, Sacramento County	B- Road & Highway Capacity	Capital SouthEast Connector - Segment D3 - Prairie City Road to Sacramento/El Dorado County Line	Segment D3: Construct 4 lanes (Expressway), from Prairie City Road to the Sacramento County Line.	Completion by 2020	$48,000,000	$50,347,000
ELD19468	Yes	Multiple Counties	Capital SouthEast Connector JPA, El Dorado County	B- Road & Highway Capacity	Capital SouthEast Connector - Segment E1- From Sacramento/El Dorado County Line to Latrobe Road	Segment E1: Widen White Rock Road from 2 to 4 lanes (thoroughfare), from the Sacramento-El Dorado County line to Latrobe Road.	2021-2036	$6,200,000	$9,696,000
ELD19469	Yes	Multiple Counties	Capital SouthEast Connector JPA, El Dorado County	B- Road & Highway Capacity	Capital SouthEast Connector - Segment E2 - From Latrobe Road to the US 50/Silva Valley Pkwy Interchange	Segment E2: Widen White Rock Road from 2 to 4 lanes (thoroughfare), from Latrobe Road to the US 50/Silva Valley Parkway Interchange.	2021-2036	$9,900,000	$15,483,000
SAC24962	Yes	Sacramento	City of Elk Grove	E- Transit Capital (Major)	Hi Bus from CRC to Elk Grove	This project is to develop an enhanced bus corridor 8.5 miles along Bruceville Rd to Big Horn to Kammerer to 99 between Cosumnes River College and Elk Grove.	2021-2036	$37,813,160	$59,137,000
CAL18320	Yes	Multiple Counties	Capitol Corridor JPA	E- Transit Capital (Major)	Roseville Third Track	On the UP mainline, from Elvas Tower in Sacramento County to Roseville Station in Placer County: Construct third track. Project involves: extension of freight lead track; construction of track and signal improvements; construction of satellite maintenance facility and other associated improvements; and possible relocation of the Roseville rail station to address conflicting train movements that affect capacity. Project improvements will permit service capacity increases for Capitol Corridor in Placer County, with up to ten round trips to Roseville.	2021-2036	$250,800,000	$250,800,000
SAC24420	Project Development Only	Multiple Counties	City of Sacramento and City of West Sacramento	B- Road & Highway Capacity	Sacramento River Crossing	New Northern Bridge: from Sacramento to West Sacramento across the Sacramento River. Includes: Auto, transit, bicycle and pedestrian facilities. The Sacramento River Crossings Alternatives Study analyzed a new crossing at either Richards Blvd or C Street, but final alignment options will be studied in subsequent planning efforts.	Completion after 2036	$150,000,000	
YOL19328	Yes	Multiple Counties	City of West Sacramento	B- Road & Highway Capacity	Broadway Bridge	From West Sacramento to Sacramento, across the Sacramento River, construct the Broadway Bridge, a new southern crossing of the Sacramento River. Project includes: Auto, transit, bicycle and pedestrian facilities. (Local funding is split between the Cities of Sacramento and West Sacramento)	2021-2036	$254,500,000	$254,500,000
Regional Lump Sum 2	Yes	Multiple Counties	Multiple Lead Agencies	A- Bike & Ped	Regional Bicycle and Pedestrian Improvements	Lump sum for bicycle and pedestrian projects throughout the region 2011-2035.	Lump Sum or Ongoing	$2,100,000,000	$2,759,664,000
Regional Lump Sum 4	Yes	Multiple Counties	Multiple Lead Agencies	D- Programs & Planning	Regional Planning, Programs, and Project Analysis	Lump sum for programs, planning, and project analysis throughout the region 2011-2036.	Lump Sum or Ongoing	$1,650,000,000	$2,168,308,000
Regional Lump Sum 3	Yes	Multiple Counties	Multiple Lead Agencies	C- Maintenance & Rehabilitation	Road and Highway Maintenance and Rehabilitation	Lump sum for road and highway maintenance and rehabilitation throughout the region 2011-2036.	Lump Sum or Ongoing	$8,640,000,000	$11,354,048,000
Regional Lump Sum 1	Yes	Multiple Counties	Multiple Lead Agencies	F- Transit O&M (General)	Transit Operations	Transit operations and maintenance 2015-2036	Lump Sum or Ongoing	$5,910,000,000	$7,766,484,000
Regional Lump Sum 5	Yes	Multiple Counties	Multiple Lead Agencies	E- Transit Capital (Vehicles)	Transit Vehicle Replacements	Lump-sum for transit vehicle (light rail, bus, demand response, and shuttles).	Lump Sum or Ongoing	$1,200,000,000	$1,576,951,000
PCT10503	Yes	Multiple Counties	Placer County Transit	E- Transit Capital (Vehicles)	PCT Bus Replacements - 2015	Replace two CNG powered buses currently in use by Placer County Transit. The new CNG buses will be used on regional transit routes connecting Rocklin, Lincoln, Loomis, Auburn and Placer County to Roseville and the Watt/I-80 Light Rail Station. (Emission Benefits in kg/day: 1.49 NOx)	Completion by 2020	$1,082,000	$1,082,000
VAR56126	Yes	Multiple Counties	SACOG	A- Bike & Ped	Bike Share	Implement bike share system in three cities (Davis, Sacramento, and West Sacramento) and provide planning efforts for potential regional expansion of a Bike Share pilot program and create a comprehensive Equity Action Plan. (SACOG Managed Funds are used on preliminary work separate from the federal project.) (Toll Credits for ENG, CON). Toll Credits for ENG, CON	Completion by 2020	$3,905,000	$3,905,000
VAR56028	Yes	Multiple Counties	SACOG	E- Transit Capital (Minor)	Connect Card	Connect Card (previously known as Universal Transit Fare Card): Implement Connect Card in the SACOG region, including hiring a consultant. (Emission Benefits in kg/day: 0.06 ROG, 0.12 NOx) (Project in conjunction with VAR56081, RT On-Board Survey for Connect Card)	Completion by 2020	$11,590,696	$11,590,696
VAR56113	Yes	Multiple Counties	SACOG	D- Programs & Planning	JARC Connect Card Marketing	This project will promote the "Connect Card" universal transit fare card system in the SACOG Region to low-income individuals and those that qualify for reduced fares. The Connect Card will help fulfill the goal of creating more integrated, coordinated, and seamless regional transit systems by allowing users, especially those who cross jurisdictional and transit operator boundaries, in traveling to employment and/or training. ($17,344 in toll credits are being used for the CON match.)	Completion by 2020	$69,376	$69,376
VAR56121	Yes	Multiple Counties	SACOG	D- Programs & Planning	MTP/SCS 2035 Implementation	Planning in SACOG Region: Implement strategies from the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2035. Work includes modeling, data gathering, consulting, and support for local jurisdictions in pursuing SB 375 CEQA benefits. (Toll Credits for CON)	Completion by 2020	$265,000	$265,000
VAR56117	Yes	Multiple Counties	SACOG	F- Transit O&M (Demand Response)	Paratransit, Inc. - New Freedom Mobility Management	Mobility Management Grant. Paratransit, Inc., will provide travel training to low income and limited English speaking persons throughout the SACOG region.	Completion by 2020	$312,500	$312,500
VAR56101	Yes	Multiple Counties	SACOG	D- Programs & Planning	Planning Programming and Monitoring (RSTP) Phase 2	Conduct necessary planning work to prepare 2016 MTP/SCS. Perform state and federal programming and monitoring activities, including revisions to the MTIP and STIP, ensuring timely delivery of projects using state and federal funds, coordination with FHWA, FTA, Caltrans, CTC, transit operators, and local project sponsors. Ongoing. (Programming and Monitoring work is eligible for RSTP per 23 CFR, Part 450, section 133.) (Phase 1, VAR56008)	Completion by 2020	$1,152,040	$1,152,040
VAR56125	Yes	Multiple Counties	SACOG	D- Programs & Planning	Regional Bicycle and Pedestrian Data Collection	In the SACOG Region: develop regional standards for evaluating bicycle/pedestrian projects, procure automated bicycle/pedestrian counters, and develop a smartphone application for collecting user's bicycle/pedestrian travel data (Toll Credits for CON).	Completion by 2020	$559,510	$559,510
VAR56081	Yes	Multiple Counties	SACOG	D- Programs & Planning	Regional Transit On-Board Survey for Connect Card	Pre and post on-board survey of transit riders to determine current market and subsequent availability and usage of the Connect Card (VAR56028). This will identify needs for outreach and develop strategies to increase Connect Card availability and usage for underrepresented transit riders.	Completion by 2020	$450,000	$450,000
VAR56096	Yes	Multiple Counties	SACOG	D- Programs & Planning	Roseville Transit Mobility Management	The proposed mobility management services would enhance the ability of passengers to successfully ride transit in multiple areas (Placer County, Loomis, Rocklin,Lincoln, Auburn and Roseville). The goal of the program would include providing travel training from transit staff, trip planning training, and practice trips with staff.	Completion by 2020	$47,500	$47,500
VAR56130	Yes	Multiple Counties	SACOG	F- Transit O&M (General)	SACOG Technical Assistance to Transit Operators	Support small Transit operators in preparation of the National Transit Database in order to maximize the amount of funds generated in the region. Support operators in developing transit asset management (TAM) plans which would include capital asset inventories and condition assessments. The asset inventory and condition data must also be reported to the NTD. Continue to provide ongoing grants management support as well as planning and programming activities necessary to submit transit grant applications to the FTA. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5307 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$130,000	$130,000
VAR56118	Yes	Multiple Counties	SACOG	F- Transit O&M (Demand Response)	Sacramento County Dept. of Human Assistance - New Freedom Operating Assistance	Provide mileage reimbursements to low-income seniors who provide rides to fellow seniors to non-emergency medical appointments and other necessary travel not served by transit.	Completion by 2020	$200,000	$200,000
YCT18198	Yes	Multiple Counties	SACOG	E- Transit Capital (Major)	Sacramento-West Sacramento Downtown/Riverfront Streetcar Project (Phase 1)	Construction of the Phase 1 of the Downtown/Riverfront Streetcar. The alignment runs from West Sacramento Civic Center/Riverfront Street to the Midtown entertainment, retail, and residential district of Sacramento.	Completion by 2020	$150,000,000	$150,000,000
YCT18199	Yes	Multiple Counties	Multiple Lead Agencies	E- Transit Capital (Major)	Sacramento-West Sacramento Downtown/Riverfron Streetcar Extension	An extension of the Phase 1 Downtown/Riverfront streetcar in Downtown Sacramento and West Sacramento.	2021-2036	$272,700,000	$426,485,000

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VAR56184	Yes	Multiple Counties	SACOG	D- Programs & Planning	Transportation Demand Management (TDM) Phase 3	TDM is a general term for strategies that result in more efficient use of transportation resources. SACOG's TDM program promotes alternative mode use in the SACOG region (rideshare, carpooling, vanpooling, public transit, bicycling, walking, and telecommuting. Outreach is done through partners (TMAs, and public agencies working with employers). Provide funding for 12 Transportation Management Organizations (TMOs) in region through grants. (Emission Benefits: ROG 0.54 and NOx 0.5 kg/day) (This is a continuation of Phase 2, VAR56025)	Completion by 2020	$1,554,999	$1,554,999
VAR56116	Yes	Multiple Counties	SACOG	F- Transit O&M (Bus)	WPCTSA - New Freedom Operating Assistance	Western Placer Consolidated Transportation Services Agency: Operating assistance for "Health Express," a low-to-no cost, scheduled, door-to-door, shared ride service for Placer County residents needing transportation to non-emergency medical appointments.	Completion by 2020	$600,000	$600,000
VAR56119	Yes	Multiple Counties	SACOG	F- Transit O&M (Demand Response)	YCTD - New Freedom Operating Assistance	Provide Yolobus Special (paratransit) service to Yolo Co. residents to/from medical appointments beyond YCTD's ADA required area.	Completion by 2020	$240,000	$240,000
SAC24669	Yes	Multiple Counties	Sacramento County	F- Transit O&M (Bus)	Sacramento County Department of Human Assistance JARC	2007 JARC CA-37-X114 ($52,119) Senior Volunteers' Foster Grandparents/Senior Companion Program. 2008 JARC CA-37-X119 ($814,880) 1. Senior Volunteers Transportation Reimbursement Foster Grandparents and Senior Companion Programs. 2. Mather Community Campus Shuttle Services. 3. Program Administration.2009 New Freedom CA-57-X043 ($152,275) 1. Senior Volunteers Senior Companion Program and the Asian Community Center (ACC) Meals on Wheels Program. 2. ACC Meals on Wheels shuttle service. 3. Program Administration.	Completion by 2020	$1,983,961	$1,983,961
SAC24694	Yes	Multiple Counties	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	City of Folsom Stage Lines Replacement of Low Floor Buses	City of Folsom (subrecipient): Replace one 30-foot bus including related equipment and spare parts.	Completion by 2020	$419,046	$419,046
REG18010	Yes	Multiple Counties	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	Paratransit Vehicle Replacement FY10/11 to FY13/14	Purchase replacement and some expansion vehicles and communication equipment to be used by Paratransit, Inc to provide complementary ADA paratransit service on behalf of RT.	Completion by 2020	$7,297,205	$7,297,205
PAR10032	Yes	Multiple Counties	Sacramento Regional Transit District	F- Transit O&M (Demand Response)	Paratransit, Inc. Travel Training and Mobility Management	Paratransit, Inc. (Subrecipient): Provide regional travel training and mobility management services.	Completion by 2020	$437,500	$437,500
REG17954	Yes	Multiple Counties	Sacramento Regional Transit District	F- Transit O&M (Light Rail)	South Sacramento Corridor Phase II Operating Assistance	Provide operating assistance for the operation of 4.3 mile extension of the Blue Line light rail from Meadowview Station to Cosumnes River College.	Completion by 2020	$12,000,000	$12,000,000
VAR56006	Yes	Multiple Counties	SMAQMD	D- Programs & Planning	Spare the Air Phase 2	Sacramento Federal Non-attainment Area: Spare The Air Voluntary Driving Curtailment Program. [Continued from SAC21080, Larger MTP project is VAR56022] (Emission Benefits in kg/day: ROG 0.2, NOx 0.2)	Completion by 2020	$8,106,627	$8,106,627
ELD19367	Yes	Multiple Counties	USFS El Dorado National Forest	D- Programs & Planning	Motorized Recreation Map	Update and reprint Forest Motorized Opportunity Guides. (RM-13-013)	Completion by 2020	$53,500	$53,500
PLA25511	Yes	Multiple Counties	Western Placer CTSA	F- Transit O&M (Bus)	New Freedom (Rural) Operating Assistance	Operating Assistance for the rural portion of the "Health Express." This service is being provided as a new transportation alternative to traditional public transit fixed route and dial-a-ride services. The service is a low-to-no-cost scheduled door-to-door transportation service to non-emergency medical appointments for rural Placer County residents. Service operates Monday through Friday, 8:00 a.m. to 5:00 p.m., and Thursdays, 10:00 a.m. to 2:00 p.m. in Sacramento.	Completion by 2020	$416,176	$416,176
PLA25510	Yes	Multiple Counties	Western Placer CTSA	F- Transit O&M (Demand Response)	Western Placer CTSA Operations	The Western Placer CTSA operates non-emergency medical transportation demand-response paratransit service; volunteer door-to-door transportation; & voucher program within western Placer County.	Completion by 2020	$4,900,000	$4,900,000
YST10444	Yes	Multiple Counties	Yuba Sutter Transit	E- Transit Capital (Vehicles)	Fixed Route Fleet Replacement & Minor Fleet Expansion	Purchase 13 heavy-duty, low-floor, clean diesel, local fixed route buses (30' - 35') to replace 11 buses and expand the local fixed route fleet from 22 to 24 buses.	Completion by 2020	$5,525,000	$5,525,000
YST10441	Yes	Multiple Counties	Yuba Sutter Transit	F- Transit O&M (Bus)	JARC Small Urban & Rural Operating Assistance	Operating assistance to provide transit services for low income and transit dependent riders to employment and training outlets. Hours of operation are Monday through Friday, 7:55 am to 3:30 pm; 6:00 pm to 9:30 pm; and Saturdays 8:30 am to 5:30 pm. Services will be extended one weekday to downtown Sacramento and extended one hour on Saturdays. (Small Urban is $303,050, Rural is $12,700.) (This amount includes $150,000 of JARC funds transferred to the 5307 account.) An additional $150,000 in small urban JARC funds were awarded to support the continuation and expansion of existing weekday and evening Dial-A-Ride services.	Completion by 2020	$781,500	$781,500
YST10442	Yes	Multiple Counties	Yuba Sutter Transit	F- Transit O&M (Bus)	Operating Assistance for FY 2015	Yuba-Sutter Transit Operating Assistance for FY 2015	Completion by 2020	$6,600,000	$6,600,000
YST10443	Yes	Multiple Counties	Yuba Sutter Transit	F- Transit O&M (Bus)	Operating Assistance for FY 2016	Yuba-Sutter Transit Operating Assistance for FY 2016	Completion by 2020	$6,930,000	$6,930,000
CAL20497	Yes	Placer	Caltrans D3	G- System Management, Operations, and ITS	Alpine Meadows Road Traffic Signal	Placer County, about 9.3 miles south of Truckee at Alpine Meadows Road - Construct signalized intersection at SR 89 [FCO Only] (Pla-89-12.1/12.5) [SHOPP Minor A 201.310] (Toll Credits for CON)	Completion by 2020	$974,000	$974,000
CAL20538	Yes	Placer	Caltrans D3	G- System Management, Operations, and ITS	Crispin Cider STAA Access	I-80 at Canyon Way IC, Illinoistown OC and driveway entrance to Crispin Cider warehouse - Widen ramp pavement at three locations, modify overcrossing and install signage to accommodate Surface Transportation Assistance Act (STAA) (PM 31.1/31.9) [SHOPP Minor A program 201.310] (Toll credits for CON)	Completion by 2020	$2,020,000	$2,020,000
CAL20511	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	Gold Run SRRA Water System Upgrades	On I-80 in Placer County, near Gold Run, at the Gold Run Safety Roadside Rest Area - Replace water distribution system (PM 41.4/42.2) [EFIS ID 0313000017; CTIPS ID 107-0000-0960] (Toll credits for PE, ROW, CON)	Completion by 2020	$3,061,000	$3,061,000
CAL20424	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	I-80 3-Mile Truck Climbing Lane	Near Colfax on Route 80, from the Long Ravine UP to east of Magra Road OC - Construct eastbound truck climbing lane and related improvements (PM 35.1/38.0) (Toll Credits for PE, ROW, CON) [EFIS ID 0300020420]	Completion by 2020	$50,637,337	$50,637,337
CAL20630	Project Development Only	Placer	Caltrans D3	B- Road & Highway Capacity	I-80 Bus/carpool Lanes East of SR65 in both directions	New bus/carpool lanes - one each direction - on I-80 from SR65 east to SR49 in Auburn.	Completion after 2036	$200,000,000	
CAL20521	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	I-80 Culvert Rehabilitation	In and near Colfax on Pla-80, from 0.3 mile south of Weimar overhead to 0.3 mile south of Illinoistown overcrossing - Rehabilitate culvert (PM 28.5/31.5) [EFIS ID 0300020597; CTIPS ID 107-0000-0959] (Toll Credits for PE, ROW, CON)	Completion by 2020	$1,918,000	$1,918,000
CAL18828	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	I-80 Vertical Clearance Improvements	Placer County, I-80, in and near Loomis at various locations from Brace Road to Magra Road - Improve vertical clearance (PM 8.1/37.8) [CTIPS ID 107-0000-0757; EFIS ID 0300000473] (Toll Credits)	Completion by 2020	$36,045,000	$36,045,000
CAL20633	Project Development Only	Placer	Caltrans D3	B- Road & Highway Capacity	Route 65 Lincoln Bypass Phase 2B	In Placer County, SR65: Right-of-way acquisition & construct a 4-lane expressway from North Ingram Slough to Sheridan.	Completion after 2036	$55,000,000	
CAL20389	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	SR 193 Curve Improvement	Near Lincoln, SR 193, from 0.1 mile west to 0.9 mile east of Clark Tunnel Road - Curve improvements and widening (SHOPP Lump Sum - Collision Reduction) (PM 4.4/5.4) [CTIPS ID 107-0000-0798; EFIS ID 0300000725] (Toll Credits)	Completion by 2020	$17,393,000	$17,393,000
CAL20635	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	SR 193 Pavement Rehabilitation	Rehabilitate SR 193 roadway from Sierra College to Newcastle.	2021-2036	$6,500,000	$10,166,000
CAL20494	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	SR 267 Pavement Rehab	In Placer County, on SR 267 near Truckee, from Nevada County line to Brockway Summit - Pavement overlay (PM 0.0/6.8) [Toll Credits]	Completion by 2020	$5,101,000	$5,101,000
CAL20638	Yes	Placer	Caltrans D3	G- System Management, Operations, and ITS	SR 267 SB Truck Climbing Lane	Extend the existing SR 267 SB truck-climbing lane; shoulder widening from Northstar Dr to Brockway Summit (PM 3.76/PM 6.67)	2021-2036	$15,000,000	$18,304,000
PLA25136	Project Development Only	Placer	Caltrans D3	B- Road & Highway Capacity	SR 267 Widening	In eastern Placer County, widen SR 267 from 2 lanes to 4 lanes from Nevada County line (PM 0.001) to Northstar Drive (PM 3.785).	Completion after 2036	$10,000,000	
CAL20541	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	SR 49 Bridge Rehab	In Auburn, SR 49, from 0.1 mile south of Routes 49/80 separation to 0.1 mile north of Dry Creek Road - Rehabilitate Pavement (PM 3.1/7.5) [CTIPS ID 107-0000-0992] [EFIS ID 0300020616] (Toll Credits for PE, ROW, and CON)	Completion by 2020	$29,400,000	$29,400,000

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CAL20628	Yes	Placer	Caltrans D3	A- Bike & Ped	SR 49 Class II Bike Lane	On SR 49, construct Class II bicycle lane from Bell Rd to Dry Creek Rd.	2021-2036	$480,000	$751,000
CAL20651	Yes	Placer	Caltrans D3	A- Bike & Ped	SR 49 Class II Bike Lane	On SR 49, construct Class II bicycle lane from Lincoln Way to Luther Rd.	2021-2036	$960,000	$1,501,000
CAL20573	Yes	Placer	Caltrans D3	G- System Management, Operations, and ITS	SR 49 Signal Coordination	Install signal at Shale Ridge Rd., coordinate to the north on Dry Creek Rd. and to the south on Bell Rd. (PM 6.38/7.427)	2021-2036	$2,000,000	$2,441,000
CAL20531	Yes	Placer	Caltrans D3	C- Maintenance & Rehabilitation	SR 65 Pavement Rehab	On SR 65, in and near Roseville, from I-80 to Twelve Bridges Drive - Pavement rehabilitation (PM 4.8/12.5) [EFIS ID 0314000010; CTIPS ID 107-0000-0991] (Toll Credits for PE, ROW, CON)	Completion by 2020	$10,445,000	$10,445,000
CAL20583	Project Development Only	Placer	Caltrans D3	G- System Management, Operations, and ITS	SR89 UPRR Undercrossing	Widening of SR89 (mousehole) under UPRR tracks	Completion after 2036	$42,000,000	
CAL20637	Project Development Only	Placer	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on SR49	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Placer County.	Completion after 2036	$4,000,000	
CAL20639	Project Development Only	Placer	Caltrans Division of Rail	E- Transit Capital (Major)	Auburn to Donner Summit Track Improvements Phases 1 & 2	Upgrade Donner Pass Summit (UP Line) double track: including addition of crossovers, notching of tunnels, reactivation & replacement of second mainline track between Auburn & Reno, Nevada	Completion after 2036	$86,000,000	
CAL20640	Project Development Only	Placer	Caltrans Division of Rail	E- Transit Capital (Major)	UP Over/Under Crossing	Build over/undercrossing at Union Pacific crossing of Sierra College Boulevard	Completion after 2036	$30,000,000	
CAL20563	Yes	Placer	Caltrans HQ	F- Transit O&M (General)	FTA 5310 - City of Roseville Mobility Management Program	Transit Ambassador and Mobility Training programs. Assist new transit and paratransit/demand response transportation riders that are seniors and persons with disabilities in Placer County, as well as the South Placer County "One Stop" Call Center that distributes transit and paratransit/demand response transportation information and handles reservations/transfers for paratransit/demand response transportation users in Placer County. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$234,000	$234,000
CAL20565	Yes	Placer	Caltrans HQ	E- Transit Capital (Minor)	FTA 5310 - City of Roseville South Placer Call Center Equipment	Purchase training equipment (a laptop and LCD projector) for Call Center employees and Transit Ambassadors to use, as well as replacement digital recording system and TDD equipment for the South Placer Call Center. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$28,100	$28,100
CAL20564	Yes	Placer	Caltrans HQ	E- Transit Capital (Minor)	FTA 5310 - City of Roseville Transit Vehicle Navigation Units	Purchase 25 global positioning system (GPS) navigation units to assist demand response drivers serving seniors and people with disabilities. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.	Completion by 2020	$6,900	$6,900
VAR56134	Project Development Only	Placer	Capitol Corridor Joint Powers Authority	F- Transit O&M (Rail)	Capitol Corridor Operations & Maintenance	Capitol Corridor operations & equipment maintenance, funded by the State of California/ Caltrans Division of Rail. (Total Cost: $728,000,000)	Completion after 2036	$58,181,760	
VAR56135	Project Development Only	Placer	Capitol Corridor Joint Powers Authority	E- Transit Capital (Minor)	Capitol Corridor Rail Replacement & Expansion	Lump-sum of capital improvements between Colfax & Davis (Total Cost: $120,720,000)	Completion after 2036	$9,647,942	
PLA25353	Yes	Placer	City of Auburn	E- Transit Capital (Minor)	Auburn Multi Modal Station - Rail Platform Extension	At the existing Auburn Multi Modal Station: Obtain right-of-way and install rail platform extension . (Emission Benefits in kg/day: 0.93 ROG, 1.18 NOx, 0.43 PM10)	Completion by 2020	$1,416,480	$1,416,480
PLA25569	Yes	Placer	City of Auburn	E- Transit Capital (Vehicles)	Auburn Transit Bus Replacement	Replace one bus.	Completion by 2020	$408,469	$408,469
PLA25234	Project Development Only	Placer	City of Auburn	B- Road & Highway Capacity	Baltimore Ravine Development	Construct New Road: various roadways in the Baltimore Ravine area of Auburn. Includes: widening and construction of new local roadways as a result of new development.	Completion after 2036	$200,000	
PLA25547	Yes	Placer	City of Auburn	F- Transit O&M (Bus)	City of Auburn Non-Urbanized Transit Operations	For the ongoing operation of transit within the non-urbanized area of Auburn and a portion of non-urbanized Placer County.	Completion by 2020	$1,584,934	$1,584,934
PLA25639	Yes	Placer	City of Auburn	A- Bike & Ped	Marguerite Mine Road Pedestrian and Bikeway Facilities	Marguerite Mine Road, from Marguerite Mine Road/State Route 49 intersection to the north and Marguerite Mine Road/Auburn Ravine Road intersection, approximately 2,200 feet: install curb, gutter sidewalk on west side segments and install Class II Bike Lane for the entire length. (Toll Credits for CON). Toll Credits for CON	Completion by 2020	$448,710	$448,710
PLA25471	Yes	Placer	City of Auburn	A- Bike & Ped	Nevada Street Pedestrian & Bicycle Facilities	Class 2 bike lane and adjacent sidewalks along Nevada St from Placer St to Fulweiler Ave to allow for continuous pedestrian and bicycle access from Old Town Auburn to the Auburn Station and EV Cain Middle School. (Emission reductions in kg/day: ROG 0.01, NOx 0.01.)	Completion by 2020	$1,700,645	$1,700,645
PLA25146	Project Development Only	Placer	City of Colfax	G- System Management, Operations, and ITS	Grass Valley St./UPRR Overcrossing	Rail Crossing Project; above-grade crossing of UP Tracks from east side (S Auburn)to west side (Main)	Completion after 2036	$300,000	
PLA25439	Yes	Placer	City of Colfax	C- Maintenance & Rehabilitation	Grass Valley Street Railroad Crossing Pedestrian and Bike Improvements	Construct of pedestrian improvements across UP railroad tracks to improve pedestrian safety, road rehabilitation, and bike lane/route along Grass Valley St west of South Auburn St.	Completion by 2020	$537,100	$537,100
PLA20420	Project Development Only	Placer	City of Colfax	G- System Management, Operations, and ITS	I-80/Canyon Wy. Intersection Improvements	Intersection Improvements at Canyon Wy. / I-80 Overpass, to include signalization, intersection realignment and striping.	Completion after 2036	$50,000	
PLA25591	Yes	Placer	City of Colfax	G- System Management, Operations, and ITS	I-80/SR174 Interchange Improvements (Construction funds)	Reconstruct I-80/SR 174 Interchange	2021-2036	$15,000,000	$23,459,000
PLA25490	Project Development Only	Placer	City of Colfax	G- System Management, Operations, and ITS	I-80/SR174 Road Widening and Signal Improvements	Roadway Operational Improvements at Hwy. 174 & I-80, to include 2 new signals and intersection widening with sidewalks and curb ramps	Completion after 2036	$100,000	
PLA25466	Project Development Only	Placer	City of Colfax	G- System Management, Operations, and ITS	Main and Grass Valley Signal Improvements	Design and construction of a new traffic signal and turn-lane at the intersection of Main Street and Grass Valley Street. (Emission reductions: ROG .02 kg/day; NOx .01 kg/day)	Completion after 2036	$200,000	
PLA25577	Yes	Placer	City of Colfax	A- Bike & Ped	North Main Street Bike Route	Along N. Main Street, from the Depot Transit Center to Highway 174: Construct class III bike route and associated improvements. Improvements include tree trimming, road repairs, non-capacity road widening, re-striping, drain inlet upgrade, bike rack, and barrier curb. (Requesting state-only ATP.)	Completion by 2020	$299,333	$299,333
PLA25237	Project Development Only	Placer	City of Colfax	A- Bike & Ped	S Auburn Street Bicycle Improvements	Add bike routes lanes on both sides of South Auburn Street from Mink Creek to Grass Valley UP Tracks.	Completion after 2036	$36,000	
PLA25235	Project Development Only	Placer	City of Colfax	G- System Management, Operations, and ITS	S. Auburn/Central/Hwy.174 Intersection Improvements	Intersection improvements on S. Auburn St. at Central Ave./Hwy. 174 intersection, to include widening, signalization, and pedestrian improvements.	Completion after 2036	$60,000	
PLA25161	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	12th St.	Widen: 4 lanes from East Ave. to Harrison Ave.	Completion by 2020	$48,700	$51,000
PLA20740	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Airport Rd.	Construct New Road: 2 lanes from Weco Access Rd. to Wise Rd.	Completion after 2036	$550,000	
PLA25022	Yes	Placer	City of Lincoln	A- Bike & Ped	Auburn Ravine Bike/Ped Bridge Phase 1	In Lincoln: Construction of multi-use bridge across Auburn Ravine: Preliminary Engineering, Environmental Documentation, Permitting, and Construction of bicycle and pedestrian bridge crossing Auburn Ravine.	Completion by 2020	$987,193	$1,035,000
PLA18650	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Aviation Blvd.	Widen Aviation Blvd. from 2 to 4 lanes from Venture Dr. to terminus 0.5 miles north of Venture Dr.	Completion after 2036	$850,000	
PLA25304	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Aviation Blvd.	Road Extension: 4 lanes from Venture Dr. to Wise Rd.	Completion after 2036	$1,500,000	
PLA18760	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	E. Joiner Pkwy.	Widen: 6 lanes from Ferrari Ranch Rd. to Sterling Pkwy. Includes: Hwy. 65 / UPRR overcrossing.	Completion after 2036	$700,000	
PLA25515	Yes	Placer	City of Lincoln	A- Bike & Ped	East Ave. and East Joiner Pkwy. Sidewalks (SRTS)	East side East Ave. between SR 93 (McBean Park Dr.) and 12th St.; east side E. Joiner Pkwy. between 12 Bridges Dr. and Westview Dr.: Construct sidewalk, curb and gutter, curb ramps; install bike lanes. SRTS3-03-005	Completion by 2020	$519,600	$519,600

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Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PLA18810	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	East Joiner Parkway	Widen East Joiner Parkway from 2 to 4 lanes from Twelve Bridges Dr. to Rocklin city limits.	Completion after 2036	$290,000	
PLA18790	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	East Joiner Parkway	Widen East Joiner Parkway from 2 to 4 lanes from Del Webb Blvd. to Twelve Bridges.	Completion by 2020	$1,104,290	$1,158,000
PLA25169	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Ferrari Ranch Road	Widen from 2 to 4 lanes from SR 65 to SR 193 STREET NAME: Ferrari Ranch Road	Completion after 2036	$275,000	
PLA25467	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Ferrari Ranch Road Extension	Extend Ferrari Ranch Road from existing City Limit near Caledon Circle to Moore Road (Village 7 boundary).	Completion after 2036	$1,920,000	
PLA20780	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Gladding Parkway	In Lincoln: from Nicolaus Rd.(near K Street)to East Avenue; including overpass over UPRR and SR 65 and connection to 12th Street, construct a new 2 lane roadway.	Completion after 2036	$2,300,000	
PLA18710	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Industrial Blvd.	Industrial Blvd., from Route 65 to 12 Bridges Dr.: Widen from 2 to 4 lanes.	Completion after 2036	$948,000	
PLA18720	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Industrial Blvd.	Industrial Blvd., from 12 Bridges Dr. to Athens Blvd.: Widen from 2 to 4 lanes.	Completion after 2036	$1,876,246	
PLA25164	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Joiner Pkwy.	Widen: 6 lanes from Nicolaus Rd. to Ferrari Ranch Rd.	Completion after 2036	$344,000	
PLA25531	Yes	Placer	City of Lincoln	G- System Management, Operations, and ITS	Lincoln Blvd. Signal Upgrade and Lighting	Lincoln Blvd. (Old 65) between Sterling Pkwy. and 7th St.: Upgrade traffic signals; install safety lighting and bike lanes. (HSIP5-03-006)	Completion by 2020	$1,080,000	$1,080,000
PLA25464	Yes	Placer	City of Lincoln	A- Bike & Ped	Lincoln Blvd. Streetscape - Phase 1	In Lincoln: Between 7th Street and McBean Park Drive; construct various pedestrian, bicycle, NEV, and ITS improvements along Lincoln Boulevard (old Highway 65 / G Street). Improvements will consist of gap sidewalk construction, pedestrian improvements to railroad crossings, pedestrian crossings along Lincoln Boulevard, bicycle and NEV lanes, connection to the existing trail along Auburn Ravine east of Highway 65, roadway narrowing through the construction of landscape medians and frontage improvements where appropriate, and traffic signal interconnection and coordination along the corridor. (Emission Benefits in kg/day: ROG 0.58, NOx 0.41, PM10 0.08)	Completion by 2020	$3,278,812	$3,278,812
PLA25554	Yes	Placer	City of Lincoln	A- Bike & Ped	Lincoln Blvd. Streetscape - Phase 2	Lincoln Blvd, First Street to McBean Park Drive: Provide a more pedestrian, bicycle and Neighborhood Electric Vehicle (NEV) friendly environment along the main street through the city. Pedestrian improvements include wider sidewalks, bulb-outs at intersections and crosswalks. Bicycle and NEV improvements include Class 2 lanes on each side of the street. (Emission Benefits in kg/day: ROG 0.16, NOx 0.11, PM10 0.06) (Toll Credits for PE and CON)	Completion by 2020	$1,019,639	$1,019,639
PLA25540	Yes	Placer	City of Lincoln	C- Maintenance & Rehabilitation	McBean Park Bridge Rehabilitation	McBean Park Dr. over Auburn Ravine, east of East Ave.: Rehabilitate existing 2 lane bridge. No added lane capacity.	Completion by 2020	$8,083,000	$8,083,000
	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	McBean Drive Widening - Phase 1	Widen McBean Drive to four lanes from Ferrari Ranch to Oak Tree Lane	2021-2036	$7,047,977	$8,600,000
	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	McBean Drive Widening - Phase 2	Widen McBean Drive from Oak Tree Lane to N/S Connector Loop	2021-2036	$5,971,878	$7,287,000
PLA25162	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	McCourtney Rd.	Widen: 4 lanes from 12th St. to north Lincoln city limits.	Completion after 2036	$48,800	
PLA25595	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	Nelson Lane Extension	Extend Nelson Lane south of SR-65 Bypass	2021-2036	$25,000,000	$39,098,000
PLA25509	Yes	Placer	City of Lincoln	B- Road & Highway Capacity	Nelson Ln/Markham Ravine Bridge Replacement	Nelson Ln, over Markham Ravine, 0.25 mi south of Nicolaus Rd. Replace existing functionally obsolete 2 lane bridge with a new 4 lane bridge.	Completion by 2020	$8,212,828	$8,212,828
PLA15970	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Nicolaus Rd.	Widen Nicolaus Rd. from 2 to 4 lanes from Airport Rd. to Aviation Blvd.	Completion after 2036	$2,250,600	
PLA25305	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Oak Tree Extension	Construct New Road: 2 lanes between Sierra College Blvd. and Wise Rd. / Hwy. 65	Completion after 2036	$1,500,000	
PLA19020	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Twelve Bridges Dr.	Twelve Bridges Dr.from Industrial Blvd. to SR 65 Interchange: widen from 2 to 4 lanes, including interchange improvements.	Completion after 2036	$2,817,000	
PLA25166	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Twelve Bridges Dr.	Widen: 6 lanes from Hwy. 65 Interchange to Lincoln Pkwy. Includes: interchange improvements.	Completion after 2036	$225,200	
PLA25553	Yes	Placer	City of Lincoln	C- Maintenance & Rehabilitation	Twelve Bridges Drive & Joiner Parkway rehabilitation	In Lincoln, street rehabilitation of (1) Twelve Bridges Drive from Industrial Avenue east to Sierra College Boulevard and (2) Joiner Parkway from the southern city limits to First Street. (Toll Credits for CON)	Completion by 2020	$1,332,655	$1,332,655
PLA20760	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Venture Drive	In Lincoln: from Aviation Blvd. to Lakeside Dr., widen Venture Dr. from 2 to 4 lanes.	Completion after 2036	$90,000	
PLA25315	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Village 1-7, SUD A-C local streets	Construct New Road: Local roads for various villages and SUD. Includes: street enhancements.	Completion after 2036	$11,800,000	
PLA25163	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Virginiatown Rd.	Widen: 4 lanes from McCourtney Rd. to east Lincoln city limits.	Completion after 2036	$50,200	
PLA25310	Project Development Only	Placer	City of Lincoln	B- Road & Highway Capacity	Wise Rd.	Road Realignment: between Hwy. 65 Lincoln Bypass and existing Hwy. 65. Includes: overcrossing.	Completion after 2036	$6,000,000	
PLA25566	Yes	Placer	City of Rocklin	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance Program	Bridge Preventive Maintenance Program, various locations in City of Rocklin. See Caltrans Local Assistance HBP web site for backup list of bridges.	Completion by 2020	$600,000	$600,000
PLA19260	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Dominguez Road	In Rocklin, Dominguez Road: extend with 2 lanes from Granite Drive to Sierra College Boulevard, including new bridge over I-80.	2021-2036	$11,000,000	$17,203,000
PLA25635	Yes	Placer	City of Rocklin	G- System Management, Operations, and ITS	Granite Drive at Rocklin Road Roundabout	At Rocklin Rd/Granite Dr., between east of Meyers St to the Caltrans WB on-ramp/right of way on Rocklin Road. : Replace the existing four lane signalized intersection with a two lane roundabout (Toll Credits for PE, ROW, CON).. Toll Credits for ENG, ROW, CON	Completion by 2020	$2,707,607	$2,707,607
PLA25373	Project Development Only	Placer	City of Rocklin	E- Transit Capital (Minor)	Midas Ave. Grade Separation	Midas Ave., from Pacific St. to Third St., construct 2 lane grade separation of UP tracks including right of way.	Completion after 2036	$5,650,000	
PLA25272	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Pacific St.	Widen: 6 lanes from SW of Sunset Blvd. to NE of Sunset Blvd.	Completion after 2036	$240,000	
PLA17820	Yes	Placer	City of Rocklin	G- System Management, Operations, and ITS	Pacific Street	On Pacific Street: Construct downtown improvements.	Completion by 2020	$8,000,000	$8,391,000
PLA25552	Yes	Placer	City of Rocklin	A- Bike & Ped	Pacific Street-Bikeway/Neighborhood Electric Vehicle Expansion Project	Construct & add striped median ,striping, pavement markings and signage on both NB and SB lanes of Pacific Street. The project will also construct a Class II bike path on the northwest portion of Pacific Street from Town of Loomis border to Del Mar Ave.(Emission Benefits in kg/day: ROG 0.16; NOx 0.13; PM10 0.08)	Completion by 2020	$1,698,542	$1,698,542
PLA19400	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Rocklin Rd. Widening	In Rocklin, Rocklin Road: widen to 6 lanes from Granite Drive to westbound I-80 ramps.	Completion by 2020	$1,320,000	$1,320,000
PLA19401	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Rocklin Road	In Rocklin, Rocklin Road from Aguilar Road / Eastbound I-80 on-ramps to Sierra College Blvd: widen from 4 to 6 lanes.	Completion after 2036	$1,534,000	
PLA25273	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Rocklin Road Widening	Widen Rocklin Road from 2 to 4 lanes from Loomis town limits to east of Sierra College Boulevard.	Completion after 2036	$372,266	
PLA25345	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Rocklin Road/I-80 Interchange	In Rocklin: from Rocklin Rd. onto both WB and EB I-80; construct roundabouts at ramp EB/WB ramp terminus.	Completion by 2020	$26,150,000	$26,150,000
PLA15400	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Sierra College Blvd. Widening	In Rocklin, widen Sierra College Boulevard from 4 to 5 lanes from I-80 to Aguliar Tributary.	2021-2036	$3,800,000	$4,637,000
PLA20460	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Sierra College Blvd. Widening	In Rocklin, Sierra College Boulevard from Aguilar Tributary to Nightwatch: widen from 4 to 5 lanes.	2021-2036	$2,750,000	$3,356,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PLA19330	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Sierra College Boulevard	In Rocklin, Sierra College Boulevard: widen to 4 lanes from intersection with Valley View Parkway to Loomis Town limits (SPRTA Segment #2a).	Completion after 2036	$8,650,000	
PLA25551	Yes	Placer	City of Rocklin	C- Maintenance & Rehabilitation	Sunset Blvd Reconstruction	Reconstuct Sunset Blvd from Fairway Drive to Stanford Ranch Road. (Toll credits for CON.)	Completion by 2020	$876,500	$876,500
PLA25156	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Sunset Blvd. Widening	Sunset Boulevard: Widen from 4 to 6 lanes from north bound SR 65 ramp to West Stanford Ranch Road.	2021-2036	$1,100,000	$1,342,000
PLA15620	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Sunset Boulevard	Widen Sunset Boulevard from 4 to 6 lanes, from Standford Ranch Road to Pacific Street	Completion after 2036	$4,177,406	
PLA17910	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Sunset Boulevard	Widen Sunset Boulevard bridge at UPRR from 4 to 6 lanes from South Whitney Blvd. to Pacific St.	2021-2036	$2,600,000	$4,066,000
PLA19360	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Sunset Boulevard	Widen Sunset Boulevard from 4 to 6 lanes from Stanford Ranch Rd. to Topaz.	2021-2036	$2,600,000	$4,066,000
PLA25268	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	University Avenue Phase 1	University Avenue: Construct new four lane roadway from the intersection of Whitney Ranch Parkway north to the extension of West Ranch View Drive. One or more phases of this project may require federal permitting.	Completion by 2020	$2,500,000	$2,500,000
PLA19250	Project Development Only	Placer	City of Rocklin	B- Road & Highway Capacity	Valley View Parkway	Valley View Parkway: Construct 2 lanes from Park Drive to Sierra College Blvd.	Completion after 2036	$9,575,000	
PLA25151	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	West Oaks Boulevard	West Oaks Boulevard: Construct new 4-lane extension from terminus to 4-lane portion to Whitney Ranch Parkway.	2021-2036	$3,500,000	$4,271,000
PLA19290	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Whitney Ranch Parkway	Whitney Ranch Parkway, construct new 4-lane facility from east of Wildcat Blvd. to Whitney Oaks Dr.	2021-2036	$12,428,000	$15,166,000
PLA25025	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Whitney Ranch Parkway	In Rocklin, Whitney Ranch Parkway: construct four-lane facility from SR 65 to east of Wildcat Boulevard.	Completion by 2020	$1,730,000	$1,730,000
PLA25521	Yes	Placer	City of Rocklin	B- Road & Highway Capacity	Whitney Ranch Parkway Interchange Phase 1A	At SR 65 and Whitney Ranch Parkway: Construct Phase 1A of the Whitney Ranch Interchange by constructing NB on- and off-ramps, overcrossing structure, and southbound loop on-ramp.	Completion by 2020	$3,800,000	$3,800,000
PLA25578	Yes	Placer	City of Roseville	C- Maintenance & Rehabilitation	2015 RSTP Arterial Microsurfacing Project	In Roseville, resurface the following arterial roadways - Pleasant Grove Blvd from Hartley Wy to Fiddyment Rd & from Michner Dr to Foothills Blvd; Fiddyment Rd from Pleasant Grove Blvd to Blue Oaks Blvd; Foothills Blvd from Pleasant Grove Blvd to Junction Blvd & from Baseline Rd to Atkinson St; Galilee Rd from Industrial Ave to Pleasant Grove Blvd; Vineyard Rd from Brady Ln to Atkinson St; Denio Loop from Foothills Blvd to Atkinson St; E Roseville Parkway from Douglas Blvd to Sierra College Blvd; Atlantic St from Wills Rd to I-80 WB On Ramp; Eureka Rd from Sunrise Ave to Douglas Blvd; Sunrise Ave from Smith Ln to Kensington Dr; N. Sunrise Ave from Frances Dr to Lead Hill Blvd; Sierra Gardens Dr from Santa Clara Dr to Douglas Blvd; Santa Clara Dr from Sierra gardens Dr to Douglas Blvd; and Douglas Blvd from N. Sunrise Ave to Sierra Gardens. (Toll credits for CON.)	Completion by 2020	$6,374,233	$6,374,233
PLA25581	Yes	Placer	City of Roseville	A- Bike & Ped	2017 Pedestrian Facilities Improvement	In Roseville, upgrade ADA pedestrian ramps along various arterial and collector roadways for safety and to meet current ADA standards. (Emission Benefits in kg/day: 0.10 ROG; 0.06 NOx; 0.02 PM2.5)	Completion by 2020	$815,925	$815,925
PLA19810	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Atkinson St./PFE Rd. Widening	In Roseville, Atkinson St./PFE Rd.: widen from two to four lanes from Foothills Blvd to just south of Dry Creek, including connector road from Foothills to Atkinson (mirror image of existing Denio Loop connector on N/E side of Foothills) and signal removal.	Completion after 2036	$7,000,000	
PLA15660	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Baseline Rd. Widening	In Roseville, Baseline Rd., from Brady Lane to Fiddyment Road: widen from 3 to 4 lanes.	Completion by 2020	$6,106,889	$6,106,889
PLA15100	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Baseline Road	In Roseville, Baseline Road from Fiddyment Road to Sierra Vista Western edge west of Watt Avenue: widen from 2 to 6 lanes.	Completion by 2020	$7,852,055	$7,852,055
PLA25528	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Blue Oaks Blvd Extension - Phase 1	In Roseville, Extend 2 lanes of Blue Oaks Blvd from Hayden Parkway to Westside Dr., Including south half of a 6-lane bridge over Kaseberg Creek.	Completion by 2020	$6,000,000	$6,000,000
PLA25539	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Blue Oaks Blvd. Extension Phase 2	In Roseville, Blue Oaks Blvd., from Westbrook Dr. to Santucci Blvd. (formerly Watt Ave.), extend 2 lanes.	Completion by 2020	$6,350,000	$6,350,000
PLA25465	Yes	Placer	City of Roseville	A- Bike & Ped	Downtown Pedestrian Bridge	In Roseville, improve access to Civic Center transit transfer facility by constructing transit/bicycle/pedestrian related improvements, including pedestrian bridge and Class I trail improvements. (Emission benefits in kg/day: ROG 0.55, NOx 0.34, PM2.5 0.11)	Completion by 2020	$3,217,000	$3,217,000
PLA25318	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Dry Creek	Bikeway Facilities: from Darling Wy. to western Roseville City limits along Dry Creek.	Completion after 2036	$550,000	
PLA19910	Yes	Placer	City of Roseville	A- Bike & Ped	Dry Creek Greenway Trail	In Roseville, along Dry Creek, Cirby Creek and Linda Creek, construct class 1 bike trail. (Emission Benefits in kg/day: 0.09 ROG, 0.07 NOx, 0.03 PM2.5)	Completion by 2020	$3,268,629	$3,268,629
PLA25496	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Foothills Boulevard	Widen: 6 lanes from Cirby to Vineyard and from Switchman to Pilgrims.	Completion after 2036	$2,390,000	
PLA15740	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Galleria Blvd.	Widen: 6 lanes from Berry to Roseville Pkwy.	Completion after 2036	$150,000	
PLA25211	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Galleria Blvd.	Interchange Modification: Hwy. 65 / Galleria Blvd. Interchange. Includes: re-stripe Galleria/ Stanford Ranch to 6 lanes; modify 3 NB & SB off ramps and SB Stanford Ranch Rd. to NB 65 on ramp; add 2nd N/B Galleria to NB Hwy. 65 left-turn lane (Phase II).	Completion after 2036	$400,000	
PLA25209	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Galleria Blvd./SR 65 Interchange Phase II Improvements	In Roseville, at existing interchange on State Route 65/Galleria Blvd/Stanford Ranch Rd.: modify all on and off ramps to provide improved operations.	Completion after 2036	$5,000,000	
PLA25386	Yes	Placer	City of Roseville	A- Bike & Ped	I-80 To Royer Park Bikeway Phase 2 - Segment 3	Roseville, Harding Blvd @ Dry Creek, I-80 to Royer Park: Construct class 1 bikeway in 2 phases. Phase 1 from I-80 to Harding Blvd completed in 2004 (PLA20870). Phase 2 construction is separated into 3 segments: Segment 3 is located from Folsom Road to Lincoln Street/Royer Park. (Emission benefits in kg/day: 0.25 ROG, 0.2 NOx 0.09 PM10)	Completion by 2020	$870,909	$870,909
PLA25507	Yes	Placer	City of Roseville	C- Maintenance & Rehabilitation	Industrial Ave/Pleasant Grove Creek Bridge Replacement	Industrial Ave, over Pleasant Grove Creek, 0.7 mi S Placer Blvd. Replace the existing 2 lane functionally obsolete bridge with a new 2 lane bridge.	Completion by 2020	$4,960,000	$4,960,000
REG17928	Yes	Placer	City of Roseville	E- Transit Capital (Minor)	Louis/Orlando Transfer Point Improvements	In Roseville, on Louis Blvd at Orlando Ave.: Develop and construct an improved transfer point and intermodal facility with a 35-space park and ride facility. (Includes previously programmed PLA16080.)	Completion by 2020	$4,738,000	$4,738,000
PLA25377	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Market St.	City of Roseville, Market St., from approx. 800 feet north of Baseline Road to Pleasant Grove: Extend 2 lanes.	Completion by 2020	$8,500,000	$8,500,000
PLA25571	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Market Street South	In Roseville, Market Street South, from Baseline Road to approx. 800 feet north: construct 2-lane road.	Completion by 2020	$500,000	$500,000
PLA25508	Yes	Placer	City of Roseville	C- Maintenance & Rehabilitation	Oak Ridge Dr/Linda Creek Bridge Replacement	Oak Ridge Dr, over Linda Creek, 0.2 mi N Cirby Way. Replace the existing functionally obsolete 2 lane bridge with a new 2 lane bridge. 11/8/2010: (Toll Credits programmed for PE, ROW, and & CON.)	Completion by 2020	$3,250,000	$3,250,000
PLA25469	Yes	Placer	City of Roseville	A- Bike & Ped	Oak Street Extension of Miners Ravine Trail	In Roseville, Miners Ravine Trail, from Lincoln Street to Royer Park along the Dry Creek corridor: Extend class 1 trail, including relocation and safety upgrades to existing Ice House Bridge. From transit stop at Downtown Roseville Library to existing class 1 trail in Royer Park: provide bicycle and pedestrian improvements including replacement of Taylor Street Bridge. (Emission benefits in kg/day: ROG 0.13, NOx 0.09, PM10 0.04) (FTA 5307 to be used on Taylor Street bridge and bike/ped improvements leading to transit stop at library.)	Completion by 2020	$3,046,159	$3,046,159
PLA25500	Yes	Placer	City of Roseville	A- Bike & Ped	Pedestrian Facilities Improvement Project	In Roseville, reconstruct ADA pedestrian ramps along various arterial and collector roadways to current ADA standards. (Emission Benefits in kg/day: 0.10 ROG, 0.06 NOx, 0.02 PM2.5) (Toll Credits for CON)	Completion by 2020	$562,525	$562,525
PLA25337	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Placer Parkway Phase 2	Construct New Road: 4 lane divided Hwy. between Foothills Boulevard and Fiddyment Road. Includes signalized intersections at Fiddyment Rd.	2021-2036	$14,500,000	$22,677,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PLA25489	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Pleasant Grove Blvd.	Extend 4-lanes from 1500 feet west of market to Santucci (Watt)	Completion after 2036	$1,045,000	
PLA25527	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Pleasant Grove Blvd. Extension	In Roseville, extend 4 lanes of Pleasant Grove from 1500 feet west of Market St to Santucci Blvd (Watt Ave).	Completion by 2020	$5,300,000	$5,300,000
PLA15760	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Pleasant Grove Blvd. Widening	In Roseville, from Foothills Blvd to Wood Creek Oaks, widen Pleasant Grove Blvd from 4 to 6 lanes.	2021-2036	$4,200,000	$5,125,000
PLA25572	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Roseville Bridge Preventive Maintenance Program	Bridge Preventive Maintenance Program (BPMP) for various bridges in the City of Roseville. See Caltrans Local Assistance HBP website for backup list of projects.	Completion by 2020	$817,000	$817,000
PLA25545	Yes	Placer	City of Roseville	G- System Management, Operations, and ITS	Roseville CMS Installation Project - Pleasant Grove Blvd.	In Roseville, install Changeable Message Sign (CMS) on SW/B Pleasant Grove Blvd. approaching Roseville Pkwy. to reduce traffic congestion by improving traffic information dissemination per the ITS Master Plan. (Qualitative emission benefits on file.)	Completion by 2020	$200,000	$200,000
PLA25534	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Roseville Rd. Realignment	Roseville Rd. from Cirby Way to the city limits: Realign roadway. (HSIP5-03-017)	Completion by 2020	$3,539,500	$3,539,500
PLA15850	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Roseville Road Widening	Widen Roseville Rd. from 2 to 4 lanes Between Cirby Way and southern city limit.	Completion by 2020	$2,500,000	$2,500,000
PLA25214	Yes	Placer	City of Roseville	E- Transit Capital (Minor)	Roseville Transit ITS Project	To purchase and install electronic fareboxes, software, probes, software, automatic vehicle location devices, mobile data computers, video security cameras and software, and digital readerboard equipment for transfer points. [Project replaces PCT10430 and PCT10420]	Completion by 2020	$1,100,000	$1,100,000
PLA25498	Yes	Placer	City of Roseville	F- Transit O&M (Demand Response)	Roseville Transit Preventive Maintenance and ADA Operations 2011-2016	Maintenance of transit fleet and operating ADA transit services.2013 Preventive Maintenance = $0; 2013 ADA Operations = $260,000;2014 Operating Assistance = $1,322,938; 2014 ADA Operations = $20,6952015 Preventive Maintenance = $200,000;2016 Preventive Maintenance = $200,000;	Completion by 2020	$5,036,745	$5,036,745
PLA25378	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Santucci Blvd. Extension	City of Roseville, Santucci Blvd. (North Watt Ave.): Extend four lanes from Vista Grande Blvd.to Blue Oaks Boulevard.	Completion by 2020	$6,500,000	$6,500,000
PLA25570	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Santucci Boulevard South	In Roseville, Santucci Boulevard South (Watt Ave.) from Baseline Road north to Vista Grande Boulevard: Construct 4-lane road.	Completion by 2020	$1,000,000	$1,000,000
PLA15600	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Sierra College Blvd Widening	Sierra College Blvd from Sacramento County line to Olympus Dr.: widen to 6 lanes.	Completion after 2036	$1,661,100	
PLA25323	Yes	Placer	City of Roseville	E- Transit Capital (Minor)	Sierra Gardens Transfer Point	Improve Sierra Gardens Transfer Point. Improvements may include new bus turnouts, shelters, restrooms, landscaping, lighting, crosswalks, sidewalks, and other pedestrian improvements such as bulb-outs. (Emission benefits in kg/day: 63 ROG, 63 Nox, 25 PM10.)	Completion by 2020	$1,012,151	$1,012,151
PLA25416	Yes	Placer	City of Roseville	F- Transit O&M (Demand Response)	South Placer Call Center	Operating cost contribution towards ADA complementary paratransit services provided for the South Placer Call Center.	Completion by 2020	$187,500	$187,500
PLA25516	Yes	Placer	City of Roseville	D- Programs & Planning	SRTS Toolkit Expansion	Multiple Schools in the Roseville City School District: Expand Safe Routes to School (SRTS) toolkit. SRTS3-03-006	Completion by 2020	$295,000	$295,000
PLA15911	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Taylor Rd.	In Roseville; from just N/O E. Roseville Parkway to City Limits, widen Taylor Rd. from 2 to 4 lanes.	2021-2036	$5,042,390	$6,153,000
PLA25538	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Vista Grande Arterial	In Roseville, from Fiddyment Rd west to Westbrook Blvd, construct new 4-lane arterial.	Completion by 2020	$2,500,000	$2,500,000
PLA25501	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Washington Blvd/Andora Undercrossing Improvement Project	In Roseville, widen Washington Blvd from 2 to 4 lanes, including widening the Andora Underpass under the UPRR tracks, between Sawtell Rd and just south of Pleasant Grove Blvd. and construct bicycle and pedestrian improvements adjacent to roadway. (CMAQ funds are for bicycle and pedestrian improvements only. Emission Benefits in kg/day: 0.9 ROG, 0.51 NOx, 0.16 PM10)	Completion by 2020	$16,091,643	$16,091,643
PLA25582	Yes	Placer	City of Roseville	A- Bike & Ped	Washington Boulevard Improvement	In Roseville, along Washington Boulevard from Kaseburg Drive to Pleasant Grove Boulevard, construct new concrete sidewalks, Class I & Class II bike facilities. Proposed facilities cross under the Union Pacific tracks (aka "Andora Underpass"). (Emission Benefits in kg/day: 0.24 ROG; 0.16 NOx; 0.05 PM2.5).	Completion by 2020	$1,242,517	$1,242,517
PLA25483	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Westbrook Blvd.	Construct New Road: west of Fiddyment Road between Baseline and Pleasant Grove in proposed new Sierra Vista Specific Plan.	Completion after 2036	$7,500,000	
PLA25481	Yes	Placer	City of Roseville	B- Road & Highway Capacity	Westbrook Blvd.	Construct New Road: west of Fiddyment and north of Blue Oaks in proposed new Creekview Specific Plan.	Completion by 2020	$6,000,000	$6,293,000
PLA19470	Project Development Only	Placer	City of Roseville	B- Road & Highway Capacity	Woodcreek Oaks	Widen from 2 - 4 lanes from Canavari Dr to North Branch of Pleasant Grove Creek.	Completion after 2036	$3,500,000	
PLA25626	Yes	Placer	PCTPA	G- System Management, Operations, and ITS	At-Grade Railroad Crossings	At-Grade Railroad Crossings, including quiet zones throughout County	2021-2036	$500,000,000	$781,967,000
PLA25588	Yes	Placer	PCTPA	A- Bike & Ped	Bicycle Facilities	Construct various bicycle facilities according to implement the Regional Bicycle Master Plan and Local Bicycle Master Plans as amended.	Lump Sum or Ongoing	$40,000,000	$52,565,000
PLA25632	Yes	Placer	PCTPA	E- Transit Capital (Vehicles)	Bus Replacement	Lump-sum for bus vehicles for fiscal years 2019-2036; does not account for expansion of service. Placer County operators only.	Lump Sum or Ongoing	$63,153,000	$82,991,000
PLA25587	Yes	Placer	PCTPA	A- Bike & Ped	Complete Street & Safe Routes to School Improvements	Enhance pedestrian/bicycle and landscaping along approximately 40 miles of roadway and construct Safe Routes to School improvements to implement local plans.	Lump Sum or Ongoing	$52,000,000	$68,335,000
PLA25586	Yes	Placer	PCTPA	G- System Management, Operations, and ITS	Electric Vehicle Charging and Alternative Fuels Infrastructure	Develop and construct an electric vehicle charging and alternative fuels infrastructure.	Lump Sum or Ongoing	$20,000,000	$26,283,000
PLA25601	Yes	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 2	In Placer County: Between Douglas Blvd. and Rocklin Road; Reconfigure I-80/SR 65 interchange to widen southbound to eastbound ramp from 1 to 2 lanes, and replace existing eastbound to northbound loop ramp with a new 3 lane direct flyover ramp.	2021-2036	$110,000,000	$172,033,000
PLA25602	Yes	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 3	In Placer County: Between Douglas Blvd. and Rocklin Road; Widen Taylor Road from 2 to 4 lanes between Roseville Parkway and Pacific Street, and Reconfigure I-80/SR 65 interchange to widen the southbound to westbound ramp from 2 to 3 lanes.	2021-2036	$179,000,000	$279,944,000
PLA25603	Yes	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 4	In Placer County: Between Douglas Blvd. and Rocklin Road; Reconfigure I-80/SR 65 interchange to construct one lane HOV direct connectors from eastbound to northbound and southbound to westbound (HOV lanes would extend to between Galleria Blvd. and Pleasant Grove Blvd. on SR 65).	2021-2036	$95,000,000	$148,574,000
PLA25634	Yes	Placer	PCTPA	E- Transit Capital (Major)	Placer County - Bus Rapid Transit Capital	Capital Costs for a three route Bus Rapid Transit (BRT) system serving South Placer County; including planning, engineering, environmental studies, right-of-way acquisition, vehicles, related roadway improvements, signalization, park & ride facilities, signage, bus stop improvements, ITS elements, fare vending equipment. BRT Route 1- CSUS Placer to Galleria to Watt/I-80 LRT station via I-80 HOV lane. BRT Route 2 - CSUS Placer to Placer Vineyards to Watt/I-80 LRT station via Watt Avenue. BRT Route 3 - Galleria to Hazel & Sunrise LRT stations via Sierra College Boulevard/Hazel Avenue.	Lump Sum or Ongoing	$82,526,000	$108,450,000
PLA25585	Yes	Placer	PCTPA	F- Transit O&M (BRT & Express)	Placer County - Bus Rapid Transit O&M	Annual operating & maintenance (O&M) costs ($5,704,000) specifically for a three route BRT system for Fiscal years 2019-2036) for a TBD transit operator.	Lump Sum or Ongoing	$142,600,001	$187,394,000
PLA25637	Yes	Placer	PCTPA	B- Road & Highway Capacity	SR 65 Capacity & Operational Improvements Phase 2	SR 65, from Galleria Blvd. to Lincoln Blvd., make capacity and operational improvements. Phase 2: From Galleria Blvd. to Blue Oaks Blvd., widen from 4 to 7 lanes with 1 carpool lane and 1 general purpose lane southbound, and 1 general purpose lane northbound.	2021-2036	$32,500,000	$50,828,000
PLA25638	Yes	Placer	PCTPA	B- Road & Highway Capacity	SR 65 Capacity & Operational Improvements Phase 3	SR 65, from Galleria Blvd. to Lincoln Blvd., make capacity and operational improvements. Phase 3: From Blue Oaks Blvd. to Lincoln Blvd., construct auxiliary lanes both northbound and southbound.	2021-2036	$12,000,000	$18,767,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
	Project Development Only	Placer	PCTPA	B- Road & Highway Capacity	SR 65 Capacity & Operational Improvements Phase 4	SR 65, from Galleria Blvd. to Lincoln Blvd., make capacity and operational improvements. Phase 4: From Lincoln Blvd. to Blue Oaks Blvd., widen southbound in median to add lane; and from north of Galleria Blvd. (end of the I-80/SR 65 Interchange project) to Lincoln Blvd., widen northbound in median to add lane. Future environmental document will be completed to determine if widening in median will be carpool or general purpose lanes.	Completion after 2036	$57,000,000	
PLA25631	**Yes**	Placer	PCTPA	F- Transit O&M (Bus)	Transit Operating & Maintenance	Lump-sum annual Operating & Maintenance costs for fiscal years 2019-2036; does not account for expansion of service	Lump Sum or Ongoing	$224,910,000	$295,560,000
PLA25519	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80 Eastbound Auxiliary Lane: SR 65 to Rocklin Rd.	In Rocklin: Between SR 65 (PM 4.5) and Rocklin Rd. (PM 5.9); Construct eastbound I-80 auxiliary lane, including two-lane off-ramp, concrete barrier/retaining walls, and shoulder improvements. (Toll credits for PE, ROW, and CON)	Completion by 2020	$4,990,000	$4,990,000
PLA25576	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80 Westbound 5th Lane	In Roseville: Between east of Douglas Blvd. off-ramp to west of Riverside Ave.; Extend I-80 westbound auxiliary lane (PLA25542) to the east and west to create continuous 5th lane on westbound I-80. The Douglas Boulevard off-ramp would be reduced from a 2-lane off-ramp to a 1-lane off-ramp.	Completion by 2020	$3,700,000	$3,700,000
PLA25542	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80 Westbound Auxiliary Lane - Douglas Blvd. to Riverside Ave.	In Roseville: Between Douglas Blvd.(PM 2.0) and Riverside Ave. (PM 0.2); Construct westbound I-80 auxiliary lane and shoulder improvements. (Toll credits for PE, ROW, and CON)	Completion by 2020	$5,910,000	$5,910,000
PLA25440	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 1A	In Placer County: Between I-80 and Galleria Blvd./Stanford Ranch Rd.; Reconfigure I-80/SR 65 interchange to widen northbound SR 65 from 2 to 3 lanes, including widening Galleria Boulevard/Stanford Ranch Road northbound off-ramp and on-ramp, and southbound on-ramp (PA&ED, PS&E, ROW, and CON to be matched with Toll Credits) SHOPP funding (EA 03-0H260) for auxiliary lane on northbound SR 65 between I-80 and Galleria Boulevard/Stanford Ranch Road.	2021-2036	$37,099,700	$37,099,700
PLA25648	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 1B	In Placer County: Between Galleria Boulevard/Stanford Ranch Road and Pleasant Grove Boulevard; Reconfigure I-80/SR 65 interchange to widen northbound SR 65 from 2 to 3 lanes, and widen I-80 westbound to SR 65 northbound ramp from 1 to 2 lanes.	2021-2036	$17,500,000	$17,500,000
PLA25649	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	I-80/SR 65 Interchange Improvements Phase 1C	In Placer County: Between I-80 and Pleasant Grove Boulevard; Reconfigure I-80/SR 65 interchange to widen southbound SR 65 from 2 to 3 lanes.	2021-2036	$11,500,000	$11,500,000
PLA25468	**Yes**	Placer	PCTPA	D- Programs & Planning	Placer County Congestion Management Program	Provide educational and outreach efforts regarding alternative transportation modes to employers, residents, and the school community through the Placer County Congestion Management Program (CMP). CMP activities will be coordinated with the City of Roseville and SACOG's Regional Rideshare / TDM Program. (KG/day ROG 54.00; NOx 60.00; PM10 39.00)	Completion by 2020	$955,429	$955,429
PLA25543	**Yes**	Placer	PCTPA	G- System Management, Operations, and ITS	Placer County Freeway Service Patrol	In Placer County: provide motorist assistance and towing of disabled vehicles during am and pm commute periods on I-80 (Riverside Ave to SR 49) and SR 65 (I-80 to Twelve Bridges Dr). (Emission Benefits in kg/day: ROG 7.35; NOx 1.10; PM10 1.16)	Completion by 2020	$550,000	$550,000
PLA25413	**Yes**	Placer	PCTPA	D- Programs & Planning	Planning, Programming, Monitoring 2011-2015	PCTPA plan, program, monitor (PPM) for RTPA related activities.	Completion by 2020	$1,455,000	$1,455,000
PLA25529	**Yes**	Placer	PCTPA	B- Road & Highway Capacity	SR 65 Capacity & Operational Improvements Phase 1	SR 65, from Galleria Blvd. to Lincoln Blvd., make capacity and operational improvements. Phase 1: From Galleria Blvd. to Pleasant Grove Blvd., construct auxiliary lanes on northbound and southbound SR 65, including widening Galleria Blvd. southbound off-ramp.	Completion by 2020	$16,520,000	$16,520,000
PLA25479	**Project Development Only**	Placer	Placer County	B- Road & Highway Capacity	16th St.	Construct New Road: 4 lanes from Sacramento/Placer County Line to Baseline Rd.	Completion after 2036	$12,955,800	
PLA25477	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Alpine Meadows Rd Bridge Rehabilitation	Alpine Meadows Rd over Truckee River, 0.1 miles west of SH 89: Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge. (Toll Credits programmed for ROW & CON)	Completion by 2020	$22,625,063	$22,625,063
PLA25472	**Yes**	Placer	Placer County	A- Bike & Ped	Auburn Folsom Rd Class II Bike Lane	On Auburn-Folsom Rd between Douglas Blvd and Joe Rodgers Rd, construct a Class II Bike lane on both sides of the road, including signing and striping; construct sidewalk on both sides of Auburn-Folsom Rd from Wilcox Place north to Joe Rodgers. (Emission benefits in kg/day: ROG 0.06, NOx 0.04, PM10 0.03) [Toll Credits for CON]	Completion by 2020	$1,227,674	$1,227,674
PLA25533	**Yes**	Placer	Placer County	A- Bike & Ped	Auburn Folsom Rd. Safety Improvements	Auburn Folsom Rd. from approximately 60' N of Willow Ln. to Robin Hood Ln.: Construct sidewalks, curb ramps, curb and gutter; install mid-block crosswalk; improve pavement friction; provide dynamic speed sign.(HSIP5-03-013)	Completion by 2020	$746,300	$746,300
PLA15070	**Yes**	Placer	Placer County	B- Road & Highway Capacity	Auburn Ravine Road at I-80 Overcrossing	Auburn Ravine Road overcrossing over I-80 between Bowman Road to Lincoln Way: widen overcrossing from 2 to 4 lanes.	2021-2036	$29,000,000	$45,354,000
PLA15080	**Yes**	Placer	Placer County	B- Road & Highway Capacity	Auburn-Folsom Rd Widening	From Placer / Sacramento County line to Douglas Blvd, : Widen to 4 lanes. Install signal at Auburn-Folsom Blvd and Fuller Dr.	Completion by 2020	$28,300,000	$28,300,000
PLA20680	**Yes**	Placer	Placer County	B- Road & Highway Capacity	Baseline Road Four to Six Lane Widening (East Portion)	Widen From 4 to 6 lanes from Watt Avenue to Fiddyment/Walerga Road.	2021-2036	$11,270,000	$17,626,000
PLA25127	**Project Development Only**	Placer	Placer County	B- Road & Highway Capacity	Baseline Road Four to Six Lane Widening (West Portion)	Placer County, Baseline Road from Watt Avenue to Sutter County Line, widen from 4 to 6 lanes.	Completion after 2036	$2,400,000	
PLA15105	**Yes**	Placer	Placer County	B- Road & Highway Capacity	Baseline Road Widening Phase 1 (West Portion)	Baseline Rd. from Watt Avenue to future 16th street: Widen from 2 to 4 lanes.	Completion by 2020	$19,200,000	$19,200,000
PLA25463	**Yes**	Placer	Placer County	B- Road & Highway Capacity	Baseline Road Widening Phase 2 (West Portion)	Baseline Road from Sutter County Line to Future 16th Street. Widen from 2 to 4 lanes.	2021-2036	$29,000,000	$29,000,000
PLA25447	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Bowman Rd Bridge	Bowman Rd, over UP Railroad, BNSF RR and AMTRAK, 0.1 miles south of 19C-62: Rehabilitate the existing bridge without adding additional lanes.	Completion by 2020	$2,230,002	$2,230,002
PLA25448	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Bowman Rd Bridge	Bowman Rd, over UP Railroad, BNSF Railyards & AMTRAK, 0.1 miles north of 19C-61: Rehabilitate the existing bridge without adding additional lanes.	Completion by 2020	$2,230,002	$2,230,002
PLA25518	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Brewer Rd. Bridge Replacement	Brewer Rd., over Pleasant Grove Creek, 4.2 miles north of Baseline Rd.: Replace 2-lane bridge with a new 2-lane bridge. (Toll Credits for PE, ROW, & CON.)	Completion by 2020	$5,518,500	$5,518,500
PLA25559	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Bridge Approach and Non-HBP Partipating Costs	In Placer County, bridge approach and non-HBP participating costs at Alpine Meadows @ Truckee River and Dowd Road @ Yankee Slough. (Toll Credits for CON)	Completion by 2020	$1,000,000	$1,000,000
PLA25458	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance	In various location ins Placer County, perform preventive maintenance on bridges.1. Squaw Valley Rd., over Squaw Creek, 2 mi west of SH 89, Bridge Rail Replacement, Deck Rehab.2. Donner Pass Rd., over S. Yuba River, north of Yuba Dr., Bridge Rail Replacement, Deck Rehab.3. Cisco Rd., over S. Yuba River, near Hampshire Rocks Rd., Replace Joint Seals, Deck Rehab.4. Alpine Meadows Rd., over Bear Creek, 0.9 mi west of SH 89, Polyester Concrete Deck Overlay.5. Fowler Rd., over Auburn Ravine, 0.6 mi north of SH 193, Methacrylate Deck Overlay.6. Gold Hill Rd., over Doty Ravine, 0.3 mi south of Wise Rd., Methacrylate Deck Overlay.7. Develop Bridge Preventive Maintenance Plan.	Completion by 2020	$1,356,000	$1,356,000
PLA25583	**Yes**	Placer	Placer County	E- Transit Capital (Vehicles)	CNG Bus	Replace one CNG bus with one new cleaner CNG Bus for Placer County Transit. (Emissions Benefits in kg/day: NOx 0.75.)	Completion by 2020	$530,000	$530,000
PLA25565	**Yes**	Placer	Placer County	A- Bike & Ped	Cook Riolo Road Pathway	Pedestrian Pathway along Cook Riolo Rd from existing sidewalk at Creekview Ranch Middle School North (Emission Benefits in kg/day: ROG 0.04, NOx 0.02, PM10 0.01) [Toll Credits for PE, ROW, CON]	Completion by 2020	$2,190,157	$2,190,157
PLA25536	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Crosby Harold Rd. Bridge	Crosby Harold Rd. Over Doty Creek, 0.9 mi N of Wise Rd.: Replace an existing 1 lane bridge with a new 2 lane bridge. (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,790,000	$2,790,000
PLA25453	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Dowd Rd at Yankee Slough Bridge Replacement	Dowd Rd. over Yankee Slough, just south of Dalby Rd.: Replace existing structurally deficient 1 lane bridge with new 2 lane bridge. (Toll Credits for CON)	Completion by 2020	$4,812,511	$4,812,511
PLA25449	**Yes**	Placer	Placer County	C- Maintenance & Rehabilitation	Dowd Rd Bridge Replacement at Coon Creek	Dowd Rd over Coon Creek, 0.4 miles north of Wise Rd.: Replace existing 2 lane bridge with a new 2 lane bridge. (Toll Credits programmed for ROW & CON)	Completion by 2020	$5,675,000	$5,675,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PLA25474	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Dowd Rd Bridge Replacement at Markham Ravine	Dowd Rd, over Markham Ravine, 0.5 miles south Nicolaus Rd: Replace existing 2 lane structurally deficient bridge with a new 2 lane bridge. (Toll credits for CON.)	Completion by 2020	$5,050,000	$5,050,000
PLA18390	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	Dyer Lane Extension	Extend Dyer Lane west/north to Baseline Road at Brewer Road and east/north to Baseline Road west of Fiddyment Road and widen to four lanes in accordance with the Placer Vineyards Specific Plan.	Completion after 2036	$18,247,600	
PLA25130	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	Fiddyment Road Widening	Widen Fiddyment Road from 2 lanes to 4 lanes from Roseville City Limits to Athens Road.	Completion after 2036	$11,550,000	
PLA15220	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	Foothills Boulevard	Foothills Blvd.: Construct as a 2 lane road from the City of Roseville to Sunset Blvd.	Completion after 2036	$4,062,300	
PLA25541	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Gold Hill Rd. Bridge Replacement	Gold Hill Rd. over Auburn Ravine, 0.65 mi north of SR 193: Replace existing 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW, CON)	Completion by 2020	$5,018,250	$5,018,250
PLA25475	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Haines Rd Bridge Replacement	Haines Rd, over Wise Canal, 0.45 miles North of Bell Rd: Replace the existing functionally obsolete 2 lane bridge with a new 2 lane bridge. (Toll Credits for PE, ROW, & CON)	Completion by 2020	$5,180,000	$5,180,000
PLA25562	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	HMA Overlay, Various County Roads (Yr2)	In Placer County, hot mix asphalt (HMA) overlay on various County roads: (1) Douglas Boulevard from Barton to Auburn-Folsom, (2) Dry Creek Road from Joeger to HWY 49, (3) Richardson Drive from Atwood Rd to Bell Rd, (4) Nevada Street from 150' east of Nevada Way to Auburn City Limits, (5) Edgewood Road from SR49 to Edgewood Place (Toll Credits for CON). Toll Credits for CON	Completion by 2020	$2,809,435	$2,809,435
PLA25563	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	HMA Overlay, Various County Roads (Yr3)	In Placer County, hot mix asphalt (HMA) overlay on various County roads: (1) Sierra College Boulevard from Olympus Rd to Eureka Rd, (2) Old State Highway from Taylor Rd to HWY 193, (3) Fruitvale Road from Fowler Rd to Gold Hill Rd, (4) West Wise Road from HWY 65 to Lincoln-Sheridan Blvd (Toll Credits for CON)	Completion by 2020	$2,299,047	$2,299,047
PLA25512	Yes	Placer	Placer County	D- Programs & Planning	King Rd. Safety Lane Widening	King Rd. between Auburn Folsom Rd. and Sudor Ln.: Widen travel lanes; construct drainage improvements. HSIP4-03-007 [Toll Credits for CON]	Completion by 2020	$1,200,000	$1,200,000
PLA20350	Yes	Placer	Placer County	B- Road & Highway Capacity	Local Roads in Auburn	In and near Auburn - adjacent to Route 49 between I-80 and Dry Creek Road - three new local connector roads; 1)Quartz Drive Connector from Route 49 to Locksley Lane, 2) Willow Creek Drive Connector from Route 49 to 1st Street in Dewitt Center, and 3)Edgewood Road Conector from Route 49 to Alta Mesa Drive (City of Auburn) - state and local funding only. LIMITS: Auburn and north of Auburn, three connector roads intersecting with State Route 49. (1) Quartz Drive Connector, (2) Willow Creek Drive Connector (3) Edgewood Road Connector. STREET NAME: Local Roads in Auburn	Completion by 2020	$3,671,000	$3,851,000
PLA25549	Yes	Placer	Placer County	A- Bike & Ped	Martis Valley Trail	Complete a 10' wide paved Class I multipurpose trail connecting Northstar Village roundabout to the southerly border of Army Corps property. (Emission Benefits in kg/day; ROG 0.02;NOx 0.01;PM10 0.01)	Completion by 2020	$4,700,000	$4,700,000
PLA15270	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	North Antelope Rd.	North Antelope Rd: Widen from 2 to 4 lanes from Sacramento County line to PFE Rd.	Completion after 2036	$1,551,000	
PLA15300	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	Parallel Rd.	In Placer County, east of Route 49, from Dry Creek Rd to Quartz Rd, construct a 2 lane road. Name of road shall be determined in the future.	Completion after 2036	$6,025,000	
PLA25532	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Pavement Markings	Various locations throughout Placer County: Install pavement markings (HSIP5-03-011, HSIP5-03-012)	Completion by 2020	$1,251,500	$1,251,500
PLA25564	Yes	Placer	Placer County	A- Bike & Ped	Pedestrian Improvements along Hwy 49, Education Street, and Town Court	Along Hwy 49 on the westside from Bell Rd to Education St. South side of Education St. west to connect to existing sidewalk and improve ADA ramps & crosswalks along Town Court (Emissions Benefits in kg/day: ROG 0.07, NOx 0.04, PM10 0.02) (Toll Credits for PE, ROW, CON)	Completion by 2020	$925,000	$925,000
PLA20690	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	PFE Rd.	Widen: 4 lanes from North Antelope Rd. to Roseville City Limits.	Completion after 2036	$2,215,100	
PLA18490	Yes	Placer	Placer County	B- Road & Highway Capacity	PFE Rd. Widening	PFE Rd, from Watt Ave. to Walerga Rd: Widen from 2 to 4 lanes and realign.	Completion by 2020	$13,085,000	$13,085,000
PLA25299	Yes	Placer	Placer County	B- Road & Highway Capacity	Placer Parkway Phase 1	In Placer County: Between SR 65 and Foothills Boulevard; Construct phase 1 of Placer Parkway, including upgrading the SR 65/Whitney Ranch Parkway interchange to include a southbound slip off-ramp, southbound loop on-ramp, northbound loop on-ramp, six-lane bridge over SR 65, and four-lane roadway extension from SR 65 (Whitney Ranch Parkway) to Foothills Boulevard.	Completion by 2020	$70,000,000	$70,000,000
PLA25567	Yes	Placer	Placer County	G- System Management, Operations, and ITS	Safety Surface Treatment	At 18 various locations throughout Placer County: install high friction surface treatment. (HSIP6-03-010)	Completion by 2020	$1,537,600	$1,537,600
PLA15390	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	Sierra College Blvd.	Widen Sierra College Blvd. from 2 to 4 lanes from Route 193 to Loomis Town Limits.	Completion after 2036	$13,000,000	
PLA25568	Yes	Placer	Placer County	G- System Management, Operations, and ITS	Signage Upgrades	Various corridors throughout Placer County: Conduct a Roadway Safety Signing Audit and upgrade signs. (HSIP6-03-011)	Completion by 2020	$1,658,522	$1,658,522
PLA25598	Project Development Only	Placer	Placer County	B- Road & Highway Capacity	SR 49	Widen from Bell Road to Dry Creek Road (total construction cost is $10,000,000)	Completion after 2036	$1,000,000	
PLA25628	Yes	Placer	Placer County	B- Road & Highway Capacity	SR 49	Widen from 4 lanes to 6 lanes from Luther Road to Nevada Street.	2021-2036	$1,000,000	$1,220,000
PLA25630	Yes	Placer	Placer County	G- System Management, Operations, and ITS	SR49 Signalizations/ Improvements	Signalizations and Improvements along SR 49 in Auburn/North Auburn.	Completion by 2020	$13,000,000	$13,636,000
PLA25170	Yes	Placer	Placer County	B- Road & Highway Capacity	Sunset Blvd Phase 2	Sunset Blvd, from Foothills Boulevard to Fiddyment Rd: Construct a 2-lane road extension [PLA15410 is Phase 1.]	Completion by 2020	$6,365,000	$6,365,000
PLA25044	Yes	Placer	Placer County	B- Road & Highway Capacity	Sunset Blvd. Widening	Widen Sunset Boulevard from State Route 65 to Cincinnati Avenue from 2 to 4 lanes. Project includes widening Industrial Blvd / UPRR overcrossing from 2 to 4 lanes.	Completion by 2020	$8,675,000	$8,675,000
PLA25584	Yes	Placer	Placer County	A- Bike & Ped	Truckee River Trail	Along SR89, from Squaw Valley Road to the USFS Silver Creek Campground: construct 1.4 miles of multi-use trail . (Emission Benefits in kg/day; ROG 0.01; NOx 0.01)	Completion by 2020	$4,500,000	$4,500,000
PLA25506	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Walerga Rd/Dry Creek Bridge Replacement	Walerga Rd, over Dry Creek, 1.1 mi S Base Line Rd. Rehabilitate the existing 2 lane bridge without adding additional lanes. High Cost Project agreement required.	Completion by 2020	$21,870,000	$21,870,000
PLA15420	Yes	Placer	Placer County	B- Road & Highway Capacity	Walerga Road	Walerga Rd: Widen and realign from 2 to 4 lanes from Baseline Rd. to Placer / Sacramento County line.	Completion by 2020	$13,781,700	$13,781,700
PLA25535	Yes	Placer	Placer County	B- Road & Highway Capacity	Watt Ave. Bridge Replacement	Watt Ave./Center Joint Ave., over Dry Creek, 0.4 mi north of P.F.E. Rd.: Replace existing 2 lane bridge with a 4 lane bridge.	Completion by 2020	$19,892,750	$19,892,750
PLA20700	Yes	Placer	Placer County	B- Road & Highway Capacity	Watt Avenue	Watt Avenue, from Baseline Rd. to Sacramento County Line: Widen from 2 to 4 lanes.	2021-2036	$13,270,800	$16,194,000
PLA25513	Yes	Placer	Placer County	C- Maintenance & Rehabilitation	Wise Rd Bridge Replacement	Wise Rd, over Doty Creek, 0.5 miles east of Garden Bar: Replace existing 1-lane functionally obsolete bridge with a new 2-lane bridge.	Completion by 2020	$4,759,200	$4,759,200
PLA25505	Yes	Placer	Placer County	B- Road & Highway Capacity	Yankee Jim's Rd Bridge at North Fork American River	Bridge No. 19C0002, Yankee Jim's Rd over North Fork American River, 1.5MI W of Shirttail Cyn Rd, Replace structurally deficient 1 lane bridge with a new 2 lane bridge. (Toll credits programmed for PE, ROW & CON.)	Completion by 2020	$14,999,400	$14,999,400
PCT10494	Yes	Placer	Placer County Transit	E- Transit Capital (Minor)	CNG Station Upgrade Phase 2	Dewitt Center in Auburn: Increase of CNG compressor capacity at Placer County CNG fueling station in Auburn. (Emissions Benefits in kg/day: 3.46 NOx, 0.12 PM10.) *Local Funds are Air District Funds*	Completion by 2020	$576,809	$576,809
PLA25550	Yes	Placer	Placer County Transit	F- Transit O&M (Bus)	Lincoln Transit (Subrecipient) Operating Assistance	Lincoln Transit (Subrecipient)- Operating assistance and preventive maintenance for transit services within the City of Lincoln. Sacramento Urbanized Area.FFY 2014 operating assistance: $149,108FFY 2014 preventive maintenance: $12,281	Completion by 2020	$1,616,076	$1,616,076

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PCT10501	Yes	Placer	Placer County Transit	E- Transit Capital (Vehicles)	Placer County CNG Replacement Buses	Replace four CNG powered buses currently in use by Placer County Transit. The new CNG buses will be used on regional transit routes connecting Rocklin, Lincoln, Loomis, Auburn and Placer County to Roseville and the Watt/I-80 Light Rail Station. (Emission Benefits in kg/day: 3.16 NOx)	Completion by 2020	$2,059,528	$2,059,528
PCT10491	Yes	Placer	Placer County Transit	F- Transit O&M (Bus)	Placer County Non-Urbanized Transit Operations	Operating assistance for rural transit services within Placer County. Outside the Sacramento Urbanized Area.FFY 2015: $291,197FFY 2016: $291,197	Completion by 2020	$7,357,017	$7,357,017
PCT10493	Yes	Placer	Placer County Transit	F- Transit O&M (Demand Response)	Preventive Maintenance, ADA Operations, and Operating Assistance 2009-2016	Operating assistance, preventive maintenance, and ADA operations for transit services for urban transit services within El Dorado County as well as commuter service to / from Sacramento. Sacramento Urbanized Area.FFY 2009 preventive maintenance: $324,890FFY 2009 ADA operations: $281,700FFY 2010 preventive maintenance: $300,000FFY 2010 ADA operations: $200,000FFY 2011 preventive maintenance: $324,890FFY 2011 ADA operations: $206,700FFY 2012 preventive maintenance: $32,890FFY 2012 ADA operations: $217,000FFY 2012 Fuel: $84,429FFY 2013 Operating assistance: $539,341FFY 2014 Operating assistance: $563,744FFY 2014 preventive maintenance: $56,696FFY 2015 preventive maintenance: $341,000FFY 2015 ADA operations: $217,000FFY 2016 preventive maintenance: $341,000FFY 2016 ADA operations: $217,000	Completion by 2020	$8,821,325	$8,821,325
PCT10488	Yes	Placer	Placer County Transit	E- Transit Capital (Vehicles)	Purchase 2 Replacement Buses	Purchase of two (2) 35' CNG replacement buses for Placer County Transit. (Emission Benefits: 0.5 kg/day NOx)	Completion by 2020	$1,000,000	$1,000,000
PCT10504	Yes	Placer	Placer County Transit	E- Transit Capital (Vehicles)	T.A.R.T Bus Purchase	Replace one 35-foot bus for Tahoe Area Reginal Transit.	Completion by 2020	$525,000	$525,000
PCT10505	Yes	Placer	Placer County Transit	F- Transit O&M (Bus)	TART Operations	TART operations (lump sum) on SR89 amd SR267 corridors within Placer County/SACOG region.	Lump Sum or Ongoing	$22,000,000	$28,911,000
VAR56123	Yes	Placer	Pride Industries/CTSA	E- Transit Capital (Vehicles)	Pride Industries One, Inc. 5310 Replacement Bus and Cameras	FTA 5310 funds will be used to purchase one (1) Medium Bus that accommodates up to 14 passengers (incl. 2 wheelchair positions) & a driver and thirty-eight (38) cameras for Pride Industries. (Uses Toll Credits for local match).	Completion by 2020	$105,989	$105,989
VAR56109	Yes	Placer	SACOG	F- Transit O&M (Bus)	Roseville Transit JARC Operating Assistance	Use FY 2011 & 2012 Urbanized Area JARC funds to operate two fixed route buses to extend routes A & B from 6:30 to 9:30 PM M-F, and 1 DAR bus to extend service from 7:00 to 9:30 PM.	Completion by 2020	$371,680	$371,680
PLA20721	Project Development Only	Placer	South Placer Regional Transportation Authority	B- Road & Highway Capacity	Placer Parkway	New 4 lane connector (ultimate 6 lanes freeway) in 500'- to 1,000'-wide corridor connecting SR 70/99 (between Riego Road & Sankey Road) to Watt Avenue. (Note: as the project proceeds, Parkway segments will be administered by different lead agencies depending upon location of the segment. In Placer County, it will be SPRTA or Roseville and/or Placer County; in Sutter County it will be Sutter County.)	Completion after 2036	$295,000,000	
PLA25592	Yes	Placer	South Placer Regional Transportation Authority	B- Road & Highway Capacity	Placer Parkway Phase 3	Construct New Road: 4 lane divided Hwy. between Fiddyment Rd and Watt Avenue. Includes signalized intersections at Watt Avenue.	2021-2036	$85,000,000	$132,934,000
PLA25579	Yes	Placer	Town of Loomis	C- Maintenance & Rehabilitation	2017 CIP Road Maintenance Project	Asphalt overlay and reconstruction repair of various streets in the Loomis Downtown Core Area covered under the Capital Improvement Program Schedule for 2017.	Completion by 2020	$500,000	$500,000
PLA25264	Project Development Only	Placer	Town of Loomis	A- Bike & Ped	Antelope Creek	Bikeway Facilities: In Loomis along Antelope Creek, construct Class I bike and pedestrian facility. Federal permitting may be required as part of this project.	Completion after 2036	$50,000	
PLA25278	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	Antelope Creek	Roadway Operational Improvements: Expand/ replace culvert along Antelope Creek at King Rd. from Sierra College Blvd. to Vet Clinic. Includes: ancillary road work.	Completion after 2036	$60,000	
PLA25260	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Barton Rd. Widening	Widen: from Brace Rd. to S. Town limits to standard lane widths. Includes: bike lanes.	Completion after 2036	$210,000	
PLA25259	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Brace Rd.	Widen from Sierra College Blvd. to Horseshoe Bar Rd. to standard lane widths. Includes: bike lanes.	Completion after 2036	$100,000	
PLA25258	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Brace Rd. / Horseshoe Bar Rd.	Road Realignment: two existing intersections into one intersection. Includes: related signalization improvements.	Completion after 2036	$60,000	
PLA25277	Project Development Only	Placer	Town of Loomis	C- Maintenance & Rehabilitation	Brace Rd. Bridge Improvements	Replace Bridge: at Secret Ravine creek. Includes: ancillary road work.	Completion after 2036	$50,000	
PLA15290	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Doc Barnes Dr.	Road Extension: 2 lanes, landscaped median and bike lanes from Horseshoe Bar Rd. to King Rd.	Completion after 2036	$200,000	
PLA16350	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Horseshoe Bar Road at I-80 Overcrossing Widening	Widen Horseshoe Bar Rd. @ I-80 overcrossing 2 to 4 lanes and improve ramps.	Completion after 2036	$15,000,000	
PLA25597	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Horseshoe Bar Road Widening	Widen from Taylor Rd. to Highway 80 Interchange 2000 feet of two-way left turn lanes/landscaped median, bike lanes, sidewalk, curb, gutter & underground Drainage system	Completion after 2036	$800,000	
PLA25261	Project Development Only	Placer	Town of Loomis	C- Maintenance & Rehabilitation	I-80	Modify Bridge: Brace Rd. Bridge to Caltrans standards.	Completion after 2036	$1,000,000	
PLA25262	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	King Rd.	Interchange Modification: existing King Rd. overcrossing to accommodate freeway access for traffic from King Rd. onto WB I-80. Includes: a transition auxiliary lane on I-80 from King Rd. to Horseshoe Bar interchange.	Completion after 2036	$500,000	
PLA25279	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	King Rd.	Roadway Operational Improvements: at Sucker Ravine and King Rd. expand culvert. Includes: ancillary road work. Federal permitting may also be required as part of this project.	Completion after 2036	$10,000	
PLA15350	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Rocklin Rd. Widening	In Loomis, Rocklin Rd. from Barton Rd. to west town limits: widen from 2 to 4 lanes.	Completion after 2036	$1,200,000	
PLA25274	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	S. Holly Area	Roadway Operational Improvements: Storm drain extension in the South Holly area. Includes: ancillary road work. Federal permitting may also be required as part of this project.	Completion after 2036	$40,000	
PLA25263	Project Development Only	Placer	Town of Loomis	A- Bike & Ped	Secret Ravine	Bikeway Facilities: Along Secret Ravine creek system from north Loomis town limits to south Loomis town limits, construct Class I bike and pedestrian facility.	Completion after 2036	$60,000	
PLA25280	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	Sierra College Blvd.	Roadway Operational Improvements: Culvert expansion at Loomis Tributary and Sierra College Blvd. Includes: ancillary road work.	Completion after 2036	$40,000	
PLA20510	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Sierra College Blvd. Railroad Crossing Improvements	Construct 4 lane overcrossing/undercrossing at UPRR Tracks.	Completion after 2036	$3,000,000	
PLA20890	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Sierra College Blvd. Widening	In Loomis, Sierra College Blvd. from railroad tracks (Taylor Rd.) to the north town limits: widen from 2 to 4 lanes and construct turn lanes, bike lanes, and landscaped median.	Completion after 2036	$5,899,180	
PLA20960	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Sierra College Boulevard Widening	In Loomis, Sierra College Blvd. from Granite Drive to Taylor Road: widen from 4 to 6 lanes.	Completion after 2036	$3,600,000	
PLA25276	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	Sunrise-Loomis Subdivision	Roadway Operational Improvements: Upgrade storm drain facilities in the Sunrise-Loomis subdivision. Includes: ancillary road work.	Completion after 2036	$50,000	
PLA25269	Project Development Only	Placer	Town of Loomis	G- System Management, Operations, and ITS	Taylor Rd.	Roadway Operational Improvements: Construct storm drain facility from King Rd. to Sierra College Blvd. Includes: ancillary road work. Federal permitting may also be required as part of this project. Phase 1 is King Rd. to Walnut Street, $800,000.	Completion after 2036	$230,000	
PLA15940	Yes	Placer	Town of Loomis	A- Bike & Ped	Taylor Road Complete Streets	Taylor Rd. complete streets improvements from Horseshoe Bar Road to King Road.	2021-2036	$425,000	$519,000
PLA25530	Yes	Placer	Town of Loomis	C- Maintenance & Rehabilitation	Taylor Road Overlay Maintenance Project	Taylor Road: Asphalt overlay.	Completion by 2020	$460,000	$460,000
PLA25548	Yes	Placer	Town of Loomis	D- Programs & Planning	Town Center Implementation Plan Improvements Phase 2	Taylor Road, Horseshoe Bar Road to Walnut Street: streetscape improvements. (Emissions in kg/day: 0.06 ROG, 0.04 NOx, 0.02 PM10)	Completion by 2020	$791,000	$791,000
PLA25600	Project Development Only	Placer	Town of Loomis	B- Road & Highway Capacity	Webb St. Extension	Extend from Laird St. to future Doc Barnes Dr. 1800 feet of two-way left turn lanes/landscaped median, bike lanes, sidewalk, curb, gutter & underground Drainage system	Completion after 2036	$1,000,000	

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
PLA25556	Yes	Placer	USFS Tahoe National Forest	G- System Management, Operations, and ITS	Sugar Pine OHV Staging Area	Outside of Foresthill, Sugar Pine Off Highway Vehicle (OHV) Staging Area: Renovation of an existing staging area, including parking, accessible restrooms, and picnic facilities. (RM-13-016)	Completion by 2020	$325,950	$325,950
PLA25594	Yes	Placer	Western Placer Consolidated Transportation Service Agency	E- Transit Capital (Major)	Placer County - CTSA Capital	Capital costs for CTSA Article 4.5 & complementary ADA dial-a-ride services for designated CTSA operating in Placer County, including vehicles, miscellaneous capital items & facilities expansion.	Lump Sum or Ongoing	$55,490,317	$72,921,000
PLA25593	Yes	Placer	Western Placer Consolidated Transportation Service Agency	F- Transit O&M (Demand Response)	Placer County - CTSA O&M	Annual operation & maintenance (O&M) costs for Article 4.5 Community Transit Services & complimentary Transit Services & complimentary ADA dial-a-ride services for designated CTSA of Placer County servicing Placer County & Cities	Lump Sum or Ongoing	$28,233,907	$37,103,000
SAC24771	Yes	Sacramento	Arcade Park Dist.	A- Bike & Ped	Jo Smith Trail Pedestrian Bridge	Sacramento, near American River College Campus, Jo Smith Nature Trail: Extend by approximately .7 miles and construct a pedestrian bridge across Arcade Creek. (RT-34-022)	Completion by 2020	$622,828	$622,828
CAL20625	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	Caltrans District 3 Traffic Management Center (TMC)	Upgrade Caltrans District 3 TMC to manage US 50, I-80 and other ITS Deployments	Completion by 2020	$1,500,000	$1,573,000
CAL20451	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	Camellia City Viaduct	In the City and County of Sacramento, on US 50, at Camellia City Viaduct #24-0248R/L - Rehab bridge decks (PM 1.6) [CTIPS ID 107-0000-0857; EFIS ID 0300000073] (Toll Credits)	Completion by 2020	$46,205,000	$46,205,000
CAL20642	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	Capital City Freeway (SR 51) widening over the American River	Bridge Widening: Widen SR51 over the American River NB and SB, to 4 lanes plus a bus carpool lane in both directions. New Class I bike path next to the freeway.	2021-2036	$131,000,000	$204,875,000
CAL20482	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	Fort Sutter Viaduct Bridge	In the city and county of Sacramento, at Fort Sutter Viaduct Bridge #24-188R (PM 0.2/1.1) (Toll Credits) - Grind asphalt concrete and place methacrylate overlay on bridge deck [EFIS ID #03-1200-0055]	Completion by 2020	$9,347,000	$9,347,000
CAL20591	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	I- 5 / SR 99 Interchange	I-5/SR 99 Interchange Reconstruction: includes: bus/carpool lane freeway to freeway connectors.	Completion after 2036	$200,000,000	
CAL17660	Yes	Sutter	Caltrans D3	B- Road & Highway Capacity	Sutter SR 99 Corridor Widening	Near Yuba City, Route 99 from Nicholas Ave/Garden Highway to Sacramento Avenue: widen from 2 to 4 lanes, with a median left-turn lane, new bridge (PM 11.0/14.3) [CTIPS ID 107-0000-0688; EFIS ID 0300000206]	Completion by 2020	$57,811,000	$57,811,000
SUT18872	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Live Oak Collaborative Highway 99 Streetscape Improvements (PSR only)	In Live Oak, SR 99, from Paseo Avenue to Riviera Road: widen from 2 to 4 lanes and build streetscape improvements. (PSR_PDS Lite only)	Completion by 2020	$100,000	$100,000
CAL20506	Yes	Multiple Counties	Caltrans D3	C- Maintenance & Rehabilitation	I-5, SR 51, US 50 High Friction Surface Treatments	In Sacramento County, on Route 51 at PM L4.3; also in Yolo and El Dorado counties on I-5 (PM 9.3) and US 50 (PM 61.1/61.3) - Install high friction surface treatment [CTIPS ID 107-0000-0957]	Completion by 2020	$880,000	$880,000
CAL20417	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Aux Lanes, Florin to Pocket	On I-5, in the City and County of Sacramento, northbound and southbound from Florin Road to Pocket Road - construct auxiliary lanes in both directions (PM 16.1/17.2) [EFIS ID 0300001102]	Completion after 2036	$1,500,000	
CAL20527	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Airport Boulevard Aux Lane	Near Sacramento, at I-5 / Airport Boulevard northbound offramp - Lengthen deceleration lane (PM 31.8/32.8) [EFIS ID 0313000316; CTIPS ID 107-0000-0984] (PE ONLY. Total Project Cost: $2,435,000)	Completion by 2020	$2,435,000	$2,435,000
CAL20495	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 Beach Lake Bridge High Friction Surface Treatment	On I-5, near Elk Grove, at Beach Lake Bridge #24-262R/L (PM 12.9/13.1) - Apply high friction treatment on bridge deck [CTIPS ID 107-0000-0937]	Completion by 2020	$1,117,000	$1,117,000
CAL18790	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Bus/Carpool Lanes	Bus/Carpool Lanes: I-80 to Sacramento International Airport in both directions	Completion after 2036	$100,000,000	
CAL20468	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 Bridge Rehab	In the city of Sacramento on I-5, at West End Viaduct #24-0069R/L - Bridge deck rehabilitation (PM 23.6/24.2) [CTIPS ID 107-0000-0906; EFIS ID 0300000074] [Project to be combined with EA 03-2F210/CAL20469 for Design-Build under EA 03-2F21U] (Toll Credits)	Completion by 2020	$11,188,000	$11,188,000
CAL20530	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	I-5 CHP Crossovers	In Sacramento and San Joaquin counties, on I-5, at various locations - Construct paved crossovers and California Highway Patrol/Maintenance pullouts (PM 0.1/18.4) [EFIS ID 0314000145; CTIPS ID 107-0000-0986] (Toll credits for PE, ROW, CON)	Completion by 2020	$1,900,000	$1,900,000
CAL20500	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 High Friction Surface Treatment	In Sacramento County on Routes 5, 50 and 80 at various locations, and in Butte County on Route 191 - Place high friction surface treatment [CTIPS ID 107-0000-0938] (Toll Credits for PE, ROW, and CON)	Completion by 2020	$2,187,000	$2,187,000
CAL20478	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5/US 50/SR 51/SR 99 Roadside Pavement and Safe Access	In and near Sacramento, on I-5, US 50, SR 51 and SR 99 at various locations - Roadside pavement and safe access for employees (Toll Credits for PE, ROW, CON) [CTIPS ID 107-0000-0915]	Completion by 2020	$3,589,000	$3,589,000
CAL20376	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 99 Corridor Native Planting	In Sacramento County, from the San Joaquin County line to Mack Road - Install native planting at various locations (PM 0.0/17.7) [CTIPS ID 107-0000-0731; EFIS ID 0300020406] (Toll Credits for PE, ROW, & CON)	Completion by 2020	$1,197,000	$1,197,000
CAL20467	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 HOV Lanes - Phase 2	In Sacramento County on I-5, from just north of Morrison Creek to south of Stone Lake Creek - Add high-occupancy vehicle (HOV) lanes (i.e., bus/carpool lanes) (PM 9.7/13.1) [EFIS ID 0312000171]; see 03-3C001 (CAL20466) for Phase 1 [PA&ED being done under 03-3C000 (CAL17840)].	Completion after 2036	$70,600,000	
CAL20544	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 99 Median Barrier Gap Closure	In Sacramento County, on SR 99, at PM 35.1/36.8; also in Sutter County, on SR 99, at PM 0.0/0.1 - Install double thrie beam median barrier [CTIPS ID 107-0000-0997] (Toll credits for PE, ROW, CON)	Completion by 2020	$1,596,000	$1,596,000
CAL20517	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 99 Weigh in Motion (WIM) Facilities	Near Elk Grove on SR 99, from 0.1 to 0.2 mile south of Badger Creek Bridge - Replace Weigh in Motion (WIM) station sensors and associated electronics (PM 6.8/6.9) [EFIS ID 0313000143; CTIPS ID 107-0000-0964] (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,098,000	$2,098,000
SUT16950	Yes	Sutter	Caltrans D3	B- Road & Highway Capacity	SR 99 / Riego Road Type L-9 Interchange	In Sutter and Sacramento Counties, SR-99 at Riego Road, construct Type L-9 partial cloverleaf interchange with 8-lane overcrossing structure (Sut-99-0.0/1.6; Sac-99-36.3/36.9) (project will use tapered match funding) [ID changed from CAL16950] [CTIPS ID 107-0000-0494; EFIS ID 0300000614]	Completion by 2020	$30,790,000	$30,790,000
CAL20535	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	I-5/SR 113 Bridge Deck Rehab	In and near Woodland, on I-5 and SR 113 at various locations - Place polyester overlay or methacrylate seal [EFIS ID 0314000029; CTIPS ID 107-0000-0988]	Completion by 2020	$3,579,000	$3,579,000
CAL18801	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5/US 50 Riverfront Interchange Reconstruction	Reconstruct I-5/US50 Riverfront Interchange, including bus/carpool lane connectors	Completion after 2036	$100,000,000	
YOL19290	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	I-5 / CR 102 Interchange Landscaping	In Woodland, within the limits of the I5/CR102 Interchange project: Construct landscaping and irrigation associated with the I-5 / CR 102 Interchange Project (SACOG ID# YOL17300) (Toll Credits for CON.)	Completion by 2020	$1,151,989	$1,151,989
CAL18450	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-80 HOV Across the Top	Sacramento County, on I-80 from RT Station (Longview) to the Sacramento River - construct high occupancy vehicle lanes (Emissions Benefits: ROG 67, NOx 62, PM10 55 kg/day) [Project using "tapered match," matching CMAQ funds with bond funds during later phases] (PM M0.3/M10.4) [EFIS ID 0300000434]. Project was combined with 03-0A931 (CAL20378) for construction using EA 03-3797U.	Completion by 2020	$63,037,000	$63,037,000
CAL20378	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-80 Rehabilitation	In Sacramento on Interstate 80, from the Sacramento River Bridge and Overhead to Norwood Avenue - Rehabilitate roadway (PM M0.3/M8.9) [CTIPS ID 107-0000-0768; EFIS ID 0300000011]. Project was combined with 03-37970 (CAL18450) for construction using EA 03-3797U.	Completion by 2020	$69,998,000	$69,998,000
CAL20646	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	ITS - RTMC Video Wall Upgrade	Upgrade video wall at Regional Transportation Management Center (RTMC).	Completion by 2020	$1,000,000	$1,049,000
CAL20496	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	Natoma Overhead Widening and On-Ramp Improvements	In Folsom, Sacramento County, along US 50 at Natoma Overhead #24-120 (PM 16.9/17.4) - Widen Natoma Overhead by two lanes to accommodate EB loop on-ramp weave and new transition lane for congestion relief [EB loop on-ramp includes an HOV bypass lane and ramp metering] (CTIPS ID 107-0000-0975)	Completion by 2020	$8,500,000	$8,500,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
CAL20669	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SAC 05/80 Bridge Deck Rehab and Rail Upgrade	I-5, Florin Road OC (Br #24-0264) and on I-80 Del Paso OH Bridges R/L (Br #24-0193R/L) - Perform deck maintenance and rehab of three bridges	2021-2036	$10,230,000	$12,483,000
CAL20659	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	Sac Roadway Rehabilitation	In Sacramento, from Florin Road OC (Br #24-264) to American River Bridge (#24-68) - Preserve and extend life of existing pavement and improve ride quality	2021-2036	$92,000,000	$112,266,000
CAL20505	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	Sac/Gle ITS Safety Improvements	In Sacramento and Glenn counties on various routes/locations - Install and/or modify signals and signs (6 locations in Sacramento county and 1 location in Glenn county) [CTIPS ID 107-0000-0958]	Completion by 2020	$1,118,000	$1,118,000
CAL20512	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	Sac-50 Roadside Safety Improvement	Near Sacramento on US 50, from Watt Avenue overcrossing to Sacramento/El Dorado county line - Pave narrow areas, install vegetation control and construct roadside signs (PM R5.3/23.1) [EFIS ID 0313000240; CTIPS ID 107-0000-0962] (Toll Credits for PE)	Completion by 2020	$1,651,000	$1,651,000
CAL20471	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	Sacramento Seismic Retrofit on 4 Bridges	In the city of Sacramento, on Sac-160, at Sacramento River Bridge #24-0053 and North Sacramento Undercrossing #24-0111L; also in San Joaquin County, at Mokelumne River Bridge #29-0197R/L - Seismic retrofit (PM 20.9) [CTIPS ID 107-0000-0908] (Toll Credits)	Completion by 2020	$10,463,000	$10,463,000
CAL20507	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 12 Bridge Rehab Near Rio Vista	In Sacramento and Solano counties, near Rio Vista, at Sacramento River Bridge #23-0024 - Clean and repaint steel surfaces (PM 0.0/0.4) [EFIS ID 0313000139; CTIPS ID 107-0000-0961] [Total Project Cost $22,705,000 in 16/17 FY] (Toll Credits for PE)	Completion by 2020	$22,705,000	$22,705,000
CAL20427	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 12 Operational Improvements	SR 12 Roadway Operational and Safety Improvements: Rio Vista to San Joaquin County line. Improvements will be coordinated with San Joaquin and Solano counties and anticipated corridor improvements.	2021-2036	$10,000,000	$12,203,000
CAL20498	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 at Sherman Island Levee Repair	Sacramento County, on SR 160, approximately 6.0 miles south of the City of Rio Vista at Sherman Island - Improve and repair portion of the levee on which SR 160 is located [FCO Only] (Sac-160-L4.1/L4.5) [SHOPP Minor A 201.150] (Toll Credits for CON)	Completion by 2020	$435,000	$435,000
CAL20540	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 in Isleton AC Overlay	On SR 160, in Isleton, from 1.4 miles south of Sherman Island Road to SR 12 - Rehabilitate pavement (PM L4.2/L10.8)[CTIPS ID 107-0000-0993; EFIS ID 0300020595] (Toll Credits for PE, ROW, CON)	Completion by 2020	$6,875,000	$6,875,000
CAL20490	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 Pavement Rehab	In Sacramento County, near Rio Vista, SR 160, from SR 12 to 0.5 mile north of SR 220 in Ryde - Pavement rehabilitation (PM R0.0/12.0) [Toll Credits] (CTIPS ID 107-0000-0933)	Completion by 2020	$8,340,000	$8,340,000
CAL20657	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 Slab replacement	SR 160 from American River Bridge #24-01R/L to Junction SR 51 - Grind PCC pavement	2021-2036	$11,500,000	$14,033,000
CAL20492	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 South of Rio Vista HMA Overlay	In Sacramento County on SR 160, near Rio Vista, from Antioch Bridge (No. 28-0009) to Sherman Island Road - Pavement preservation (PM L1.2/L4.4) [Toll Credits] (CTIPS ID 107-0000-0934)	Completion by 2020	$4,240,000	$4,240,000
CAL20481	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 160 Three Mile Slough Bridge	SR 160, near Isleton, at Three Mile Slough Bridge #24-121 - Paint entire bridge (PM L7.0) (Toll Credits for PE, ROW, CON) [EFIS ID 03-1200-0219]	Completion by 2020	$12,475,000	$12,475,000
CAL20595	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Auxiliary Lane	SR 51 Auxiliary Lane: SB, from Exposition Blvd. to E St. Includes bridge replacements for the following locations: B Street Underpass (#24-0023), A Street Overcrossing (#24-0131) and Elvas Underpass (#24-0031). The project cost includes temporary bridge costs for the B Street and Elvas Underpasses.	2021-2036	$84,200,000	$102,748,000
CAL20597	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Transition Lane	Construct a transition lane on SR 51 SB from Exposition Blvd. slip off-ramp to Exposition Blvd. loop on-ramp.	Completion after 2036	$12,500,000	
CAL20594	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Auxiliary Lane	SR 51: Widen structure over Arden Way to 8 lanes plus 2 bus/carpool lanes and construct a Transition Lane: NB, from SR160 off ramp to Arden Way on ramp	2021-2036	$46,000,000	$56,133,000
	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Bus/Carpool Lanes: Arden to I-80	Bus/Carpool Lanes: Arden to I-80 in both directions	Completion after 2036	$265,000,000	
CAL20632	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Bus/Carpool Lanes: J Street to Arden	Bus/Carpool Lanes: J Street to Arden in both directions	2021-2036	$100,000,000	$156,393,000
CAL20545	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 51 Culvert Repair	In the City of Sacramento on SR 51 (Capital City Freeway), at Arden Way - Repair failed culvert and sinkhole (PM 4.0) [CTIPS ID 107-0000-0998]	Completion by 2020	$925,000	$925,000
CAL20543	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 51 Median Barrier	In Sacramento on SR 51 (Capital City Freeway) at 0.1 mile north of Arden Way undercrossing - Construct concrete median barrier (PM 4.1/4.4) [CTIPS ID 107-0000-0996] (Toll credits for PE, ROW, CON)	Completion by 2020	$2,730,000	$2,730,000
CAL20501	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 NB Transition Lane and Local Roadway Improvements	On SR 51 (Capital City Freeway), close E Street northbound onramp and extend the northbound transition lane from near E Street on-ramp to just south of Elvas Underpass near the American River. Modify intersection at E Street and 30th Street. Also build local roadway improvements on 30th St. (Toll Credits for PA&ED.) $900k STIP for PA&ED [CTIPS ID 107-0000-0940]. PS&E is not yet funded.	2021-2036	$8,300,000	$8,300,000
CAL20592	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Transition Lane	SR 51 Transition Lane: NB, from the Elvas Underpass to Exposition Blvd.	2021-2036	$7,500,000	$11,730,000
CAL20596	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 51 Transition Lanes	SR 51 Transition Lanes: NB from Marconi Ave. to Fulton Ave.and SB from Fulton Ave. to Watt Ave.	2021-2036	$84,700,000	$103,358,000
CAL20513	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 99 Roadside Safety Improvement	In Sacramento on SR 99, from Cosumnes River Bridge to Fruitridge Road overcrossing - Pave narrow areas, install vegetation control, construct pullouts and construct roadside signs (PM 8.5/22.4) [EFIS ID 0313000241; CTIPS ID 107-0000-0965] (Toll Credits for PE)	Completion by 2020	$2,310,000	$2,310,000
CAL20470	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 99 Seismic Retrofit and Bridge Rail Upgrade	Near Elk Grove, at Dillard Road Overcrossing Bridge #24-0163, Cosumnes River Overflow Bridge #24-0021R/L and Cosumnes River Overflow Bridge #24-0020R/L - Bridge seismic retrofit and replace non-standard bridge rail (PM 7.4/8.4) [CTIPS ID 107-0000-0904] (Toll Credits)	Completion by 2020	$19,035,000	$19,035,000
CAL20572	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 99 Auxiliary Lanes	Construct auxiliary lanes in both directions on SR 99 between Laguna/Bond Rd and Elk Grove Boulevard	Completion after 2036	$2,000,000	
CAL20647	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 99 Bus/Carpool Lanes	Bus/Carpool Lanes and auxiliary lanes in both directions from Elk Grove Boulevard to San Joaquin County Line Kammerer Road/Grant Line Road.	Completion after 2036	$36,000,000	
SAC18150	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Metro Air Parkway Interchange at I-5	In Sacramento County, I-5 @ Metro Air Parkway near Sacramento International Airport: Construct the first phase of a five-lane partial clover Type L-9 interchange for Metro Air Parkway at Interstate 5 (I-5). Construct a three lane overcrossing facility with a median, bike lanes and a sidewalk on the west side. Metro Air Parkway will connect on the north of the interchange and terminate south of I-5 with a cul-de-sac. South Bayou Rd will realigned to provide the r/w for partial completion of two-quadrant partial cloverleaf interchange. Project also includes a one-lane northbound I-5 exit ramp and diagonal entrance ramp, one-lane southbound I-5 exit ramp, a two-lane southbound I-5 loop entrance ramp with auxiliary lane, street lighting, striping, signs, relocation of an existing drainage ditch on the south side of the freeway, construction of drainage improvements with the interchange, and relocation of utilities.	Completion by 2020	$19,122,000	$19,122,000
CAL20608	Yes	Sutter	Caltrans D3	G- System Management, Operations, and ITS	SR 99 Operational Improvements	Operational Improvements: Bogue Rd. to Pease Rd.	Completion by 2020	$3,000,000	$3,147,000
CAL20508	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	SR 99/160 Scour Mitigation	In Sacramento County, on SR 99 at Lagoon Creek Bridge #24-0054L (PM 4.9), and on SR 160 (PM 44.5) at American River Bridge #24-0001L - Scour mitigation [EFIS ID 0313000136; CTIPS ID 107-0000-0963] [Total Project Cost $6,915,000 in 17/18 FY]	Completion by 2020	$6,915,000	$6,915,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SUT18830	Yes	Sutter	Sutter County	G- System Management, Operations, and ITS	SR 99 Intersection Improvements	Intersection improvements to add turn lanes, address drainage issues and sound attenuation as needed along both sides of State Route 99 at Bogue Rd, Lincoln Rd, Richland Rd and Franklin Rd.	Completion by 2020	$3,800,000	$3,986,000
CAL20466	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 HOV Lanes - Phase 1	In Sacramento County on I-5, from US 50 to Morrison Creek - Add high-occupancy vehicle (HOV) lanes (i.e., bus/carpool lanes) and soundwalls in both directions (PM 13.1/22.5) [EFIS ID 0312000165]; see 03-3C002 (CAL20467) for Phase 2 [PA&ED being done under 03-3C000 (CAL17840)]. (Toll Credits for PE and ROW) (Emission Benefits in kg/day: 52.9 NOx, 50.4 ROG, 10.5 PM10) [CTIPS ID 107-0000-0880]	2021-2036	$125,200,000	$125,200,000
SAC22530	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Bridging I-5/Riverfront Reconnection	Environmental clearance/PE for Riverfront Reconnection. Construct connection over I-5 between approximately Capitol Ave. to "O" St. (T15998100) Phase 1 constructed under SAC24705	2021-2036	$7,432,709	$7,432,709
CAL20611	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on I-5 between the San Joaquin County Line and SR113	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Placer, Sacramento and Yolo Counties.	2021-2036	$5,000,000	$6,101,000
CAL20613	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on SR99 between the San Joaquin County Line and SR20	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Sacramento and Sutter Counties.	2021-2036	$5,000,000	$6,101,000
CAL20598	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	System Management/Traffic Operations System on SR 51 between U.S. 50 and I-80	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure.	Completion by 2020	$3,000,000	$3,147,000
CAL20574	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	Traveler Information System	110 locations thtoughout Sacramento County. Travel time detection and notification systems.	Completion by 2020	$1,939,200	$2,034,000
CAL20606	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	U.S. 50 / SR 99 / SR 51 Oak Park Interchange Reconstruction	U.S. 50 / SR 99 / SR 51 Oak Park Interchange Reconstruction: includes: bus/carpool lane freeway to freeway connectors.	Completion after 2036	$10,000,000	
CAL20604	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	U.S. 50 Auxiliary Lanes	US 50 Auxiliary Lanes: EB and WB, from Sunrise Blvd. to Zinfandel Dr.	2021-2036	$5,000,000	$7,820,000
CAL20603	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	U.S. 50 Transition Lane	Westbound US 50 Transition Lane: NB, Howe Ave. on-ramp to SB Howe Ave. on-ramp.	Completion after 2036	$3,000,000	
CAL20605	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	U.S. 50 Transition Lane	US 50 Westbound Transition Lane: from Sunrise Blvd. slip off-ramp to Sunrise Blvd. slip on-ramp.	2021-2036	$3,000,000	$4,692,000
CAL20379	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	US 50 Auxiliary Lanes, Bradshaw to Mather	Near Sacramento, from Bradshaw Road OC to Mather Field OC - Add auxiliary lanes EB & WB (PM R7.8/R9.5) [EFIS ID 0300001101]	2021-2036	$3,700,000	$5,787,000
CAL20551	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	US 50 Fiber Optics	In Sacramento, on SR 50, from Yolo County line to 0.2 mile west of Watt Avenue Overcrossing [PM L0.0/R5.1] - Install fiber optic cable [CTIPS ID 107-0000-1005] (Toll credits for PE, ROW, CON)	Completion by 2020	$9,500,000	$9,500,000
CAL18838	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	US 50 HOV Lanes (SR 99 to Watt Ave.)	In Sacramento County, on US 50, from 0.3 mile west of SR 99 to 0.8 mile east of Watt Avenue - Construct high occupancy vehicle (HOV) lanes [PM L2.2/R6.1]	2021-2036	$68,315,000	$68,315,000
CAL20488	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	US 50 Maintenance - Watt Ave. to Sunrise Blvd.	In Sacramento County, US 50, from Watt Ave. to Sunrise Blvd., WB Lanes - Maintenance Asphalt Overlay (Sac-50-5.3/12.8) [HM1 - Pavement Preservation (Fed-Funded)] (Toll credits for CON)	Completion by 2020	$4,556,500	$4,556,500
CAL20484	Yes	Sacramento	Caltrans D3	D- Programs & Planning	US 50 Plantings	Sacramento County, in and near Rancho Cordova, along US 50, from Bradshaw Rd. to Sunrise Blvd.: Improve, enhance and establish planting along designated HOV lane(s) as a continuation of plant establishment period for US 50 HOV Watt Ave. to Sunrise Blvd. project. [03-44161/CAL16790] (PM R07.4/R12.2)	Completion by 2020	$1,250,000	$1,250,000
CAL20549	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	US 50 RTMC Video Display Upgrade	In Rancho Cordova at the Regional Transportation Management Center (RTMC) [PM 12.5] - Replace and upgrade video monitor and the supporting control system for US 50 within Sacramento County. [CTIPS ID 107-0000-1002]	Completion by 2020	$1,820,000	$1,820,000
CAL20648	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	US 50 Transition and Auxiliary Lane	In Sacramento County on US 50, construct an eastbound transition lane from the Folsom Blvd slip off ramp to the Prairie City Rd slip off ramp, and construct an auxiliary lane from the Prairie City Rd slip on ramp to the Folsom Blvd slip off ramp	Completion after 2036	$5,000,000	
CAL20641	Project Development Only	Sacramento	Caltrans D3	B- Road & Highway Capacity	US 50 Transition Lane	US 50 Westbound Transition Lane from Stockton Blvd off-ramp to Rt-51 connector on-ramp. Realign and add acceleration taper to Stockton loop off ramp	Completion after 2036	$6,000,000	
VAR56138	Yes	Sacramento	Caltrans D3, City of Rancho Cordova, Sacramento County	B- Road & Highway Capacity	Auxilary Lane	Auxiliary lane from Rancho Cordova Parkway to East of Folsom	2021-2036	$3,000,000	$4,692,000
CAL20435	Yes	Sacramento	Caltrans Division of Rail	E- Transit Capital (Major)	Sacramento Layover and Maintenance Facility	Building Construction: new layover and servicing facility in Sacramento area for San Joaquin & Capitol Corridor trainsets. Project will be coordinated with Sacramento Station Rail Realignment.	Completion by 2020	$110,000,000	$115,379,000
CAL20559	Yes	Sacramento	Caltrans HQ	E- Transit Capital (Vehicles)	FTA 5310 - Asian Community Center Expansion Minivans	Purchase four minivans to expand the ACC Rides Service that provides transportation to the ACC Rides Service client base of seniors and their caregivers to medical appointments and other activities of daily living. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$192,000	$192,000
CAL20554	Yes	Sacramento	Caltrans HQ	F- Transit O&M (Demand Response)	FTA 5310 - Asian Community Center Rides Service Expansion	Expand the ACC Rides Service hours to 6 AM to 6 PM and the Volunteer Driver Program by recruiting and training more drivers as well as adding a Volunteer Driver Coordinator. The goal of the expansion of the program it to provide additional transportation to the ACC Rides Service client base of seniors and their caregivers to medical appointments and other activities of daily living. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$300,000	$300,000
CAL20557	Yes	Sacramento	Caltrans HQ	E- Transit Capital (Vehicles)	FTA 5310 - Easter Seals Vehicle Replacement	Replace three existing buses and one minivan that provide transportation services to people with development and physical disabilities. Transportation Development Credits/Toll Credits are being used as match, and as allowable under FTA Section 5310 federal funds will fund 100% of this project.. Toll Credits for CON	Completion by 2020	$277,500	$277,500
SAC24992	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rio Del Oro Pkwy	Rio Del Oro Parkway: New 4 lane roadway from Sunrise Boulevard to Rancho Cordova Parkway. Includes intersection improvement at Sunrise (CP09-2070)	2021-2036	$3,251,000	$5,084,000
SAC24920	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Antelope Road Complete Streets - Phase 2	construction; ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$8,448,000	$10,309,000
SAC24921	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Antelope Road Complete Streets - Phase 3	construction; ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$10,500,000	$12,813,000
SAC24922	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Auburn Blvd Complete Streets - Phase 2	construction; ADA, Ped, Bicycle, and Transit Improvements, new street light installations, hardscape, landscape, full road reconstruction.	2021-2036	$9,800,000	$11,959,000
SAC24923	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Auburn Blvd Complete Streets - Phase 3	Design, ROW acquisition and construction; utility undergrounding, ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$32,000,000	$39,049,000
SAC24924	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Auburn Blvd Complete Streets - Phase 4	Design and construction; ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$20,000,000	$31,279,000
SAC24925	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Auburn Blvd Complete Streets - Phase 5	Design, ROW, and construction; utility undergrounding, ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$28,000,000	$43,790,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24732	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Auburn Blvd. Complete Streets - Phase 2 (Rusch Park to Northern City Limits)	Rebuild and revitalize Auburn Blvd. from the northern city limits to as far south as Rusch Park by upgrading infrastructure to support mixed land uses and improving bicycle and pedestrian safety. (Emission Benefits in kg/day: 0.03 ROG, 0.02 NOx, 0.01 PM10)	2021-2036	$17,122,761	$17,122,761
SAC24929	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Fair Oaks Blvd Complete Streets Phase 1	Design and construction; ADA, Pedestrian and Bicycle improvements, LED street light conversion, road resurfacing.	2021-2036	$2,700,000	$3,295,000
SAC24930	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Fair Oaks Blvd Complete Streets Phase 2	Design and construction; ADA and Pedestrian improvements including sidewalk infill, Bicycle improvements, LED street light conversion, road resurfacing.	2021-2036	$3,200,000	$3,905,000
SAC24931	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Fair Oaks Blvd Complete Streets Phase 3	Design and construction; ADA and Pedestrian improvements including sidewalk infill, Bicycle improvements, LED street light conversion, road resurfacing.	2021-2036	$8,500,000	$13,293,000
SAC24919	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Greenback Lane Complete Streets	construction; ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal modifications, full road reconstruction, LED street light conversion.	2021-2036	$4,200,000	$5,125,000
SAC24733	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Mariposa Safe Routes to School Phase 3	Construct one half mile of curb, gutters, sidewalks, bicycle lanes (Class II), curb access ramps and add street lighting along the east side of Mariposa Ave. from Northridge Drive to Eastgate Ave. (Emission Benefits in kg/day: .01 ROG)	Completion by 2020	$1,118,223	$1,118,223
SAC24932	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Oak Avenue Complete Streets Phase 1	Design and construction; ADA and Pedestrian improvements including sidewalk infill, Bicycle improvements, installation of new LED street lights, road resurfacing.	2021-2036	$3,800,000	$4,637,000
SAC24933	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Oak Avenue Complete Streets Phase 2	Design and construction; ADA and Pedestrian improvements including sidewalk infill, Bicycle improvements, installation of new LED street lights, road resurfacing.	2021-2036	$3,500,000	$4,271,000
SAC24927	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Old Auburn Road Complete Streets Phase 1	Design, ROW and construction; ADA, Pedestrian and Bicycle improvements (major sw infill for accessibility), traffic signal upgrades, installation of new LED street lights, full road reconstruction.	2021-2036	$15,000,000	$18,304,000
SAC24928	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Old Auburn Road Complete Streets Phase 2	Design and construction ; ADA, Pedestrian and Bicycle improvements (major sw infill for accessibility), traffic signal upgrades, installation of new LED street lights, full road reconstruction.	2021-2036	$12,000,000	$14,643,000
SAC24926	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	San Juan Ave Complete Streets	Design, ROW and construction; utility undergrounding, ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$22,000,000	$26,846,000
SAC24934	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Saybrook/Misty Creek I-80 Pedestrian/bicycle overpass	Design and construction; ADA compliant Pedestrian and Bicycle bridge/overpass connecting west side at Saybrook with east side at Misty Creek.	2021-2036	$15,000,000	$23,459,000
SAC24917	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Sunrise Blvd Complete Streets - Phase 2	construction; ADA, Pedestrian, Bicycle and Transit Improvements, traffic signal upgrades, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$7,500,000	$9,152,000
SAC24918	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Sunrise Blvd Complete Streets - Phase 3	construction; ADA, Pedestrian, Bicycle and Transit Improvements on east side of road including installation of new sw/c&g, LED street light conversion, full road reconstruction, hardscape and landscape.	2021-2036	$5,002,000	$7,823,000
SAC24496	Yes	Sacramento	City of Citrus Heights	C- Maintenance & Rehabilitation	Sunrise Blvd. Complete Streets	Sunrise Blvd., from Antelope Rd to North City Limits: rehabilitate road, infill sidewalks, enhance bike lanes, and other upgrades. (Emission Benefits in kg/day: 1.01 ROG, 0.77 NOx, 0.41 PM10)	Completion by 2020	$3,651,998	$3,651,998
SAC24708	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Sunrise Blvd. Safety Improvements	On Sunrise Blvd between Woodmore Oaks Dr and Sayonara Dr: Pavement overlay; Construct curb ramp, sidewalk, curb, gutter, drain inlet; Install lighting, traffic signals (interconnect), storm drain, striping, and pavement markings (HSIP6-03-001)	Completion by 2020	$934,222	$934,222
SAC24611	Yes	Sacramento	City of Citrus Heights	A- Bike & Ped	Sunrise Blvd./Sungarden Dr. Safety Improvements	At Sunrise Blvd. and Sungarden Dr.: Install traffic signals and sidewalks. HSIP4-03-003	Completion by 2020	$1,113,900	$1,113,900
SAC24094	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Kammerer Rd Extension	Construct new 4 lane Kammerer Rd extension from Bruceville Rd to I-5 (at Hood Franklin Rd), modifying the I-5/Hood Franklin interchange, and construction of a railroad grade separation at UP railroad tracks. (Toll Credits for PA&ED, 11.47% of $1,164,000) Environmental Studies (NEPA and CEQA) also include the following scope, planned in the MTP/SCS for SAC24114, Kammerer Road Extension: In Elk Grove, from approximately 6000' west of SR 99 to Bruceville Road: Widen from 2 to 4 lanes.	Completion by 2020	$37,581,000	$37,581,000
SAC24118	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Grant Line Road Widening (Capital Southeast Connector - Segment B1)	In Elk Grove, from East Stockton Blvd to Waterman Road: Widen Grant Line Road from 2 to 4 lanes, including grade separation over the UP Railroad Tracks.	Completion by 2020	$31,978,000	$31,978,000
SAC24114	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Kammerer Road Widening	In Elk Grove, from approximately 6000' west of SR 99 to Bruceville Road: Widen from 2 to 4 lanes. This Project is included in the Environmental Studies (NEPA and CEQA) for SAC24094, Kammerer Road Extension.	Completion by 2020	$18,862,000	$18,862,000
SAC24795	Yes	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Grant Line Two-Way-Left -Turn-Lane	Widen Grant Line Road, between Bond Road and Calvine Road, to provide a two-way left turn lane.	Completion by 2020	$12,200,000	$12,797,000
SAC24700	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Grant Line Road Widening Phase 3 (Capital SouthEast Connector - Segment B2	In Elk Grove, Grant Line Road; from Mosher Road to Bradshaw: Widen from 2 to 4 lanes and preserve right of way for 6 lanes.	2021-2036	$12,021,000	$12,021,000
SAC24983	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Big Horn Blvd.	Widen to 4-lanes	2021-2036	$12,000,000	$18,767,000
SAC24072	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw / Sheldon Intersection & Bridge	In Elk Grove, at the intersection of Bradshaw and Sheldon Roads, over east branch of Laguna Creek: Intersection improvements. Replace and widen existing 2 lane bridge spanning East Branch of Laguna Creek with a 4 lane bridge.	Completion by 2020	$10,388,000	$10,388,000
SAC24987	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Lotz Parkway	In Elk Grove, Lotz Pkwy. from Whitelock Pkwy to Kammerer Rd: widen to 4-lanes	2021-2036	$10,000,000	$15,639,000
CAL20370	Yes	Sacramento	City of Elk Grove	E- Transit Capital (Major)	Elk Grove Intercity Rail Station	In Elk Grove, San Joaquin Rail Corridor, construct 100-space parking lot, 800 foot platform, and passenger shelter area for intercity passenger rail station.	2021-2036	$8,500,000	$8,500,000
SAC24961	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Wilton Rd	Full 2 lane improvements from Grant Line Rd. to City Limit	2021-2036	$7,789,900	$12,183,000
SAC24169	Yes	Sacramento	City of Elk Grove	A- Bike & Ped	Old Town Elk Grove Improvement Project Phase 2	Elk Grove Boulevard, from School St. to Waterman Rd.: street frontage improvements, including: expanded decorative sidewalks & landscape strips, corner bulb-outs,landscaped median islands at intersections/pedestrian crossings, crosswalks, bike lanes/routes, signs and striping, bus shelters, related frontage improvement features and potential utility undergrounding.	Completion by 2020	$6,377,000	$6,377,000
SAC24073	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Rd.	Widen: 4 lanes from Sheldon Rd. to Calvine Rd.	2021-2036	$6,200,200	$9,697,000
SAC24111	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Lotz Parkway	In Elk Grove, Lotz Parkway from Whitelock Parkway to Poppy Ridge Road: Construct new 4-lane roadway; and Lotz Parkway from Poppy Ridge Road to 0.5 miles south of Whitelock Pkwy at the northern boundary of the Sterling Meadows development area: Construct new 2-lane roadway.	Completion by 2020	$6,162,500	$6,162,500
SAC24119	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Grant Line Road Widening Phase 2 (Capital Southeast Connector - Segment B2)	In Elk Grove, Grant Line Road; from New Waterman Road to Mosher Road: Widen from 2 to 4 lanes and preserve right of way for 6 lanes; design and clear environmental from New Waterman to Bradshaw. Part of Capital Southeast Connector - Segment B2.	Completion by 2020	$6,152,000	$6,152,000
SAC24982	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Big Horn Blvd.	In Elk Grove, Big Horn Blvd. from Bilby Rd. to Kammerer Rd.: Construct new 2-lane roadway	2021-2036	$5,669,500	$8,867,000
SAC24775	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Lotz Parkway	In Elk Grove, Lotz Pkwy. from Bilby Rd to Kammerer Rd: Construct new 2-lane roadway	Completion by 2020	$5,649,500	$5,649,500
SAC24952	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Excelsior Rd	Full 2 lane Improvement from Sheldon Rd. to Calvine Rd.	2021-2036	$5,000,000	$7,820,000
SAC24097	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Waterman Rd.	Widen: 4 lanes from Elk Grove Blvd. to Bond Rd.	2021-2036	$4,800,000	$5,857,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24418	**Yes**	Sacramento	City of Elk Grove	E- Transit Capital (Vehicles)	Replacement CNG Buses for E-Tran Including Automatic Passenger Counters	Purchase eight CNG replacement buses for the City of Elk Grove's E-Tran bus transit buses. The CNG buses replace six CNG buses that are beyond their useful life and adds two buses as spares because the current spare ratio is below 15%. Includes automatic passenger counters for buses. Emission Benefits in kg/day: (0.16 NOx, 0.01 PM10). The FTA 5307 funds are comprised of the following amounts: 6 Buses $1,249,705; 2 Buses $864,000; Automatic Passenger Counters $186,088	Completion by 2020	$4,174,576	$4,174,576
~~SAC24774~~	~~**Yes**~~	~~Sacramento~~	~~City of Elk Grove~~	~~B- Road & Highway Capacity~~	~~Lotz Pkwy. Extension - 0.5 miles south of Whitelock Pkwy (Sterling Meadows) to Bilby Road~~	~~In Elk Grove, Lotz Parkway from 0.5 miles south of Whitelock Pkwy (Sterling Meadows) to Bilby Road: Construct new 2-lane roadway~~	~~2021-2036~~	~~$3,962,000~~	~~$6,196,000~~
SAC19010	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bruceville Road Widening	In Elk Grove, from Whitelock Parkway to Bilby Road: Widen from 2 to 4 lanes.	2021-2036	$3,719,000	$5,816,000
SAC24110	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Lotz Parkway	In Elk Grove, from Laguna Springs Drive to Whitelock Parkway: Construct new 2 lane roadway.	Completion by 2020	$3,700,000	$3,700,000
SAC24551	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bilby Rd.	Construct New Road: 2 lanes from Bruceville Rd. to McMillan Rd./Future Big Horn Blvd. extension (parallel to Kammerer).	2021-2036	$3,500,000	$4,271,000
SAC24984	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bilby Rd.	Widen to 4-lanes	2021-2036	$3,500,000	$5,474,000
SAC24985	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bilby Rd.	Widen to 4-lanes	2021-2036	$3,500,000	$5,474,000
SAC24980	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Lotz Parkway	In Elk Grove, from Laguna Springs Drive to Whitelock Parkway: widen to 4-lanes.	2021-2036	$3,500,000	$5,474,000
SAC24972	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bilby Rd.	Construct New Road: 4 lanes from McMillan Rd./Future Big Horn Blvd. extension to Lotz Pkwy.	2021-2036	$3,495,600	$4,266,000
SAC24790	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bilby Rd.	Construct New Road: 4 lanes from Lotz Pkwy. To West Stockton Blvd.	2021-2036	$3,484,150	$5,449,000
SAC24720	**Yes**	Sacramento	City of Elk Grove	C- Maintenance & Rehabilitation	Waterman Road Complete Streets Reconstruction	Waterman Rd., from Bond Rd. to Sheldon Rd.: pavement reconstruction with bicycle and pedestrian path improvements.	Completion by 2020	$3,275,726	$3,275,726
SAC24695	**Yes**	Sacramento	City of Elk Grove	F- Transit O&M (Bus)	Elk Grove Operating Assistance	Operating assistance for transit services within the City of Elk Grove as well as commuter service to / from Sacramento. Sacramento Urbanized Area.FFY 2013 operating assistance: $98,063 (MAP-21)FFY 2014 operating assistance: $882,559 (MAP-21)	Completion by 2020	$3,222,460	$3,222,460
SAC24099	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Big Horn Blvd.	In Elk Grove, Big Horn Blvd. from Whitelock Pkwy to Spoonwood Dr.: Construct new 2-lane roadway	Completion by 2020	$3,212,000	$3,212,000
SAC24798	**Yes**	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Sheldon/Waterman Rd. Intersection Improvements	In Elk Grove; Construct a roundabout intersection at Sheldon Rd. and Waterman Rd.	Completion by 2020	$2,800,000	$2,937,000
SAC24706	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	ITS Master Plan - Phase 4 Implementation	In Elk Grove, at intersections along Elk Grove-Florin Road, Big Horn Blvd., Franklin Blvd, Bruceville Rd., West Stockton Blvd, Elk Grove Blvd., and Grant Line Rd.: Install new traffic signal controllers and interconnect cable. Provide integration of the new signal controllers into the City's existing Transportation Management Center. Closed circuit television cameras will be installed at key intersections to help monitor, coordinate, and maintain traffic flow. (Emission Benefits in kg/day: 0.36 ROG, 0.24 NOx, 0.01 PM 2.5.)	Completion by 2020	$2,693,975	$2,693,975
SAC24312	**Yes**	Sacramento	City of Elk Grove	E- Transit Capital (Minor)	Intelligent Transportation Systems	Transit Capital/Operations: Purchase fareboxes that integrate with other transit operators. Purchase software and hardware for an automated dispatch, vehicle locator system and other intelligent transportation systems.	2021-2036	$2,400,000	$2,929,000
SAC24981	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Big Horn Blvd.	In Elk Grove, Big Horn Blvd. from Spoonwood Dr. to Bilby Rd.: Construct new 2-lane roadway	2021-2036	$2,362,407	$3,695,000
SAC24773	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Big Horn Blvd. Extension - Bilby to Kammerer	Construct extension of Big Horn Blvd. (4-lanes) from Bilby Rd. to Kammerer Rd.	Completion by 2020	$2,283,000	$2,283,000
SAC24105	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bruceville Road Widening	In Elk Grove, Bruceville Road from Bilby Road to Kammerer Road: Widen from 2 to 4 lanes.	2021-2036	$2,200,000	$3,441,000
SAC24699	**Yes**	Sacramento	City of Elk Grove	A- Bike & Ped	Laguna Creek Trail - Camden South Spur	Construct trail segment from Bond Road to Camden Park/Lake and the existing Laguna Creek Trail. Includes a trail crossing and weir over Laguna Creek at Camden Lake. (Emission Benefits in kg/day:)	Completion by 2020	$2,097,026	$2,097,026
SAC24759	**Yes**	Sacramento	City of Elk Grove	A- Bike & Ped	Lower Laguna Creek Open Space Preserve Trail	In Elk Grove: across the Lower Laguna Creek Open Space Preserve from Elk Spring Way to Laguna Creek near Fieldale Dr.; Construct Class I Bikeway/multi-use trail and 60,000 square foot educational area with 8' wide decomposed granite paths and interpretive sign stations.	Completion by 2020	$1,778,000	$1,778,000
SAC24735	**Yes**	Sacramento	City of Elk Grove	E- Transit Capital (Vehicles)	40' Bus Replacements	Replace three 40' bluebird buses operated since 2000 with three new CNG 40' buses. (Emission Benefits in kg/day: 1.3 NOx, 0.03 PM10)	Completion by 2020	$1,605,000	$1,605,000
SAC24960	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	West Stockton Blvd	On West Stockton north of Promenade to Whitelock Pkwy, construct full 2 lane improvements and realign road to intersect with Lotz Pkwy south of Whitelock. Rename to Promenade.	2021-2036	$1,583,039	$2,476,000
SAC24966	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Elk Grove Blvd	Right Turn pocket from EB Elk Grove Blvd to SB SR99	2021-2036	$875,000	$1,368,000
SAC24696	**Yes**	Sacramento	City of Elk Grove	E- Transit Capital (Vehicles)	Bus Rehab	Rehabilitate ten (10) Orion V transit buses with new CNG tanks, engine and transmission, and other improvements as needed.	Completion by 2020	$859,683	$859,683
SAC20510	**Yes**	Sacramento	City of Elk Grove	D- Programs & Planning	Grant Line Road	In Sacramento County, Grant Line Road from Bond Road to Calvine Road: alignment study.	Completion by 2020	$800,000	$1,251,000
SAC24640	**Yes**	Sacramento	City of Elk Grove	A- Bike & Ped	Laguna Creek Trail - Camden North Spur	This project is a combination class I bike trail and class II bike lane project, connecting Camden neighborhoods to existing and future trails in Elk Grove. (Emission Benefits in kg/day: 0.14 ROG, 0.12 NOx, 0.03 PM10) (Toll credits for CON)	Completion by 2020	$791,000	$791,000
CAL20589	**Yes**	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Connector Ramp Extension	I-5: Extend Southbound connector ramp from U.S. 50 connector-ramp to the Sutterville Rd. off-ramp (PM 20.726 to 21.55).	2021-2036	$4,746,000	$5,791,000
SAC20320	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Whitelock Parkway Widening	In Elk Grove, from Big Horn Blvd to West Stockton Blvd: Widen to 4 lane roadway.	2021-2036	$520,280	$814,000
SAC24631	**Yes**	Sacramento	City of Elk Grove	A- Bike & Ped	Elk Grove Schools AWARE SRTS Program	Multiple Schools in the Elk Grove Unified School District: Implement Project AWARE (Advancing Walk and Roll Environments); needs assessment for each school/community through parent surveys and walk audits; hire a full-time SRTS Coordinator to train staff and parents. SRTS3-03-004	Completion by 2020	$472,837	$472,837
SAC24096	**Yes**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Waterman Road	Widen Waterman Road from Sheldon Road to Bond Road from 2 to 4 lanes.	2021-2036	$357,540	$559,000
SAC24792	**Yes**	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Bruceville Rd. and Poppy Ridge/Quail Run Intersection	Install a trafic signal at the Bruceville Rd. and Poppy Ridge/Quail Run intersection.	Completion by 2020	$338,100	$355,000
SAC24685	**Yes**	Sacramento	City of Elk Grove	C- Maintenance & Rehabilitation	Elk Grove Bridge Preventive Maintenance Program	Various bridges in the City of Elk Grove: perform preventive maintenance. See Caltrans Local Assistance HBP website for backup list of projects: http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/HBP_MPO.html#SACOG	Completion by 2020	$330,000	$330,000
SAC24791	**Yes**	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Bond Rd./Bader Rd. Intersection	Install a trafic signal at the Bond Rd./Bader Rd. intersection	Completion by 2020	$295,000	$309,000
SAC24675	**Yes**	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Signal Upgrades	Franklin Blvd. between Elk Grove Blvd. and Big Horn Blvd.; Bruceville Rd. between Elk Grove Blvd. and Big Horn Blvd.: Upgrade traffic signals. (HSIP5-03-005)	Completion by 2020	$150,000	$150,000
SAC24709	**Yes**	Sacramento	City of Elk Grove	G- System Management, Operations, and ITS	Shoulder Safety Improvements - Various Locations	Various locations on Grant Line Rd, Bradshaw Rd., Kammerer Rd., and Waterman Rd.: Modify shoulders. (HSIP6-03-002)	Completion by 2020	$130,000	$130,000
VAR56132	**Project Development Only**	Multiple Counties	Capital SouthEast Connector JPA, City of Elk Grove, Rancho Cordova, Folsom, Sacarmento County, El Dorado County	B- Road & Highway Capacity	Capital SouthEast Connector- Phase 2	Capital SouthEast Connector Phase 2 will include adding HOV lanes as needed and constructing interchanges at various locations.	Completion after 2036	$209,300,000	
SAC24955	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Willard Parkway	Center Lanes & Widen Median from South Bilby Rd. to New Kammerer Rd.	Completion after 2036	$26,187,200	
SAC20340	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Willard Parkway Extension	In Elk Grove, Willard Parkway from Bilby Road to Kammerer Road, construct new four lane roadway.	Completion after 2036	$15,000,000	

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24084	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Calvine Road	Widen Calvine Road from Vineyard Road to Grant Line Road from 2 to 4 lanes	Completion after 2036	$14,000,000	
SAC24086	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Elk Grove-Florin Road	Widen Elk Grove-Florin Road from 4 to 6 lanes from Calvine Road to Bond Road	Completion after 2036	$7,900,000	
SAC19160	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Sheldon Road Widening	Widen Sheldon Road from Elk Grove-Florin Road to Waterman Road: widen from 2 to 4 lanes.	Completion after 2036	$7,651,500	
SAC24112	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Waterman Road	In Elk Grove, from Elk Grove Blvd to Grant Line Road: Widen from 2 to 4 lanes.	Completion after 2036	$7,500,000	
SAC24098	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Whitelock Pkwy./SR99 Interchange	Construct New Interchange: Hwy 99 / Whitelock Pkwy, including pedestrian bridge over SR99	Completion after 2036	$4,000,000	
SAC24095	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Waterman Road	Widen Waterman Road from Calvine Road to Sheldon Road: Widen from 2 to 4 lanes	Completion after 2036	$3,000,000	
SAC24951	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Elk Grove Blvd	Center 2 lanes & median; Frontage imp. Allowance from Bradshaw Rd. to Grant Line Rd.	Completion after 2036	$2,661,500	
SAC24954	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Willard Parkway	Widen from 4 to 6 lanes from Whitelock Pkwy. to South Bilby Rd.	Completion after 2036	$1,854,100	
SAC24081	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bruceville Rd.	Widen: 6 lanes from Whitelock Pkwy. to Bilby Rd.	Completion after 2036	$1,845,900	
SAC24949	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bruceville Rd.	Widen from 4 to 6 lanes from Elk Grove Blvd. to Whitelock Parkway	Completion after 2036	$1,683,600	
SAC24103	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Road Widening	In Elk Grove, from Grant Line Road to Bond Road, widen from 2 to 4 lanes.	Completion after 2036	$1,043,550	
SAC24788	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Hi Bus from I-5 to Bradshaw Rd	Develop an East-West enhanced bus corridor in Elk Grove along Elk Grove Blvd. from I-5 to Bradshaw Road.	Completion after 2036	$1,000,000	
SAC24963	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	State Route 99 Auxillary Lanes	Northbound Auxilary Lane on SR99 from Northbound On Ramp to SR99	Completion after 2036	$724,600	
SAC24102	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Road Widening	In Elk Grove, between Bond Road and Sheldon Road: Widen from 2 to 4 lanes.	Completion after 2036	$696,120	
SAC24101	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bond Road Widening	In Elk Grove, between Bradshaw Road and Grant Line Road: Widen from 2 to 4 lanes.	Completion after 2036	$648,170	
SAC24076	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Rd.	Widen: 4 to 6 lanes from Grant Line Rd. to Bond Rd.	Completion after 2036	$620,000	
SAC24120	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Sheldon Road Widening	In Elk Grove, from Waterman Road to Bradshaw Road: Widen from 2 to 4 lanes.	Completion after 2036	$572,930	
SAC24074	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Rd.	Widen: 4 to 6 lanes from Sheldon Rd. to Calvine Rd.	Completion after 2036	$380,000	
SAC24088	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Willard Pkwy.	Widen: 6 lanes from Bilby Rd. to Kammerer Rd.	Completion after 2036	$370,800	
SAC24075	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bradshaw Rd.	Widen: 4 to 6 lanes from Bond Rd. to Sheldon Rd.	Completion after 2036	$370,000	
SAC24082	**Project Development Only**	Sacramento	City of Elk Grove	B- Road & Highway Capacity	Bruceville Rd.	Widen: 6 lanes from Bilby Rd. to Kammerer Rd.	Completion after 2036	$83,420	
SAC22060	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	East Natoma Street Widening	In Folsom, East Natoma St from Fargo Way to Folsom Lake Crossing: widen from 2 to 4 lanes and construct bicycle trail undercrossing.	2021-2036	$3,150,000	$3,844,000
SAC24331	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Easton Valley Pkwy.	Construct New Road: 4 lanes from Prairie City Rd. to Empire Ranch Rd. Extension south of U.S. 50.	2021-2036	$45,000,000	$54,913,000
SAC24327	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Empire Ranch Rd.	Road Extension: 4 lanes from U.S. 50 to White Rock Rd.	2021-2036	$18,000,000	$28,151,000
SAC24616	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Empire Ranch Road Interchange Bikeway Connection Project	Project includes the construction of a Class I bikeway adjacent to Empire Ranch Road and Highway 50 from Saratoga Road in El Dorado Hills to Iron Point Road. (Toll Credits for PE, ROW, CON.)	Completion by 2020	$1,440,000	$1,440,000
SAC24400	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Folsom Blvd. Bike/Ped Overcrossing	In Folsom, at Folsom Blvd. and Humbug-Willow Creek Parkway, construct a bicycle and pedestrian overcrossing of Folsom Blvd. Includes connections to existing trails on both sides of Folsom Blvd.	Completion by 2020	$2,500,000	$2,622,000
SAC24686	**Yes**	Sacramento	City of Folsom	C- Maintenance & Rehabilitation	Folsom Bridge Preventive Maintenance Program	Various bridges in the City of Folsom: perform preventive maintenance. See Caltrans Local Assistance HBP website for backup list of projects. http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/HBP_MPO.html#SACOG	Completion by 2020	$1,110,000	$1,110,000
SAC24399	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Folsom Lake Bicycle/Pedestrian Trail & Overcrossing	In Folsom, along the Folsom Lake Trail corridor from the main Folsom Prison Road to the existing trail along Folsom Lake Crossing Road. Project includes the construction of approximately 1 mile of Class I Bike Trail, including a bike/pedestrian overcrossing at Folsom Dam Road. (Other State funds are State EEM and BTA Grant funds.) (Emission Benefits: 0.1 kg/day ROG)	Completion by 2020	$4,610,650	$4,610,650
SAC24324	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Folsom Lake Trail	In Folsom, along the Folsom Lake Trail corridor from the Folsom Lake Crossing Bike/Pedestrian overcrossing to Green Valley Road, construct approx 2-miles of class 1 bike trail.	Completion by 2020	$2,500,000	$2,622,000
SAC24542	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Folsom Plan Area Street A	Construct New Road: 4 lanes, East-West arterial for SOI development.	2021-2036	$11,500,000	$14,033,000
SAC22930	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Folsom-Auburn Rd.	Add Turn Lanes: Folsom-Auburn Rd. / Oak Ave. Includes: left and right turn lanes and intersection signal modifications.	Completion by 2020	$2,000,000	$2,098,000
SAC21280	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Green Valley Road Widening	On Green Valley Road, from East Natoma Street to Sophia Parkway: widen from 2 lanes to 4 lanes and provide Class II bicycle paths. (Toll Credits for PE and CON.)	Completion by 2020	$3,600,000	$3,600,000
SAC24506	**Yes**	Sacramento	City of Folsom	C- Maintenance & Rehabilitation	Greenback Lane Bridge Rehabilitation	Greenback Lane, over the American River, 0.2 miles east of Folsom-Auburn Rd.: Structural rehabilitation of the 2 lane bridge.	Completion by 2020	$8,644,000	$9,067,000
SAC22920	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Greenback Ln. and Folsom-Auburn Rd.	Add Turn Lanes: left and right turn lanes at Folsom-Auburn Rd. and Greenback Ln. Includes: signal inprovements.	2021-2036	$1,200,000	$1,464,000
SAC20220	**Yes**	Sacramento	City of Folsom	G- System Management, Operations, and ITS	Historic District Parking	Provide parking within the Folsom Historic District bounded by Leidesdorff Street, Sutter Street, Riley Street, and Folsom Boulevard.	Completion by 2020	$555,000	$555,000
SAC24483	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Historic Powerhouse/Folsom Lake Regional Trail	In Folsom, construct class I bike/ped trail from existing terminus of the Historic Powerhouse Trail near the Historic Truss Bridge to the soon to be constructed bike/ped overcrossing at the new Folsom Lake Crossing Rd. Also construct class I trail connection from the main trail to the Folsom State Prison employee entrance. (Emission Benefits in kg/day: 0.03 ROG, 0.02 NOx, 0.01 PM10)	Completion by 2020	$3,428,000	$3,428,000
SAC24692	**Yes**	Sacramento	City of Folsom	A- Bike & Ped	Humbug-Willow Creek Trail/Lake Natoma Trail Connection	Approximately 1,000 linear feet south of the intersection of Blue Ravine Road and Folsom Blvd. to the intersection with the existing Lake Natoma Trail: Construct approximtely 2,200 linear feet of Class I trail connecting the Humbug-Willow Creek (HBWC) Trail with the Lake Natoma Trail.	Completion by 2020	$344,000	$344,000
SAC21210	**Yes**	Sacramento	City of Folsom	B- Road & Highway Capacity	Iron Point Rd.	Widen: 6 lanes from Black Diamond Dr. to Prairie City and Outcropping to Broadstone Pkwy.	2021-2036	$5,000,000	$7,820,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24641	Yes	Sacramento	City of Folsom	A- Bike & Ped	Lake Natoma Trail – Gap Closure	City of Folsom, From the terminus of the class I trail from behind the Lake Natoma Inn to the Scott Street/Riley Street Intersection: Construct upgrades to the existing Scott St./Riley St. at-grade signalized intersection. Extend a class I trail (cycle-track) along a portion of Leidesdorf St. from Gold Lakes Dr. to just past the driveway entrance to the Lake Natoma Inn. Also make minor pavement striping improvements along Gold Lakes Dr. to connect the class I trail from the Lake Natoma Crossing Bridge to Leidesdorf St. (Emission Benefits in kg/day: 0.01 ROG, 0.01 NOx)	Completion by 2020	$1,510,000	$1,510,000
SAC24697	Yes	Sacramento	City of Folsom	A- Bike & Ped	Lake Natoma Waterfront Trail Access	Construction of approximatly 2,000 linear feet of trail along the shoreline of Lake Natoma with fully accessible access from the Folsom Historic District to the shoreline of Lake Natoma.	Completion by 2020	$1,282,800	$1,282,800
SAC22280	Project Development Only	Sacramento	City of Folsom	B- Road & Highway Capacity	Oak Ave. Pkwy.	Widen: 4 lanes from Folsom-Auburn Rd. to Baldwin Dam Rd. with Class I trail and ped facilities	Completion after 2036	$3,000,000	
SAC24543	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	Oak Ave. Pkwy.	Construct new road: 4 lanes from U.S. 50 to White Rock Rd.	2021-2036	$14,400,000	$22,521,000
SAC24761	Yes	Sacramento	City of Folsom	A- Bike & Ped	Oak Parkway Trail Undercrossing and Johnny Cash Trail Connection	Oak Parkway Trail at Natoma Street: Between the Oak Parkway Trail and Johnny Cash Trail: Construct a bike trail undercrossing.	Completion by 2020	$1,121,000	$1,121,000
SAC24515	Yes	Sacramento	City of Folsom	C- Maintenance & Rehabilitation	Orangevale Ave Bridge Replacement	Orangevale Ave over Gold Creek, 0.1 mile west of American River Canyon: Replace 1 lane bridge with new 2 lane bridge. Does not qualify for lump sum programming.	Completion by 2020	$2,500,000	$2,500,000
SAC24328	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	Scott Road Widening	Widen existing Scott Road from 2 to 4 lanes between US 50 and White Rock Road	2021-2036	$16,000,000	$19,524,000
SAC21270	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	Sibley Street	In Folsom, Sibley Street from Glenn Drive to Blue Ravine Road: widen from 2 to 4 lanes.	Completion by 2020	$1,800,000	$1,800,000
SAC19890	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 at Empire Ranch Road	US 50 at Empire Ranch Road: Construct 4 lane interchange with US 50 at Empire Ranch Road (formerly Russell Ranch Road). HPP #337	2021-2036	$37,652,000	$58,885,000
SAC24969	Project Development Only	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 at Oak Avenue Parkway	Construct New Interchange: 4 lanes at US 50 at Oak Avenue Parkway	Completion after 2036	$50,500,000	
SAC24463	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 at Scott Road	Ramp modifications and overpass widening for US 50/East Bidwell/Scott Road Interchange to improve access to development south of US 50.	2021-2036	$3,180,000	$3,880,000
SAC24888	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 Auxilary Lane Prairie City to Oak Avenue	EB Auxiliary lane from Prairie City Road to Oak Avenue	2021-2036	$3,000,000	$4,692,000
SAC24891	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 Auxiliary Lane Empire Ranch to Latrobe Road	EB Auxiliary lane from Empire Ranch to Latrobe Road	2021-2036	$3,000,000	$4,692,000
SAC24889	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 Auxiliary Lane Oak Avenue to Scott Road	EB Auxiliary lane from Oak Avenue to Scott Road	2021-2036	$3,000,000	$4,692,000
SAC24890	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US 50 Auxiliary Lane Scott Road to Empire Ranch	EB Auxiliary lane from Scott Road to Empire Ranch	2021-2036	$3,000,000	$4,692,000
SAC24970	Yes	Sacramento	City of Folsom	B- Road & Highway Capacity	US50 Rowberry Overcrossing	Construct New Overcrossing: 4 lanes between Iron Point Road and Easton Valley Parkway over US50	2021-2036	$3,000,000	$4,692,000
SAC24737	Yes	Sacramento	City of Folsom	D- Programs & Planning	West Leidesdorff St. Master Plan	On West Leidesdorff St., develop land use plan after City Corp Yard relocation.	Completion by 2020	$110,000	$110,000
SAC24642	Yes	Sacramento	City of Galt	A- Bike & Ped	C St./Central Galt Complete Streets	Complete street improvements on 4th Street and C Street in Historic Old Town and Downtown; Improvements consist of enhanced pedestrian, landscaping and drainage improvements.	Completion by 2020	$2,551,600	$2,551,600
SAC24337	Yes	Sacramento	City of Galt	B- Road & Highway Capacity	Carillion Extension	new 4 lane road from Simmerhorn to A Street / Boessow	2021-2036	$2,500,000	$3,910,000
SAC24341	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Highway 99 / Ayers Ln.	On/Off Ramp Improvement: widen 1,280 linear feet of Hwy. 99 on/off ramps at Ayers Lane.	Completion after 2036	$500,000	
SAC24770	Yes	Sacramento	City of Galt	C- Maintenance & Rehabilitation	Lincoln Wy. Rehab	Lincoln Wy. from Elm Ave. to Meladee Ln.: Rehabilitate pavement. (PE programmed separately on SAC24767)	Completion by 2020	$400,000	$400,000
SAC24829	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Marengo Extension	new 4 lane road (Simmerhorn to A Street @ Crystal)	Completion after 2036	$2,500,000	
SAC24830	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Mingo I/C	new interchange at Mingo Road on / off ramps	Completion after 2036	$20,000,000	
SAC24831	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	New Road	New 4 Lane Road (Mingo I/C to Twin Cities @ Carillion)	Completion after 2036	$15,300,000	
SAC24832	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	New Road	New 4 Lane Road (Mingo I/C to Twin Cities [west sr99])	Completion after 2036	$8,500,000	
SAC24671	Yes	Sacramento	City of Galt	F- Transit O&M (Bus)	Operating Assistance 2015-2016	Operating assistance for transit services within the City of Galt. Urban area under 50,000 population.FFY 2015: $100,000FFY 2016: $100,000	Completion by 2020	$300,000	$300,000
SAC24165	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Simmerhorn Road Overcrossing Replacement	In Galt: Simmerhorn Road overcrossing of SR 99; Construct realigned overcrossing.	Completion after 2036	$4,450,000	
SAC24767	Yes	Sacramento	City of Galt	A- Bike & Ped	South Galt SRTS and Rehab	Lincoln Wy. from Elm Ave. to Meladee Ln.: Do PE work, but no CON. (CON is programmed separately on SAC24770). A St from Central Galt Interchange to City Limits: Rehabilitate pavement. On 2nd Street between D St. and F. St.: Install infill concrete sidewalks, curb, gutter, and ADA improvements. Greer Elementary, Valley Oaks Elementary and Galt High School: pedestrian, bicycle and ADA improvements. (Toll Credits for CON of the RSTP and ATP components)	Completion by 2020	$3,560,000	$3,560,000
SAC24833	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities	widening 2 to 4 lanes (Carillion to Cherokee)	Completion after 2036	$10,000,000	
SAC24834	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities	widening 4 to 6 lanes (Carillion to Marengo)	Completion after 2036	$5,000,000	
SAC24835	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities	widening 2 to 4 lanes (Fermoy to Carillion)	Completion after 2036	$3,000,000	
SAC24836	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities	widening 4 to 6 lanes (Fermoy to Carillion)	Completion after 2036	$2,000,000	
SAC24837	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities I/C	new interchange at Twin Cities Road	Completion after 2036	$15,300,000	
SAC20590	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Twin Cities Rd.	Twin Cities Rd. Interchange on Hwy. 99: widen 4 lanes. Includes: bicycle lanes.	Completion after 2036	$5,105,100	
SAC24288	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Walnut Ave. / Highway 99	Construct New Interchange: Project Development for eventual Hwy 99 / Walnut Ave. Includes full access freeway interchange and overcrossing.	Completion after 2036	$3,649,000	
SAC24838	Project Development Only	Sacramento	City of Galt	B- Road & Highway Capacity	Walnut I/C	new interchange at Walnut Avenue on / off ramps	Completion after 2036	$25,200,000	
SAC24739	Yes	Sacramento	City of Galt	A- Bike & Ped	Westside Bike Lanes/Routes	West of the Union Pacific railroad tracks and south of West Elm St., on various streets, install class II and class III bicycle routes.	Completion by 2020	$302,270	$302,270
SAC24740	Yes	Sacramento	City of Isleton	D- Programs & Planning	General Plan and Housing Element Updates	Update the City of Isleton's 2000 General Plan and incomplete 2006 Housing Element	Completion by 2020	$110,000	$110,000
SAC24946	Yes	Sacramento	City of Isleton	C- Maintenance & Rehabilitation	Historic District Parking lot paving and landscaping	Pave existing parking lot, add shade trees, landscaping and parking lot lighting	Completion by 2020	$125,000	$131,000
SAC24945	Yes	Sacramento	City of Isleton	A- Bike & Ped	Main Street Landscaping & Beautification	Street Trees, curb-gutter & sidewalk repairs	Completion by 2020	$180,000	$189,000
SAC24947	Yes	Sacramento	City of Isleton	G- System Management, Operations, and ITS	Main Street Solar street lights	Install Solar Powered Street Lights as part of City's Green Program	Completion by 2020	$150,000	$157,000
SAC24944	Yes	Sacramento	City of Isleton	C- Maintenance & Rehabilitation	Street Repairs	Remove & replace existing street surface & subgrade due to degradation	Completion by 2020	$1,000,000	$1,049,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24316	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	ADA Transition Plan	In Rancho Cordova: Continue ADA Transition Plan project delivery including reconstructing curb ramps, repairing sidewalks, installing new curb ramps and new sidewalks, sidewalk bus pad modifications, removal of walkway barriers and traffic signal retrofits.	Lump Sum or Ongoing	$2,300,000	$3,022,000
SAC24185	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Americanos Rd.	Construct New Road: 2 lanes from Kiefer Blvd. to Chrysanthy Blvd. Includes: intersection improvements at Keifer Blvd. and Chrysanthy Blvd.	Completion after 2036	$3,276,000	
SAC24376	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Americanos Rd.	Construct New Road: 2 lanes from Douglas Rd. to International Dr. Includes: intersection improvements at International Dr. and Villagio (Phase III)	Completion after 2036	$8,849,000	
SAC24375	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Americanos Road, Phase I	New 4 lane roadway from Chrysanthy to North of Douglas Road. (Phase 1)	2021-2036	$2,969,000	$3,623,000
SAC24676	Yes	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Aramon Dr./Coloma Rd. Signals	Aramon Dr. (Studarus Dr.)/Coloma Rd.: Install traffic signals. (HSIP5-03-014)	Completion by 2020	$532,200	$532,200
SAC24971	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Centennial Drive	New 2 lane road off International Drive South connecting to Grant Line Road including intersection improvements at International, Americanos and Grant Line Rd.	Completion after 2036	$9,903,710	
SAC24187	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Chrysanthy Blvd	Construct New Road: 4 lanes from Sunrise Blvd. to Rancho Cordova Parkway.	Completion by 2020	$3,690,000	$3,870,000
SAC24988	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Chrysanthy Blvd	Construct New Road: 4 lanes from Rancho Cordova Parkway to Americanos and new 2 lanes from Americanos to Grant Line Rd. Includes: intersection improvements at Rancho Cordova Pkwy., Americanos, and Grant Line Rd.	2021-2036	$10,091,000	$12,314,000
SAC24996	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Class I Bike Trails	Add new Class I bike trails consistent with the City Bike Master Plan	Completion by 2020	$5,000,000	$5,245,000
SAC24677	Yes	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Coloma Rd. Signals	Coloma Rd. between Folsom Blvd. and Sunrise Blvd.: Upgrade traffic signals (interconnect) and install traffic cameras. (HSIP5-03-015)	Completion by 2020	$935,500	$935,500
SAC24824	Yes	Sacramento	City of Rancho Cordova	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation - Sunrise Blvd	Rehabilitate Sunrise Blvd. from Folsom Blvd. to Douglas Rd. And construct bicycle and pedestrian improvements.	Completion by 2020	$5,495,000	$5,764,000
SAC24473	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Douglas Rd. Widening	Widen Douglas Rd. from 2 to 4 lanes from Sunrise Blvd. to the West City Limit. Includes the addition of a new bridge over the Folsom South Canal adjacent to the existing bridge. (See SAC20240)	Completion by 2020	$13,000,000	$13,000,000
SAC24678	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Douglas Rd./Grant Line Rd. Safety Improvements	Douglas Rd./Grant Line Rd.: Install traffic signal; widen roadway (to accommodate left-turn and right-turn pockets and bike lanes)(HSIP5-03-016)	Completion by 2020	$1,040,600	$1,040,600
SAC24628	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Douglas Road Phase 2	Douglas Rd, from Rancho Cordova Parkway to Americanos Blvd.: Widen from 2 to 5 lanes with striping for three eastbound lanes and two westbound lanes. New signals will be installed at the intersections of Rancho Cordova Parkway, Timberlands Drive and an interim signal at Americanos Blvd.	Completion by 2020	$2,600,000	$2,600,000
SAC24629	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Douglas Road Phase 3	Widen Douglas Road from 2 to 4 lanes from Americanos Blvd to Grant Line Rd and intersection improvements at Grant Line Road.	2021-2036	$6,488,000	$7,917,000
SAC24183	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Easton Valley Pkwy Phase 1	Construct Easton Valley Parkway as a new 4-lane road from Rancho Cordova Parkway to the City Limits including intersection improvements at Rancho Cordova Parkway.	Completion by 2020	$9,758,000	$9,758,000
SAC24372	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Easton Valley Pkwy.	Widen: from 4 to 6 lanes from Rancho Cordova Pkwy. to Hazel Ave. with enhanced intersection improvements at Rancho Cordova Pkwy. and Hazel Ave. (Phase II)	Completion after 2036	$47,090,000	
SAC24717	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Folsom Blvd. Complete Streets (Phase 4)	Folsom Blvd., from Horn to Rod Beaudry, and from Sunrise Blvd. to Kilgore Rd.: provide streetscape improvements by installing new and bifurcated sidewalks and landscaped medians.	Completion by 2020	$5,095,135	$5,095,135
SAC24825	Project Development Only	Sacramento	City of Rancho Cordova	A- Bike & Ped	Folsom Blvd. Enhancements Phase 5	Streetscape Project: On Folsom Blvd from Bradshaw Rd. to Sunrise Blvd. Includes: landscape and safety improvements for bicycle and pedestrian access to transit. (Phase IV)	Completion after 2036	$34,703,000	
SAC24993	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Folsom South Canal Bike Trail Amenities	Amenities including, but not limited ot, way finding signs, bike repair stations, shade strictures, striping, and other amenities as appropriate	Completion by 2020	$300,000	$315,000
SAC24243	Project Development Only	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Grade Separate RT Gold Line At Bradshaw Road	Rail Crossing Project: at Bradshaw Road, plan and construct a rail grade seperation for RT s Gold line.	Completion after 2036	$12,500,000	
SAC24245	Project Development Only	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Grade Separate RT Gold Line At Mather Field Road	Rail Crossing Project: at Mather Field Road, plan and Construct a Rail Grade Seperation for RT s Gold line.	Completion after 2036	$25,000,000	
SAC24244	Project Development Only	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Grade Separate RT Gold Line At Routier Road	Rail Crossing Project: at Routier Road, plan and Construct a Rail Grade Seperation for RT s Gold line.	Completion after 2036	$25,000,000	
SAC24247	Yes	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Grade Separate RT Gold Line At Zinfandel Drive	Rail Crossing Project: at Zinfandel Drive plan and Construct a Rail Grade Seperation for RT s Gold line.	2021-2036	$25,000,000	$39,098,000
SAC24276	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	International Dr.	Construct New Road: 4 lanes from Sunrise Blvd. to Rancho Cordova Parkway Includes: intersection improvements at Sunrise Blvd.	Completion after 2036	$31,289,000	
SAC24471	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	International Dr.	Construct New Road: 4-lanes from Luyung Drive (western Rio Del Oro Specific Plan Boundary) to White Rock Rd. Includes: intersection improvements at Rancho Cordova Parkway, and White Rock Road.	2021-2036	$7,513,341	$11,750,000
SAC24989	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	International Dr.	Construct New Road: International Drive northern 4-lane loop from White Rock Road back to Rancho Cordova Parkway. Includes: intersection improvements at Rancho Cordova Parkway.	Completion after 2036	$5,025,000	
SAC24707	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Kiefer Blvd Extension	In Rancho Cordova, extend Kiefer Blvd from Rancho Cordova Pkwy to Grant Line as 4 lane road. Includes intersection improvements at Americanos and Grant Line. Developer will deliver project	2021-2036	$5,621,000	$5,621,000
SAC24374	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Kiefer Boulevard, Phase 2	Widen Kiefer Blvd. from 2-4 lanes from Sunrise Blvd. to Rancho Cordova Parkway.	Completion by 2020	$3,510,000	$3,510,000
SAC24201	Yes	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Kilgore Rd.	Roadway enhancements from International Dr. to White Rock Rd.	2021-2036	$693,000	$1,084,000
SAC24202	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Mather Blvd.	Construct New Road:4 lanes from Rockingham Rd. to Zinfandel Dr. Includes: widening existing roadway to 4 lanes.	2021-2036	$17,266,000	$27,003,000
SAC24204	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Mather Field Rd.	Widen: 6 lanes from Rockingham Rd. to Folsom Blvd. Includes: intersection improvements at Rockingham Rd.	Completion after 2036	$2,514,000	
SAC24219	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Mather Field Rd./U.S. 50 Interchange	Interchange Modification: at U.S. 50/Mather Field Rd.	Completion after 2036	$20,000,000	
SAC24990	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Mather Field Rd./U.S. 50 Interchange	Construct intersection modification at Mather Field Road., modify on and off ramp configuration and turn pockets, and improve pedestrian connectivity	2021-2036	$2,000,000	$2,441,000
SAC24455	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Mather Railroad Spur Rails to Trails	This project will provide a Class 1 bike trail along the rail corridor between Folsom and Rockingham Drive. This project will add sidewalks and enhance pedestrian and disabled access on the west side of Mather Field Road, between Folsom Boulevard and Rockingham Drive. This will allow for greater access to the historic "Mills Station" Light Rail Station and enhance access to both bus transit. (2010 Demo ID CA859)	Completion by 2020	$2,777,715	$2,777,715
SAC24550	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Old Placerville Rd.:International Drive	Widen to 4 lanes from Bradshaw Rd. to Peter McCuen Blvd. Includes: intersection improvements at Routier Rd. & Mather Blvd.	Completion after 2036	$9,389,000	
SAC24991	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Old Placerville Rd.:International Drive	Widen to 6 lanes from Bradshaw Rd. to Peter McCuen Blvd. Includes: intersection improvements at Routier Rd. & Mather Blvd.	Completion after 2036	$30,886,000	
SAC24317	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Pedestrian Facilities and Sidewalk Gap program	Pedestrian Improvements: Throughout Rancho Cordova, construct new pedestrian facilities based on Pedestrian Master Plan. Continue Sidewalk Gap project delivery. Includes: grade separations at key locations.	Lump Sum or Ongoing	$12,200,000	$16,032,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24997	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Pedestrian Overcrossing at Folsom Lake College	Bicycle and pedestrian overcrossing of Folsom Bouleard connecting the Mather Field/Mills SACRT Lght Rail Station to the Bicycle and pedestrian overcrossing of Folsom Bouleard connecting the new Folsom Lake College campus to the Mather Field/Mills SACRT Lght Rail Station to the new	Completion by 2020	$4,000,000	$4,196,000
SAC24180	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Pedestrian Promenade	Bicycle and pedestrian overcrossing of U.S. 50 connecting Olsen Drive to Prospect Park Drive as defined in The Promenade: Connecting and Revitalizing Rancho Cordova Planning Study (reference SAC24157).	Completion by 2020	$8,500,000	$8,916,000
SAC24586	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Peter A. McCuen Blvd.	Widen to 4 lanes from Mather Blvd. to International Dr. (including Femoyer St). Includes: intersection improvements at Mather Boulevard, Mather Field Road, Femoyer Street/Air Park Dr. and International Dr.	2021-2036	$17,571,000	$21,442,000
SAC24826	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Promenade Stage 2, Transit Bridges	This project consists of constructing two Bridge structures directly adjacent to the bike/ped Bridge (Pedestrian Promenade). Each of these new Bridge structures will accommodate a transit way (rubber tired or fixed guideway streetcar) in addition to bike and pedestrian movements if desired. The project would provide directl transit linkage between the town center and the employment and residential areas south of Hwy 50.	Completion after 2036	$21,600,000	
SAC24239	Yes	Sacramento	City of Rancho Cordova	E- Transit Capital (Vehicles)	Purchase or Lease 23 Shuttles	Replace contracted shuttle fleet with city owned or leased fleet, including three back-up vehicles (23 shuttles total)	2021-2036	$5,750,000	$7,017,000
SAC24718	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Rancho Cordova Elementary School Bicycle and Pedestrian Improvements	Along Chasella Wy. and Pedro Wy. between Malvasia Dr. and Zinfandel Dr., on Malaga Wy. and Sarda Wy. between Vernaccia Wy. and Furmint Wy., and on Furmint Wy. between Malaga Wy. and north of Saltana Wy.: Fill in gaps in sidewalks, crosswalks, and bicycle routes. (Emission Benefits in kg/day: 0.02 ROG, 0.01 NOx, 0.01 PM10, 0.01 PM2.5)	Completion by 2020	$1,848,456	$1,848,456
SAC22980	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rancho Cordova Parkway - Douglas to White Rock	Construct Rancho Cordova Parkway as a six lane roadway from White Rock to Villagio and a 4 lane roadway from Villagio to Douglas Road, including intersection improvements at Villagio and White Rock Road.	2021-2036	$17,000,000	$20,745,000
SAC24630	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rancho Cordova Parkway, Chrysanthy Blvd to Kiefer Road	Rancho Cordova Parkway: Widen existing road 2-4 lanes from Chrysanthy Blvd to Kiefer Road	2021-2036	$3,654,348	$4,459,000
SAC24511	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rancho Cordova Parkway, Douglas Road to Chrysanthy Boulevard	Construct a new 4 lane road Rancho Cordova Parkway, from Douglas Road to Chrysanthy Boulevard.	Completion by 2020	$3,426,000	$3,426,000
SAC24295	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rancho Cordova Pkwy, Grant Line to Kiefer	Construct New Road: 4 lanes from Grant Line Rd. to Kiefer Blvd. Includes intersection improvement at Grant Line Rd.	2021-2036	$3,709,000	$4,526,000
SAC24181	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rio Del Oro Pkwy	Rio Del Oro Parkway: New 2 lane road from Rancho Cordova Parkway to White Rock Road including intersection improvements at Rancho Cordova Parkway, Americanos Blvd., and White Rock Road (CP09-2070)	Completion after 2036	$8,211,000	
SAC24371	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Rio Del Oro Pkwy.	Widen: from 2 to 4 lanes from Rancho Cordova Pkwy. to White Rock Rd. (Phase III)	Completion after 2036	$3,000,000	
SAC24995	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Rod Beaudry Cycle Track Improvements	Projects includes a raised barrier to protec t cyclists from traffic, painted bike lane or other identifier	Completion by 2020	$250,000	$262,000
SAC24221	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Routier Rd.	Widen: from Old Placerville Rd. to Folsom Blvd. including structure over U.S. Hwy. 50.	2021-2036	$8,743,000	$13,673,000
SAC24994	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Routier Road Cycle Track Improvements	Projects includes a raised barrier to protec t cyclists from traffic, painted bike lane or other identifier	Completion by 2020	$500,000	$524,000
SAC24468	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Sunrise Blvd - Kiefer Blvd to SR16	Widen Sunrise Boulevard: 2 to 4-lanes from Kiefer Boulevard to State Route 16 (Jackson Highway) and construct partial intersection improvements at Sunrise Boulevard and State Route 16. The project includes modifications to the bridge on Sunrise Boulevard over Laguna Creek. (The $5,227,000 of local agency funds is Sac County funding. City will advance costs and enter into MOU with County for reimbursement for County share.)	Completion by 2020	$12,000,000	$12,000,000
SAC24349	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Sunrise Blvd. and Jackson Hwy. Intersection	Construct 6x6 intersection with two bridge sections over the creek at Sunrise Boulevard and Jackson Highway.	2021-2036	$10,355,460	$16,195,000
SAC24635	Yes	Sacramento	City of Rancho Cordova	C- Maintenance & Rehabilitation	Sunrise Blvd. Complete Streets Rehabilitation	Sunrise Blvd., from Coloma to 762 feet north of Gold Express Drive: rehabilitate northbound and southbound lanes with a minimum of 2 inches of asphalt. Complete streets improvements include new crosswalks as well as other bike and pedestrian improvements.	Completion by 2020	$3,359,000	$3,359,000
SAC24210	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Sunrise Complex Improvements	On Sunrise Blvd, construction intersection modifications and pedestrian improvements and include road widening along Sunrise or capacity increasing improvements and modifications at US 50.	Completion after 2036	$50,000,000	
SAC24710	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Traffic Management Center & ITS Upgrades	In the City of Rancho Cordova: install a traffic management center. At various locations on Sunrise Blvd, Folsom Blvd, Zinfandel Dr, Mather Field and Rockingham and White Rock Rd.: Install new traffic signal controllers, expand the existing coordinated signal system, and install fiber to connect to traffic operations center. Intelligent Transportation System (ITS).(HSIP6-03-013, Toll credits for PE and CON)	Completion by 2020	$4,000,000	$4,000,000
SAC24220	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	US 50 / Rancho Cordova Parkway Interchange	At US 50 and Rancho Cordova Pkwy.: Construct new interchange including auxiliary lanes on U.S. 50 between Hazel Ave. and Sunrise Blvd. and a four lane arterial connection to US 50 of Rancho Cordova Pkwy. to White Rock Rd.(CP05-2003)	Completion by 2020	$100,000,000	$100,000,000
SAC24182	Project Development Only	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	Villagio	Construct New Road: 2 lanes from Douglas Rd. to White Rock Rd. Includes: intersection improvements at Douglas Rd., Rancho Cordova Pkwy., International Dr., Americanos Rd., and White Rock Rd.	Completion after 2036	$2,496,000	
SAC24470	Yes	Sacramento	City of Rancho Cordova	B- Road & Highway Capacity	White Rock Rd. - Construct Sunrise Blvd. to City Limits; Environmental Sunrise to Grant Line	Environmental will be for both this project and the County of Sacramento project SAC24249. Enviornmental will be done for White Rock Road Sunrise Blvd to Grant Line Road. Construction will include: On existing 6-lane White Rock Rd., from Sunrise Blvd. to Luyung Dr.: construct improvements, including Class II bikeway. On White Rock Rd from Luyung Dr. to eastern City Limits: widen and reconstruct from 2 to 4 lanes and construct Class II bikeway. (CMAQ funds only to be used for new bicycle facilities.) (Emission Benefits in kg/day: 0.03 ROG, 0.03 NOx, 0.02 PM10). Additional construction will be completed under the Sacramento County project SAC24662.	Completion by 2020	$18,366,000	$18,366,000
SAC24703	Yes	Sacramento	City of Rancho Cordova	G- System Management, Operations, and ITS	Zinfandel Complex Improvements	On Zinfandel Blvd, modify US 50 ramp intersections, lengthen turn pockets, add additional overhead signage, and build pedestrian refuge islands.	Completion by 2020	$5,410,000	$5,410,000
SAC24828	Yes	Sacramento	City of Rancho Cordova	A- Bike & Ped	Zinfandel Complex Improvements - Phase2	Construct intersection and pedestrian improvements on Zinfandel Drive between White Rock Road and Folsom Blvd, including modifications at US 50/Zinfandel to improve safety and ease congestion along the corridor, including bridge widenings, ramp and intersection reconstruction and reconstruction of intersections.	2021-2036	$45,968,000	$71,891,000
SAC24500	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	12th St. Signal Upgrades	12th St. between Richards Blvd. and L St.: Upgrade traffic signal system; repair conduit infrastructure between signals; provide dynamic train and vehicle signs; improve signing and striping. HSIP3-03-001 (T15115000)	Completion by 2020	$1,300,000	$1,300,000
SAC24610	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	14th Ave. Extension Phase 1	Sacramento. Extension of 14th Avenue from Power Inn Rd to Florin-Perkins. Phase I includes environmental/PE for four lane roadway and construction of two-lane roadway with class II bicycle lanes and landscape planter/sidewalks on the south side of the roadway. Also includes new water and drainage facilities, new streetlights, new traffic signal at 14th Ave/Florin Perkins Rd, and modification to existing traffic signal. (Phase 2 SAC24656, Phase 3 SAC24657)	Completion by 2020	$7,058,000	$7,058,000
SAC24656	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	14th Ave. Extension Phase 2	Sacramento. 14th Ave., from Power Inn Road to Florin Perkins, widen from 2 to 4 lanes. Construction includes bike lanes, landscaped center median, landscaping and sidewalk on north side of street. Retaining wall along north side of project. (PE/ENV included in Phase 1, SAC24610)	Completion after 2036	$3,750,000	
SAC24657	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	14th Ave. Extension Phase 3	Sacramento. 14th Avenue from Florin-Perkins Rd to Watt Ave: extend as a four lane road.	Completion after 2036	$8,500,000	

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24623	Yes	Sacramento	City of Sacramento	A- Bike & Ped	16th Street Streetscape	On 16th Street from S Street to N Street, pedestrian improvements including bulb-outs, landscaping and trees, banners, pavement treatments, bike racks, and street furniture,and street lights.	Completion by 2020	$2,660,000	$2,660,000
SAC24758	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	5th Street and Railyards Blvd	In Downtown Sacramento Railyards, extension of 5th Street from H Street to Railyards Boulevard, including bridge over relocated mainline railroad tracks, and construction of four lane Railyards Boulevard from east of Bercut to 7th Street, including frontage improvements and utilities. (See MTP Project SAC24537, Downtown Sacramento Circulation)	Completion by 2020	$32,000,000	$32,000,000
SAC23630	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	65th St.	Widen: 5 lanes from Hwy. 50 to Broadway.	2021-2036	$4,000,000	$4,881,000
SAC24757	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	6th Street Extension	In Downtown Sacramento Railyards, from H Street to Railyards Blvd. Construct 3-lane roadway with frontage improvements and utilities, including bridges over relocated mainline railroad tracks. (See MTP Project SAC24537, Downtown Sacramento Circulation)	Completion by 2020	$20,040,000	$20,040,000
SAC24693	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Auburn Blvd. Bridge Replacement	Auburn Blvd. over Arcade Creek, at Winding Way: Replace existing five lane bridge with a new five lane bridge	Completion by 2020	$5,917,000	$5,917,000
SAC22840	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Bell Ave.	Widen: 3 lanes from Norwood Ave. to Raley Blvd.	2021-2036	$20,000,000	$31,279,000
SAC22850	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Bell Ave.	Widen: 3 lanes from Raley Blvd. to Winters St.	Completion after 2036	$1,200,000	
SAC24633	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance Program	Various Locations in the City of Sacramento: rehabilitate bridges. For locations and detail, see www.dot.ca.gov/hq/LocalPrograms/hbrr99/2011_10_20_hbp_lists/PM00063%20City%20of%20Sacramento.pdf	Completion by 2020	$962,881	$962,881
SAC18670	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	I-5 / Highway 99	On/Off Ramp Improvement: Add 2nd on-ramp at I-5 / Hwy. 99 Interchange.	2021-2036	$216,000	$264,000
SAC24712	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Carlson Dr. Safety Improvements	On Carlson Dr between approx. 250' north of H St and 250' south of J St; On H ST between Camilla Ave and Carlson Dr: Upgrade traffic signals, signs, and striping; Construct curb ramps and crosswalks. (HSIP6-03-015)	Completion by 2020	$1,314,695	$1,314,695
SAC24723	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Complete Street Rehabilitation - Power Inn Rd.	Power Inn Rd., from Folsom Blvd. to Alpine Ave.: Pavement rehabilitation and complete streets improvements. (Toll Credits for PE and CON) T15145400	Completion by 2020	$2,597,989	$2,597,989
SAC24719	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation - Bell Ave.	Bell Ave. from Bollenbacher Ave. to Astoria St.,: rehabilitate pavement, fill in sidewalk gaps, add new bicycle lanes, add two-way left turn lanes, and add bus pullouts. (Toll Credits for PE and CON)-T15145600	Completion by 2020	$5,759,968	$5,759,968
SAC24722	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation - Fruitridge Rd.	Fruitridge Rd., from 65th St. to Power Inn Rd.,: rehabilitate sidewalks up to standard, and add bicycle lanes, actuated crosswalks, and new crosswalks. (Toll Credits for PE and CON). T15036300	Completion by 2020	$3,100,000	$3,100,000
SAC24139	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Del Paso Rd	In Sacramento,from I-5 N/B offramp to East Commerce (north side only), widen Del Paso Road.	2021-2036	$516,000	$807,000
SAC24499	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Docks Riverfront Promenade	In Sacramento, extend pedestrian/bicycle riverfront promenade from R St to Pioneer Bridge. Relocation and reconstruction of main rail line. Pedestrian/bicycle paths, benches, lighting, interpretative signs, rail crossings, and on-street bicycle lanes.	Completion by 2020	$12,518,290	$13,130,000
SAC24557	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	Downtown Sacramento Circulation	Roadway Operational Improvements: Unspecified funding for future operational improvements to accommodate increased bus and rail traffic, auto, trucks, in downtown Sacramento.	Lump Sum or Ongoing	$100,000,000	$131,413,000
SAC24497	Yes	Sacramento	City of Sacramento	D- Programs & Planning	Downtown Sacramento Transportation Study	Downtown Sacramento, bounded by Broadway, Sacramento River, American River, and Alhambra Blvd.: Study the cost and priority of the $100 million in improvements planned in the MTP2035.	Completion by 2020	$1,200,000	$1,200,000
SAC18460	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	East Commerce Way	In Sacramento, East Commerce Way from Club Center Drive to Del Paso Rd, extend as a 6-lane facility.	2021-2036	$8,142,225	$12,734,000
SAC18570	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	East Commerce Way	In Sacramento, extend East Commerce Way from Arena Blvd. to Natomas Crossing Drive, as a 6 lane road.	2021-2036	$3,329,000	$5,206,000
SAC18580	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	East Commerce Way	Extend East Commerce Way from planned Natomas Crossing Drive to San Juan Rd. as a 4 lane road.	2021-2036	$4,000,000	$4,881,000
SAC18740	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	El Centro Rd.	New Overcrossing: El Centro Rd. overcrossing.	2021-2036	$11,000,000	$13,423,000
SAC23690	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Elder Creek Rd.	Widen: 4 lanes from Power Inn Rd. and Florin Perkins Rd.	Completion after 2036	$1,900,000	
SAC23680	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Elder Creek Rd.	Widen: 4 lanes from Florin Perkins Rd. to South Watt Ave.	2021-2036	$7,000,000	$10,948,000
SAC18510	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Elkhorn Boulevard	In Sacramento, Elkhorn Boulevard from SR 99 to east city limits: widen from 2 to 6 lanes.	2021-2036	$7,073,566	$11,063,000
SAC24711	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	Flashing Beacons	9 locations throughout the City of Sacramento: Install flashing beacon. (HSIP6-03-014) T15145800	Completion by 2020	$1,665,967	$1,665,967
SAC24402	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Folsom Blvd Operations and Maintenance	Folsom Blvd. from Power Inn Road to Watt Avenue; streetscape project including pedestrian and bicycle improvements, a raised landscaped median, landscaped planters, improvements to signal operations, frontage landscaping, and enhanced connections to transit facilities.	Completion by 2020	$19,500,000	$20,454,000
SAC24535	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Folsom Blvd.	Streetscape Project: Folsom Blvd from Power Inn. to 65th St.	2021-2036	$18,500,000	$28,933,000
SAC24636	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Folsom Blvd. Complete Streets Rehabilitation	Folsom Blvd., from 65th St. to the Union Pacific Railroad underpass: rehabilitate roadway. Complete streets features include new bicycle lanes and new sidewalks to fill in missing sections. (Emission Benefits in kg/day: 0.13 ROG, 0.1 NOx, 0.06 PM10) - T15135100	Completion by 2020	$1,997,000	$1,997,000
SAC22610	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Folsom Blvd./Power Inn Rd. Intersection (Ramona Ave Phase I)	Near intersection of Folsom Blvd. and Power Inn: Ramona Ave., extend northward from Brighton Ave. to connect to Folsom Blvd. This will improve the operations of the Folsom Blvd./Power Inn Intersection. (Phase 2, SAC24654)	Completion by 2020	$8,629,889	$8,629,889
SAC24704	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Freeport Blvd. Road Diet	On Freeport Blvd., from Sutterville Rd. to 4th Ave./21st St.: reduce travel lanes from 4 to 2 with median turn pockets, add Class II bike paths, install transit turnouts, and rehabilitate pavement. (Emission Benefits in kg/day: 0.02 ROG, 0.01 NOx) K15125100	Completion by 2020	$2,059,200	$2,059,200
YOL19286	Yes	Yolo	City of Woodland	C- Maintenance & Rehabilitation	I-5 / CR 102 Interchange (Phase 2)	Interchange Reconstruction: on I-5 at County Rd. 102 including overcrossing of I-5.	2021-2036	$7,000,000	$8,542,000
SAC24683	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	I St. Bridge Replacement	I Street Bridge, over Sacramento River and complex of bridge approach structures. Replace existing 2 lane bridge with a 2 lane bridge on a new alignment. Project includes bridge approaches 22C0154, 24C0006, 24C0364L, 24C0364R, 24C0351J.	Completion by 2020	$86,620,900	$86,620,900
CAL20586	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Bus/Carpool Lanes	Bus/Carpool Lanes: J St. to I-80 in both directions, including a new Class I bike path over the American River	2021-2036	$116,000,000	$141,552,000
CAL20600	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 99 Auxiliary Lane	SR 99 auxiliary lane: NB from WB Florin Rd. slip on ramp to EB 47th Ave. slip off ramp. Right-of-way aquisition required. Soundwall relocation required.	2021-2036	$3,000,000	$3,661,000
CAL20601	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 99 Auxiliary Lane	SR 99 Auxiliary Lane extension: SB, from Martin Luther King Blvd on ramp. to WB 47th Ave. slip off ramp. Right-of-way aquisition required. Soundwall relocation required.	2021-2036	$3,000,000	$3,661,000
CAL20599	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	SR 99 Transition Lane	SR 99 Transition Lane: NB, from WB 47th Ave. slip on ramp to EB Fruitridge Rd. slip on ramp, and from WB Fruitridge Rd. loop off ramp to WB Fruitridge Rd. slip on ramp. Right-of-way aquisition required. Soundwall relocation required.	2021-2036	$3,000,000	$3,661,000
SAC18650	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	I-80 @ West El Camino Interchange	Expand the West El Camino interchange on I-80 from 2 to 4 lanes and modify ramps.	2021-2036	$22,000,000	$34,407,000
SAC16040	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Jackson Hwy. (SR 16)	Road Realignment: 4 lane Rd. from Power Inn Rd. to South Watt Ave.	2021-2036	$25,000,000	$39,098,000
SAC24886	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	K Street Streetscaping	Streetscape improvements along K Street	Completion by 2020	$2,000,000	$2,098,000
SAC23410	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Kiefer Blvd.	Widen: 4 lanes from Florin-Perkins Rd. to S. Watt Ave.	Completion after 2036	$1,000,000	

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Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24539	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Lower American River Crossing	New all-modal Bridge: between downtown Sacramento and South Natomas across the Lower American River. Includes: Auto, transit, bicycle, and pedestrian facilties. Scale and features to be determined through need and purpose study anticipated to begin in 2012.	2021-2036	$150,000,000	$183,042,000
SAC24679	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	Mack Rd./Valley Hi Dr. Signal Upgrade	Mack Rd./Valley Hi Dr. (La Mancha Way): Upgrade traffic signals; install right-turn lane. (HSIP5-03-018) T15146400	Completion by 2020	$550,955	$550,955
SAC23430	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Main Ave.	Widen: 4 lanes from Norwood Ave. to Rio Linda Blvd.	2021-2036	$7,000,000	$10,948,000
SAC24536	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Main Ave.	Road Extension: 2 lanes from Rio Linda Blvd. to Marysville Blvd.	2021-2036	$2,000,000	$3,128,000
SAC24541	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Main Ave.	Widen: 4 lanes from Norwood Ave to Marysville Blvd.	Completion after 2036	$4,000,000	
SAC23440	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Mangan Park	Bikeway Facilities: 0.6 mile in City of Sacramento Mangen Park from 24th St. to Freeport Blvd. Bike trail south in Executive Airport right-of-way.	2021-2036	$800,000	$976,000
SAC24742	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Meadowview Rd. Streetscape Project	Meadowview Rd. from the light rail station to I-5 and along 24th St from Meadowview Rd. to Florin Rd. including medians, sidewalk treatments, and crosswalks. T15145500	Completion by 2020	$3,700,395	$3,700,395
SAC18720	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Natomas Crossing Dr.	New Overcrossing: Natomas Crossing Dr. at I-5.	2021-2036	$11,000,000	$13,423,000
SAC18560	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Natomas Crossing Drive	In City of Sacramento, build new Natomas Crossing Drive as 2 lane road from Duckhorn Drive to El Centro Rd.	2021-2036	$4,340,715	$6,789,000
SAC24743	Yes	Sacramento	City of Sacramento	A- Bike & Ped	North 12th St. Streetscape Project	North 12th St. between North B St. and Richards Blvd., construct six to eight feet sidewalks, drainage, and adding wrought iron fencing to separate pedestrians from light rail tracks. T15136200	Completion by 2020	$1,355,473	$1,355,473
SAC18700	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Northgate Blvd.	On/Off Ramp Improvement: Extend existing I-5 WB off-ramp at Northgate Blvd. / I-80 Interchange. Includes: auxiliary lane to WB on-ramp.	2021-2036	$10,000,000	$12,203,000
SAC16070	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Power Inn Rd.	Widen: 6 lanes from Fruitridge Rd. to 14th.	2021-2036	$25,000,000	$39,098,000
SAC24472	Yes	Sacramento	City of Sacramento	A- Bike & Ped	R Street Market Plaza (16th to 18th St)	Sacramento, R Street between 16th & 18th Streets, develop pedestrian pathway, streetscape improvements, community gathering place, and reconstruct roadway. T15068300 (Emission Benefits in kg/day: 0.03 ROG, 0.02 NOx, 0.01 PM10)	Completion by 2020	$4,215,000	$4,215,000
SAC24673	Yes	Sacramento	City of Sacramento	A- Bike & Ped	R Street Phase 3	Sacramento, construct streetscape improvements, streetlighting, landscaping, hardscaping, and pedestrian enhancements on R Street between 13th Street and 16th Street T15135900	Completion by 2020	$4,822,950	$4,822,950
SAC24615	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Railyard Boulevard Extension	Railyard Boulevard, between Jibboom Street and Bercut Street: construct approximately 200 feet of new roadway (one lane each direction) to provide access to Downtown Railyards. (See MTP Project SAC24537.)	Completion by 2020	$1,000,000	$1,000,000
SAC24537	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Railyards Streets	Construct New Road: various roads in the Railyards Redevelopment Area.	2021-2036	$154,200,000	$188,167,000
SAC19550	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Raley Blvd.	Widen: 4 lanes from Santa Ana Ave. to Ascot Ave.	Completion after 2036	$1,200,000	
SAC24654	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Ramona Avenue Phase II	Ramona Avenue: Widen and add new frontage improvements from Cucamonga to Brighton. Environmental review completed under SAC22610. (No new travel lanes.)	2021-2036	$3,000,000	$4,692,000
SAC24538	Yes	Sacramento	City of Sacramento	G- System Management, Operations, and ITS	Rio Linda & Main Intersection Improvements	Intersection Improvements: at Rio Linda Blvd. and Main Ave. Includes: traffic signal installation and intersection re-configuration.	Completion by 2020	$4,500,000	$4,720,000
SAC24517	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Rio Linda Blvd. Bridge Rehab	Rio Linda Blvd., Over Magpie Creek, 0.92 miles north of FAI 880: Rehabilitate the existing 2 lane bridge.	Completion by 2020	$4,000,000	$4,000,000
SAC24705	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Riverfront Reconnection Project-Phase I	At Capitol Mall and Second St,. build a new ramp to Old Sacramento. On Capitol Mall, build a new traffic signal at Second St., build new sidewalks and add Class II bicycle paths. Extend design phase to accommodate potential Streetcar Transit Service. (Toll Credits for CON, CMAQ funds for new bike/ped facilities only. Emissions in kg/day: 0.04 ROG, 0.03 NOx, 0.02 PM10. See delivered project SAC24497 for PE work. Project included in the MTP/SCS as SAC22530, Bridging I-5.) T15998100	Completion by 2020	$10,225,400	$10,225,400
SAC23530	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Roseville Rd.	Widen: 4 lanes from Connie Dr. to Sacramento limits.	Completion after 2036	$3,000,000	
SAC24516	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	Roseville Rd. Bridge Replacement	Roseville Rd. Over Arcade Creek, 0.4 miles south of S.R 80.: Replace existing structurally deficient 2 lane bridge with new 2 lane bridge. T15068500	Completion by 2020	$6,710,029	$6,710,029
SAC24461	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Sacramento City College Bike/Ped Overcrossing	Sacramento, Sacramento City College/UPRR line. Bike/ped overcrossing of railroad to provide access to Sacramento City College Light Rail Station from existing and future development to the east.(T15065700) (Toll Credits for CON)	Completion by 2020	$11,107,958	$11,107,958
SAC24658	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Sacramento Intermodal Circulation Phase 2 (3rd & I)	Design and construct access improvements at 3rd & I (HPP #2788 and #3784). Feasibility Studies, preliminary design included in Phase 1.	2021-2036	$2,417,165	$2,417,165
SAC20350	Yes	Sacramento	City of Sacramento	E- Transit Capital (Major)	Sacramento Intermodal Trans. Facility - Phase 2	Sacramento Intermodal Transportation Facility Valley Station: Improvements to the existing station including: relocating the existing LRT station to a north-south alignment; relocating (repave/restripe) the existing RT and Amtrak bus berths; providing enhanced passenger connections; relocating passenger vehicle and bicycle parking; upgrading the Depot's electrical system; providing a transit way.	Completion by 2020	$40,663,140	$40,663,140
SAC24883	Yes	Sacramento	City of Sacramento	E- Transit Capital (Major)	Sacramento Intermodal Trans. Facility - Phase 2b	Sacramento Intermodal Transportation Facility Valley Station: Intermodal Facility Phase 2B project is a complete makeover and rehabilitation of the historic Depot to make the facility fully usable and attractive, arrest deterioration and meet code. The project elements will consist of repair and upgrade to the interior and exterior sections of the building including architectural, structural, plumbing, mechanical, electrical, energy, internal circulation, access and other work. Historic rehabilitation will involve features such as façades, canopies, openings, windows, doors, the mural and decorative treatments, finishes and other items.	2021-2036	$27,000,000	$32,948,000
SAC24414	Yes	Sacramento	City of Sacramento	E- Transit Capital (Major)	Sacramento Intermodal Transportation Facility - Phase 1	Sacramento Intermodal Transportation Facility: Realign and straighten the existing mainline UPRR freight and passenger rail tracks, provide passenger facilities that connect the Depot to the relocated platforms. (Project includes Prelim. Engineering for both Phase 1 and Phase 2 of the Sac. Intermodal Transp. Facility). Between Old Sacramento, the Central Business District, and the Railyards Development and River District: Construct a 247-foot pedestrian/bicycle tunnel beneath the re-aligned mainline Union Pacific tracks. (Other Fed-Project of National & Regional Significance is Section 1301 and are Earmarked funds from SAFETEA-LU. CMAQ funds are being used for straightening and realigning a 3,300-foot-long section of the UPRR mainline. The project will allow UPRR's trains to operate at higher speeds and reduce train idling. Emission Benefits in kg/day: NOx 1.2, CO 0.1, PM10 0.1)	Completion by 2020	$97,348,821	$97,348,821
SAC24898	Yes	Sacramento	City of Sacramento	E- Transit Capital (Major)	Sacramento Intermodal Transportation Facility - Phase 3	Intermodal Facility Phase 3 project is the creation of a larger multi-modal transportation center that can meet the region's expanded transportation needs and accommodate high speed trains, commuter rail, light rail, streetcars, transit bus lines, and intercity buses. It will involve expansion of the terminal facilities including passenger amenities and spaces, transportation operations areas, site and circulation improvements and joint development	2021-2036	$225,000,000	$351,885,000
SAC18710	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Snowey Egret Wy.	New Overcrossing: for the planned Snowey Egret Wy. that will run east-west from El Centro Rd. to Commerce Wy. crossing over I-5.	2021-2036	$11,000,000	$17,203,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24745	Yes	Sacramento	City of Sacramento	A- Bike & Ped	South Sacramento Parkway Trail - West	Adjacent to I-5, south of Pocket Road/Meadowview Road and Freeport Boulevard, build Class I bike trail connecting the Freeport Shores Bike Trail to the existing North Delta Shores Bike Trail. (Emission Benefits in kg/day: 0.12 ROG, 0.07 NOx, 0.02 PM 2.5, 0.02 PM10)	Completion by 2020	$914,000	$914,000
SAC18170	Yes	Sacramento	City of Sacramento	C- Maintenance & Rehabilitation	I-5 at Richards Blvd. Interchange	Sacramento, Richards Blvd. and I-5; reconstruct interchange (ult). (HPP #3784)(T15088200)	2021-2036	$40,535,000	$40,535,000
SAC23890	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Sutter's Landing Bridge	Multi-Use Crossing: Sacramento, Sutter's Landing Bridge, between American River Pkwy. and Sutter Landing Park. Construct bike/ped Bridge over American River.	Completion by 2020	$30,000,000	$31,467,000
SAC24600	Project Development Only	Sacramento	City of Sacramento	B- Road & Highway Capacity	Sutter's Landing Parkway	Construct New Road: 1.6 mile 4-lane arterial on new alignment between Hwy. 160 and Hwy. 51. Includes: sidewalks and bike lanes in both directions, a grade separation with the railroad, and a full interchange at the connection with Hwy. 51.	Completion after 2036	$100,000,000	
SAC24755	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Two Rivers Trail Phase 3	On the American River Parkway, construct a new Class I Western segment between Sutter's Landing and the California State University of Sacramento (CSUS) campus. PE for Phase 2 and 3 was completed as part of SAC24486.	Completion by 2020	$672,800	$706,000
SAC24486	Yes	Sacramento	City of Sacramento	A- Bike & Ped	Two Rivers Trail Phase II	Study and design bike/ped connections between the Northern Bicycle Trail and Sutter's Landing Park (Phase 2 and 3). Build Phase 2, construct the eastern segment of the multi-use path, connecting the American River Parkway at H St. in East Sacramento to the trail at Sutter's Landing Park in Midtown. Additional study future bicycle trial connections across the American River, Crossing the Capitol City Freeway, and extending east along the American River towards California State University at Sacramento. Phase 3 construction scope shown in SAC24755. (Emission Benefits in kg/day: 0.02 ROG, 0.02 NOx, 0.02 PM10) K15125000	Completion by 2020	$2,515,638	$2,515,638
SAC16130	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	W. El Camino Ave.	Widen: 6 lanes West El Camino Interchange. Includes: bike lanes at I-80 / Natomas Main Drainage Canal.	2021-2036	$24,000,000	$37,534,000
VAR56124	Yes	Sacramento	Easter Seals	E- Transit Capital (Vehicles)	Easter Seals Superior CA 5310 Large Bus Replacement	FTA 5310 funds to replace one (1) Large Bus that can accommodate 16 passengers (incl. two wheelchair positions) and a driver. (Toll Credits for CON).	Completion by 2020	$73,000	$73,000
PAR10020	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Vehicles)	Bus Expansion	Purchase up to fourteen CNG powered large buses for fleet expansion. (Uses Toll Credits for local match).	Completion by 2020	$980,000	$980,000
PAR10027	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Vehicles)	CTSA Vehicle Purchase	Purchase of three CTSA vehicles for Paratransit, Inc. Included in the project cost shall be purchase of the vehicles, radios, cameras, zonar and other necessary equipment to put the vehicle into service. Costs shall also include vehicle line assembly inspection.	Completion by 2020	$161,406	$161,406
PAR10030	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Minor)	Paratransit, Inc. Ranger 4 Implementation Project	Purchase and Installation of 150 Personal/Mobile Data Terminals (Ranger 4) and associated wiring, hardware, software and administrative costs	Completion by 2020	$592,500	$592,500
PAR10029	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Vehicles)	Purchase of 6 CNG Buses (including data/maintenance terminal Ranger units)	Purchase up to six CNG powered buses including related equipment to include data/maintenance terminal Trapeze Ranger units. (Uses Toll Credits for local match).	Completion by 2020	$525,867	$525,867
PAR10019	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Vehicles)	Replacement Buses and Associated Equipment	Replace up to thirty-nine demand response with Type III vehicles including related equipment to include mobile data terminals, cable assembly mounts, mobile radios, and zonar systems.	Completion by 2020	$3,750,000	$3,750,000
PAR10022	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Vehicles)	State of Good Repair 25 Replacement Vehicles	Replace up to twenty-five paratransit vehicles including related equipment.	Completion by 2020	$2,125,000	$2,125,000
PAR10025	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Minor)	Transit Asset Management System	Tracking system for capital assets.	Completion by 2020	$311,250	$311,250
PAR10021	Yes	Sacramento	Paratransit Inc.	E- Transit Capital (Minor)	Transit Operating Equipment	Purchase transit related equipment including 14 mobile radios, Zonar, and Fleetlink software. (Uses Toll Credits for local match).	Completion by 2020	$76,300	$76,300
VAR56129	Yes	Sacramento	Pride Industries/CTSA	E- Transit Capital (Vehicles)	Pride Industries CA 5310 Larger Bus Replacement	FTA 5310 funds to replace one (1) Larger Bus that can accommodate 20 passengers (incl. two wheelchair positions) and a driver.	Completion by 2020	$105,001	$105,001
VAR56107	Yes	Sacramento	SACOG	F- Transit O&M (Bus)	e-tran (Elk Grove) JARC Operating Assistance	FY 2011 & 2012 JARC funds will allow e-tran to serve the downtown Sacramento to Elk Grove reverse commute by creating two new routes using buses that previously operated as "deadhead" or closed door from downtown to Elk Grove.	Completion by 2020	$304,000	$304,000
VAR56106	Yes	Sacramento	SACOG	F- Transit O&M (Bus)	Paratransit, Inc. JARC Operating Assistance	Wheels to Work program providing transportation to social service, educational, and training opportunities as well as connections with fixed route transit and mobile "office resource bus." FY 2011 & 2012 funds will allow completion of this project.	Completion by 2020	$500,000	$500,000
SAC21710	Yes	Sacramento	SACOG	D- Programs & Planning	Sacramento County PPM	Plan, program and monitor for Sacramento County.	Completion by 2020	$6,971,000	$6,971,000
VAR56115	Yes	Sacramento	SACOG	E- Transit Capital (Minor)	Sacramento Regional Transit District - New Freedom Capital Assistance	Construct shelters over disabled access ramps (mini-high platforms) at light rail stations.	Completion by 2020	$287,500	$287,500
VAR56037	Yes	Sacramento	SACOG	D- Programs & Planning	SECAT Program Phase 2	Phase 2 of Sacramento Emergency Clean Air Transportation Program (SECAT), Heavy-Duty NOx control strategies. (Phase 1 SAC22090) (Emission Benefits in kg/day: 236 NOx, 21 PM10, 9 ROG. And in kg/day for each $3m increment: 835 NOx, 109 ROG)	Completion by 2020	$33,271,133	$33,271,133
VAR56103	Yes	Sacramento	SACOG	F- Transit O&M (Light Rail)	SRTD JARC Operating Assistance	The requested FFY 2011 & 2012 JARC funding would restore evening service to both of RT's light rail lines, as well as five major connecting bus routes (1, 23, 51, 56, & 80) and paratransit service within three quarter miles of this service.	Completion by 2020	$1,820,000	$1,820,000
SAC24389	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	16th St.	Widen: 4 lanes from Ascot Blvd. to Sacramento/Placer County Line.	2021-2036	$44,500,000	$54,302,000
SAC21530	Yes	Sacramento	Sacramento County	D- Programs & Planning	ADA Transition Plan	Facilities Plan: In Sacramento County, various locations, construct ADA compliant improvements in accordance with the county DOTs ADA Transition Plan.	Lump Sum or Ongoing	$15,000,000	$19,712,000
SAC24839	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Aerojet Rd	Construct New 4 lane road between Easton Valley Parkway and Folsom Blvd.	2021-2036	$10,000,000	$12,203,000
SAC24280	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Alta Florin Rd.	Construct New Road: 4 lanes from Power Inn Rd. to Florin-Perkins Rd. (Runs parallel and north of Florin Rd.) Includes: Railroad grade separation.	Completion after 2036	$5,000,000	
SAC24618	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Alta Mesa Rd Bridge Replacement	Alta Mesa Rd over Laguna Creek, 0.4 mi north of SR 104: Replace existing structurally deficient 2-lane bridge with a new 2-lane bridge.	Completion by 2020	$7,980,321	$7,980,321
SAC22020	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Antelope North Road Widening	In Sacramento County, Antelope North Road, from Poker Ln. to Olive Ave.: Realign and widen to 4 lanes.	2021-2036	$3,020,000	$4,723,000
SAC24264	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Antelope Rd.	Widen: 4 lanes from Watt Ave. to Elverta Rd and 6 lanes from Elverta Rd. to Roseville Rd. Project addresses: congestion, safety and aesthetics, and mobility for bicycles, pedestrians and transit.	2021-2036	$9,307,473	$14,556,000
SAC19790	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Antelope Road Widening	In Sacramento County, Antelope Road from Don Julio Boulevard to Roseville Road Antelope Road North, widen from 4 to 6 lanes.	Completion after 2036	$4,000,000	
SAC24608	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Apple Rd/Fruit Channel Bridge Replacement	Apple Rd, over Fruit Channel, 0.65 mi SE/O Dillard Rd. Replace the existing 2 lane functionally obsolete bridge with a new 2 lane bridge. (Toll credits for PE, ROW & CON.)	Completion by 2020	$1,400,000	$1,400,000
SAC19840	Yes	Sacramento	Sacramento County	A- Bike & Ped	Bike/Ped Improvements	Bikeway Facilities: In various Sacramento County locations. Includes: 2010 Bikeway Master Plan Implementation.	Lump Sum or Ongoing	$50,000,000	$65,706,000
SAC24840	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Birkmont Drive	Construct New 4 lane road between Easton Valley Parkway and Folsom Blvd.	2021-2036	$10,000,000	$12,203,000
SAC24224	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Bradshaw Rd.	Widen: 6 lanes between Old Placerville Rd. and Florin.	2021-2036	$37,500,000	$58,648,000
SAC22030	Yes	Sacramento	Sacramento County	A- Bike & Ped	Commercial Corridor Enhancements	Safety Enhancement: in Sacramento County, various locations. Includes: streetscaping, lighting, and other safety enhancements to enhance bicycle and pedestrian use.	Lump Sum or Ongoing	$50,000,000	$65,706,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24729	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation	1. Sunrise Ave. from 700 ft. north of Gold Express to American River Bridge: Rehabilitate Sunrise Ave., multi-use path crossings, install bicycle detection and curb ramps, and repair damaged and discontinuous sidewalks.2. Eastern Ave. from El Camino Ave. to Marconi Ave.: rehabilitate damaged and discontinuous sidewalks, add new bicycle lanes, and install bicycle detection and curb ramps.3. El Camino Ave. from Howe Ave. to Fulton Ave.: rehabilitate damaged and discontinuous sidewalks, install bicycle detection at traffic signals, install curb ramps, and close bicycle lane gaps.4. Greenback Lane from Chestnut Ave. to Folsom City Limits.,: rehabilitate Greenback Lane and add new bicycle lanes, repair damaged and discontinuous sidewalks, install curb ramps, and add bicycle detection at traffic signals.5. Marconi Ave. from Highway 80 to Howe Ave.: rehabilitate road, add new bicycle lanes, repair damaged and discontinuous sidewalks, install curb ramps, and add bicycle detection at traffic signals.	Completion by 2020	$4,196,205	$4,196,205
SAC24726	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation - Folsom Blvd.	Folsom Blvd. from Butterfield Wy. to Bradshaw Rd.,: Rehabilitate Folsom Blvd. and fill a sidewalk gap, fill bicycle lane gaps and upgrade the existing bicycle lanes.	Completion by 2020	$443,465	$443,465
SAC24730	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation of Fulton Avenue - 1	Fulton Avenue from Marconi Avenue to Auburn Boulevard: Rehabilitate pavement and re-stripe with on-street bike lanes.	Completion by 2020	$872,850	$872,850
SAC24731	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Complete Streets Rehabilitation of Fulton Avenue - 2	Fulton Avenue from Arden Way to Auburn Boulevard: add bike lanes, construct new sidewalks, repair and infill damaged/discontinuous sidewalks, install curb ramps and the required ADA improvements, and modify traffic signals. Rehabilitate pavement between Arden Way and Marconi Avenue.	Completion by 2020	$3,332,995	$3,332,995
SAC24841	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 4 lane roadway on North Loop Road from Grant Line Road to Street "F" with NEV/Bike lanes, median, landscaping, sidewalks, 4 traffic signals at Town Center Blvd, Street "D" and Primary Residential Street between Street "D" and Street "F" and Street "F", roundabout at Street "A"	Completion after 2036	$20,990,000	
SAC24842	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 4 lane roadway on University Blvd from Grant Line Road to Street "A" with NEV/Bike lanes, median, landscaping, sidewalks, 3 traffic signals (at Town Center Blvd, and 2 between Town Center Blvd and Street "A"), roundabout at Street "A"	Completion after 2036	$12,056,000	
SAC24843	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from University Blvd to North Loop Rd with Class 2 Bike Lines, NEV Compact, median, landscaping, sidewalks, 3 traffic signals and 2 roundabouts	Completion after 2036	$6,875,000	
SAC24844	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 4 lane roadway on Chrysanthy Blvd Ext. from Grant Line Road to Town Center Blvd with median, landscaping, sidewalks, 1 traffic signals at Town Center Blvd	Completion after 2036	$2,160,000	
SAC24845	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "A" to Street "F" with NEV/Bike lanes, median, landscaping, sidewalks	Completion after 2036	$7,651,000	
SAC24846	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "E" to North Loop Rd with Class 2 Bike Lines, NEV Compact, median, landscaping, sidewalks, traffic signal at Street "B" and 1 roundabout at Street "D"	Completion after 2036	$7,334,000	
SAC24847	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "A" (south of St. "B") to Street "A" (south of North Loop Rd.) with Class 2 Bike Lines, NEV Compact, landscaping, sidewalks	Completion after 2036	$5,800,000	
SAC24848	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "A" to Street "C" with Class 2 Bike Lines, NEV Compact, landscaping, sidewalks	Completion after 2036	$1,160,000	
SAC24849	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "A" to North Loop Rd with Class 2 Bike Lines, NEV Compact, median, landscaping, sidewalks, and 2 roundabouts at Street "A" and University Blvd	Completion after 2036	$8,167,500	
SAC24850	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from Street "A" to University Ave with Class 2 Bike Lines, NEV Compact, landscaping, sidewalks	Completion after 2036	$3,480,000	
SAC24851	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cordova Hills	New 2 lane roadway from University Ave to North Loop Rd with Class 2 Bike Lines, NEV Compact, landscaping, sidewalks	Completion after 2036	$2,320,000	
SAC24713	Yes	Sacramento	Sacramento County	A- Bike & Ped	Cottage Way Road Diet	On Cottage Way between Cortez Lane and Watt Ave: Install bike lanes, a "road diet" (reduce travel lanes from 4 to 3), and modify intersections. (HSIP6-03-016)	Completion by 2020	$700,000	$700,000
SAC19610	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Cypress Ave.	Widen: 4 lanes from Pasadena Ave. to Manzanita Ave.	Completion after 2036	$10,441,000	
SAC24520	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Dillard Rd. Bridge Scour Countermeasures	Dillard Rd., over Cosumnes river, 0.2 miles south of S.R. 16: Install scour countermeasures on scour critical bridge.	Completion by 2020	$1,278,751	$1,278,751
SAC24663	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Douglas Rd. - Zinfandel Dr. to Rancho Cordova City Limit	Widen Douglas Road, from Zinfandel Drive to Rancho Cordova west City Limits, from 2 to 4 lanes.	2021-2036	$2,400,000	$3,753,000
SAC22410	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Douglas Road Extension	In Sacramento County, Douglas Road from Zinfandel Drive to Kiefer Boulevard; new 4 lane roadway with raised landscaped median, curb, gutter and sidewalk, improvements also include installation of traffic signals at Douglas/Kiefer and Douglas/Excelsior Road. No R/W acquisition, only conveyance/process costs.	2021-2036	$19,837,200	$31,024,000
SAC24975	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Eagles Nest Road Widening	In Sacramento County, Zinfandel Drive from Jackson Road (State Route 16) to Kiefer Boulevard, construct and widen from 2 to 4 lanes with curb, gutter, sidewalk, raised landscaped median and traffic signal modification at Jackson Road (State Route 16).	Completion after 2036	$4,800,000	
SAC22430	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Eagles Nest Road Zinfandel Drive Widening	In Sacramento County, Eagles Nest Road Zinfandel Drive from Kiefer Boulevard to Douglas Road, construct and widen from 2 to 4 lanes with curb, gutter, sidewalk, raised landscaped median; improvements also include the installation of a box culvert and traffic signal at Eagles Nest Road/Kiefer Boulevard.	2021-2036	$11,800,000	$18,454,000
SAC24529	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Easton Valley Pkwy.	Construct New Road: 4 lanes from Hazel Ave. to Prairie City Rd.	2021-2036	$36,000,000	$56,302,000
SAC24766	Yes	Sacramento	Sacramento County	A- Bike & Ped	El Camino Avenue Phase 2 - Street and Sidewalk Improvements	In Sacramento County, on El Camino Avenue from Watt Avenue to Verna Way; Project features include sidewalk and walkway construction, installation of bicycle lanes, improvements to existing signalized and unsignalized intersections, drainage improvements, transit stops, and other improvements to benefit bicycle and pedestrian access and safety.	Completion by 2020	$2,250,000	$2,250,000
SAC24973	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	El Centro Rd.	4 lanes from I-80 to Arena Blvd (City of Sacramento Limits)	Completion after 2036	$8,500,000	
SAC24943	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elder Creek Rd.	Widen: 4 lanes from South Watt Ave. to Excelsior Rd.	2021-2036	$2,100,000	$3,284,000
SAC24380	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elk Grove-Florin Rd. Bridge	Elk Grove-Florin Rd, over Elder Creek, 0.1 mi north of Gerber Rd.: Rehabilitate functionally obsolete 2 lane bridge and widen to 6 lanes.	Completion by 2020	$6,097,301	$6,097,301
SAC15170	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elk Grove-Florin Rd. Widening	In Sacramento County, Elk Grove-Florin Road from North of Elder Creek to Florin Road: widen from 2 to 4 lanes. (Existing Elder Creek bridge is being replaced and widened to 6 lanes SAC24380)	Completion by 2020	$6,215,000	$6,215,000
SAC24525	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	Widen: 4 lanes from Lone Tree Rd. to Hwy. 99.	Completion after 2036	$210,000	
SAC24526	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	Widen: 6 lanes from Lone Tree Rd. to Hwy. 99.	Completion after 2036	$110,000	
SAC24527	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	Construct New Road: 2 lanes from Airport Blvd. / Crossfield Dr. to Power Line Rd. Includes: landscaped medians.	2021-2036	$8,200,000	$10,006,000
SAC24531	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	Widen: 4 lanes from Sacramento City limit east to 2nd Street.	2021-2036	$3,065,000	$4,793,000
SAC24938	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	Widen: 6 Lanes from Metro Air Parkway to Lone Tree Rd	Completion after 2036	$640,000	

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24974	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd.	4 lanes from Airport Blvd. / Crossfield Dr. to Lone Tree Rd	Completion after 2036	$14,800,000	
SAC15230	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Blvd. Widening	In Sacramento County, Elkhorn Blvd. from Watt Ave. to Don Julio Blvd.: widen from 4 to 6 lanes.	2021-2036	$14,284,000	$22,339,000
SAC15180	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elkhorn Boulevard Widening	In Sacramento County, Elkhorn Boulevard from Rio Linda Boulevard to SR 99: widen from 2 to 4 lanes, including bridge over Natomas east main drain, landscaping, new RR crossing and bike/ped facilities.	2021-2036	$14,000,000	$21,895,000
SAC22300	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elverta Rd.	Widen: 4 lanes from Rio Linda Blvd. to connection to north side of the Sacramento International Airport. Includes: bicycle and pedestrian facilities.	Completion after 2036	$2,600,000	
SAC24533	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Elverta Rd.	Widen: 6 lanes from Watt Ave. to Dutch Haven Ave.	Completion after 2036	$750,000	
SAC19620	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elverta Road & Dry Creek Bridge Widening	Widen Elverta Rd. from Dutch Haven Blvd. to Watt Ave. from 2 to 4 lanes. North Channel Dry Creek Bridge, between 28th St. and Gibson Ranch Park Rd.: replace 2 lane bridge with 6 lane bridge.	Completion by 2020	$16,408,452	$16,408,452
SAC24248	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elverta Road Extension	In Northern Sacramento County: Extension of Elverta Road from just south east of Sand City Drive to Don Julio Boulevard; new 6 lane roadway extension to Don Julio Boulevard with a traffic signal modification at the intersection of Elverta Road and Don Julio Boulevard and a possible realignment of Antelope Road to Elverta Road.	2021-2036	$750,000	$915,000
SAC19621	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Elverta Road Widening	Widen Elverta Rd. from Rio Linda Blvd. to Dutch Haven Blvd. from 2 to 4 lanes including landscaped median, ADA improvements, transit access and bike/pedestrian facilities.	2021-2036	$14,797,000	$23,142,000
SAC24391	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Excelsior Rd.	Widen: 4 lanes from Hwy. 16 to Calvine Rd. Includes: landscaped median, bicycle and pedestrian improvements, new traffic signal(s), traffic signal modification(s), and ADA compliant improvements.	Completion after 2036	$22,500,000	
SAC24263	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Excelsior Road Widening	In Sacramento County: Between Kiefer Boulevard/Douglas Road Extension and Jackson Road (SR16); construct and widen to 4 lanes with raised landscaped median and curb and gutter. Improvements also include the construction of a pit pump station.	2021-2036	$12,000,000	$18,767,000
SAC24799	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Fair Oaks Blvd Widening	Widen 2 to 4 Lanes from Sunset Ave to Madison Ave	Completion after 2036	$4,000,000	
SAC24749	Yes	Sacramento	Sacramento County	A- Bike & Ped	Fair Oaks Blvd. Bicycle and Pedestrian Mobility Project	Fair Oaks Blvd. between Howe Ave. and Munroe St.,: Develop Fair Oaks Master Plan, Design and construct two traffic signals within the project limits.	Completion by 2020	$1,600,011	$1,600,011
SAC24748	Yes	Sacramento	Sacramento County	A- Bike & Ped	Fair Oaks Blvd. Phase 3 (FOBI-3)	Fair Oaks Blvd., from north of Marconi Ave. to Stanley Ave., with design work continuing north to North Ave.,: Sidewalk gap closures and improvements, landscaped medians, and continuous bicycle lanes. (Emission Benefits in kg/day: 0.05 ROG, 0.04 NOx, 0.02 PM10)	Completion by 2020	$4,419,971	$4,419,971
SAC24680	Yes	Sacramento	Sacramento County	A- Bike & Ped	Fair Oaks Blvd. Sidewalks and Curbs	Fair Oaks Blvd. between Day Dr. and Arden Way: Install sidewalks, curb ramps, curb and gutter. (HSIP5-03-019)	Completion by 2020	$607,460	$607,460
SAC16800	Yes	Sacramento	Sacramento County	G- System Management, Operations, and ITS	Fair Oaks Boulevard Improvements Phase 2	In Sacramento County and Community of Carmichael: The project includes roadway and pedestrian improvements along Fair Oaks Boulevard from 400 feet south of Landis Avenue to Engle Road. Improvements along Fair Oaks Boulevard will consist of rehabilitating the roadway, bike lanes, medians, consolidated curb cuts, enhanced bus stops, separated sidewalks, landscaping and streetscape, ADA compliant improvements, and transit access. The project also includes a new traffic signal at Landis Avenue and traffic signal modifications at Grant Avenue and Engle Road that will facilitate pedestrian connections on either side of Fair Oaks Boulevard. Installation of curb, gutter, and sidewalk on the south side of Grant Avenue from the Fair Oaks Boulevard intersection to 900 feet west of Fair Oaks Boulevard is also included.	Completion by 2020	$6,056,665	$6,056,665
SAC24650	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Fair Oaks Boulevard Improvements, Phase 3	In Sacramento County and Community of Carmichael: On Fair Oaks Boulevard, 500' north of Marconi Avenue to 400' south of Landis Avenue: Various improvements to improve, safety and mobility. Construction improvements include, rehabilitating the roadway, landscaping and streetscape, medians, ADA compliant improvements, transit access, bike and pedestrian facilities, traffic signal modification at Stanley Avenue and a new traffic signal at Robertson Avenue.	Completion by 2020	$3,000,000	$3,000,000
SAC24597	Yes	Sacramento	Sacramento County	F- Transit O&M (Bus)	FFY 2010-2016 Operating Assistance for Sacramento County Rural Transit Program	Operating assistance for rural transit services within Sacramento County. Outside the Sacramento Urbanized Area.FFY 2015: $340,000FFY 2016: $340,000	Completion by 2020	$3,516,548	$3,516,548
SAC24750	Yes	Sacramento	Sacramento County	A- Bike & Ped	Florin Creek Trail/SOFA Bike & Pedestrian Improvements	Florin Creek Trail and on Florin Mall Dr.,: provide bicycle parking racks,way finding signage, and ADA street crossing improvements. (Emission Benefits in kg/day: 0.01 ROG)	Completion by 2020	$1,280,922	$1,280,922
SAC24281	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Florin Rd.	Widen: 4 lanes from Elk Grove-Florin Rd. to Vineyard Rd. Includes: a traffic signal modification at Bradshaw and a couple of new traffic signals at Hedge Ave. and Waterman Rd.	2021-2036	$23,700,000	$28,921,000
SAC24282	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Florin Rd.	Widen: 4 lanes from Vineyard Rd. to Sunrise Blvd. Includes: 3 new traffic signals at the intersections of Excelsior Rd., Eagles Nest Rd. and Sunrise Blvd.	Completion after 2036	$1,850,000	
SAC24578	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Florin Rd.	Widen: 6 lanes from Florin Perkins to Elk Grove-Florin	Completion after 2036	$500,000	
SAC24518	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Franklin Blvd Bridge Replacement	Franklin Blvd over Mokelumne River overflow, 1.8 miles north San Joaquin county line: Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge.	Completion by 2020	$11,716,001	$11,716,001
SAC24941	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Fruitridge Rd	Widen: 4 Lanes from S. Watt Ave to Bradshaw	2021-2036	$600,000	$938,000
SAC24800	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Garfield Ave	4 Lanes from Cypress Ave to Winding Way	Completion after 2036	$2,300,000	
SAC24754	Yes	Sacramento	Sacramento County	A- Bike & Ped	Garfield Ave. Bike Lanes and Pedestrian Connectivity Project	Garfield Avenue from Whitney Avenue to Madison Avenue: Install bicycle lanes, construct sidewalks (Whitney Avenue to Gibbons Drive), and install a new traffic signal at the intersection of Garfield Avenue and Engle Road. (Emission Benefits in kg/day: .03 ROG, .07 NOx, .01 PM10)	Completion by 2020	$2,500,166	$2,500,166
SAC24942	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Gerber Road	Widen: 4 lanes from Vineyard Rd. to Excelsior Rd.	Completion after 2036	$450,000	
SAC19690	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Gerber Road Widening	In Sacramento County, Gerber Road from Bradshaw Road to Vineyard Road: widen from 2 to 4 lanes.	2021-2036	$6,688,000	$10,460,000
SAC24035	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Gerber Road Widening	Widen Gerber Road between Elk Grove-Florin Road and Bradshaw Road from 3 to 4 lanes. (This road is already 3 lanes (two westbound and one eastbound)from Elk Grove-Florin Road to about 1/4-mile west of Bradshaw Road.)	Completion by 2020	$3,854,000	$3,854,000
SAC24852	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Glenborough Drive	Construct New 4 lane road between Easton Valley Parkway and Folsom Blvd.	2021-2036	$26,000,000	$31,727,000
SAC19090	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Greenback Lane Widening	Widen Greenback Lane from Fair Oaks Blvd to Hazel Ave from 4 to 6 lanes.	Completion after 2036	$3,550,200	
SAC24255	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Ave - U.S. 50 to Folsom Blvd	In Sacramento County, Hazel Avenue, between Folsom Boulevard and US Highway 50: multi-modal corridor improvements, interchange improvements, and widening of Hazel Avenue between Folsom Boulevard and US Highway 50.	2021-2036	$66,418,000	$66,418,000
SAC24626	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Ave Widening Phase 3	Sacramento County, Hazel Avenue, from Sunset Ave. to Madison Ave.: Widen from 4 to 6 lanes. New traffic signals at Roediger Lane and Phoenix Avenue. Improve existing and projected traffic congestion; enhance pedestrian and bicycle mobility in the corridor, address safety concerns, and improve the aesthetics of the corridor.	Completion by 2020	$14,649,000	$14,649,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24625	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Ave Widening, Phase 2	Sacramento County between Curragh Downs Drive and Sunset Avenue; Widen Hazel Avenue from four to six lanes. Includes appraisals and acquisitions of necessary right of way adjacent to the proposed improvements. Traffic signal modifications at Curragh Downs Drive, Winding Way, Sunset Avenue, and La Serena Drive. Improvements also include new facilities for pedestrians and bicycles including class II bike lanes and separated sidewalks. (CMAQ to only fund new bicycle and pedestrian facilities)	Completion by 2020	$23,518,000	$23,518,000
SAC23160	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Ave. extension	Construct New Road: 4 lane limited access Rd. through Aerojet s property between Easton Valley Pkwy. and Grant Line Rd./White Rock Rd.	Completion after 2036	$18,000,051	
SAC24268	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Ave. Improvements	In Sacramento County and City of Rancho Cordova: Between Easton Valley Parkway and Folsom Boulevard; joint project with the City of Rancho Cordova to construct a new 6-lane expressway with special treatment.	Completion by 2020	$15,000,000	$15,000,000
SAC23080	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Hazel Avenue	In Sacramento County, Hazel Avenue from Madison to Sacramento/Placer County line: Widen from 4 to 6 lanes.	Completion after 2036	$105,000,000	
SAC24681	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Howe Ave. Road Diet	This is phase 1 of a two-phase project. NEPA is done in Phase 1 and covers the whole project scope (both phases). The project is designed and constructed in two phases:Phase 1- between El Camino Avenue and Red Robin Drive/Tallac Street: reduce travel lanes from 4 to 2 lanes with a center two-way left-turn lane, new bike lanes and sidewalks, curb and gutter. Modify mid-block pedestrian signal. (HSIP5-03-020)Phase 2 - between Red Robin Drive/Tallac Street and Marconi Avenue: reduce travel lanes from 4 to 2 lanes with a center two-way left-turn lane, new bike lanes and sidewalks, curb and gutter. Modify the intersection of Howe Avenue and Marconi Avenue. (SAC24760)	Completion by 2020	$1,614,660	$1,614,660
SAC24760	Yes	Sacramento	Sacramento County	A- Bike & Ped	Howe Avenue Bike & Ped (Road Diet) Phase 2	Howe Avenue between Red Robin Drive/Tallac Street and Marconi Avenue: reduce travel lanes from 4 to 2 lanes with a center two-way left-turn lane (Road Diet); install new bike lanes, sidewalks, curb and gutter. Modify the intersection of Howe Avenue and Marconi Avenue. (ATP# 0092)(Toll Credits for PE, ROW, CON) (NEPA done in Phase 1, SAC24681)	Completion by 2020	$1,853,000	$1,853,000
SAC22290	Yes	Sacramento	Sacramento County	A- Bike & Ped	I-80 Bicycle / Pedestrian Crossing	In Sacramento County, conduct studies, and environmental work for a bicycle/pedestrian crossing of I-80 west of Madison Avenue.	2021-2036	$550,000	$671,000
SAC24682	Yes	Sacramento	Sacramento County	G- System Management, Operations, and ITS	Intersection Dilemma Zone Protection	Ten (10) signalized intersections throughout the city: Provide advanced "dilemma zone" protection for the high speed main street approaches at ten existing signalized intersections. (HSIP5-03-021)	Completion by 2020	$313,800	$313,800
SAC24604	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Ione Rd/Buckeye Creek Bridge Replacement	Ione Rd, over Buckeye Creek, 0.2 mi S of Meiss Rd. Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW, CON.)	Completion by 2020	$1,990,000	$1,990,000
SAC24606	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Ione Rd/Willow Creek Bridge Replacement	Ione Rd, over Willow Creek, 0.5 mi S Carbondale Rd. Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW & CON)	Completion by 2020	$2,842,000	$2,842,000
SAC24884	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Jackson Hwy (SR 16) @ Watt Ave.	Construct a new roadway grade separation interchange at the intersection of Jackson Hwy and Watt Ave.	Completion after 2036	$25,000,000	
SAC24940	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Jackson Hwy. (SR 16)	Widen: 4 Lanes from Grant Line Rd. to Murrieta Parkway	Completion after 2036	$30,000,000	
CAL15410	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Jackson Hwy. (SR 16)	Widen: 4 lanes from South Watt Ave. to Excelsior Rd. Includes: continuous left turn lane.	2021-2036	$60,000,000	$73,217,000
SAC24287	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Jackson Hwy. (SR 16)	Widen: 6 lanes from South Watt Ave. to Excelsior Rd.	Completion after 2036	$40,000,000	
SAC24688	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Jibbom St. Bridge Rehabilitation	Jibboom St. over American River, 0.1 miles north or Richards Blvd.: Rehabilitate bridge, no added lane capacity. (Toll credits for PE & CON)	Completion by 2020	$10,117,000	$10,117,000
SAC24801	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Kenneth Avenue	4 Lanes from Madison Ave to Oak Ave	Completion after 2036	$10,300,000	
SAC24769	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Kiefer blvd Over Deer Creek	Kiefer Blvd over Deer Creek, 0.7 Mi NW State Rte 16. Replace the existing functionally obsolete one lane structure with a new two lane bridge. (Toll Credits for PE & CON)	Completion by 2020	$1,820,000	$1,820,000
SAC22320	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Kiefer Blvd.	Construct New Road: 4 lanes from Bradshaw Rd. to Sunrise Blvd. Includes: bicycle and pedestrian facilities.	Completion after 2036	$51,200,000	
SAC15200	Yes	Sacramento	Sacramento County	G- System Management, Operations, and ITS	Left Turn Lanes	In Sacramento County, various locations, installation of left turn lanes.	Completion by 2020	$705,000	$739,000
SAC24570	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Lone Tree Rd.	Widen: 4 lanes from Meister Wy. to Elverta Rd.	Completion after 2036	$9,125,000	
SAC24257	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Madison Ave Widening	This project will widen Madison ave from 4 to 6 lanes between Hazel Ave and Greenback Lane in the Fair Oaks area. The project proposes to widen the roadway to accommodate two additional traffic lanes, a raised landscaped median, bicycle and pedestrian facilities, traffic signal modifications and traffic operations system upgrades, landscaping and streetscape enhancements, and soundwalls.	Completion after 2036	$22,361,626	
SAC16500	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Madison Avenue Widening	Madison Avenue from Fair Oaks Blvd. to Hazel Ave.: Widen from 4 to 6 lanes.	2021-2036	$28,246,752	$28,246,752
SAC24802	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Main Avenue	4 Lanes from Madison Ave to Oak Ave	Completion after 2036	$7,900,000	
SAC24571	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Manzanita Ave.	Widen: 6 lanes from Fair Oaks to Cypress; 4 lanes from Cypress to Madison Ave.	Completion after 2036	$1,600,000	
SAC24605	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	McKenzie Rd/Laguna Creek Bridge Replacement	McKenzie Rd, over Laguna Creek, 0.9 mi S of Arno Rd. Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge. (Toll credits for PE,R/W & CON.)	Completion by 2020	$4,994,000	$4,994,000
SAC24573	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Meister Way Rd.	Construct New Road: 4 lane Rd. from Metro Air Pkwy. to Lone Tree Rd.	Completion after 2036	$2,500,000	
SAC24574	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Meister Way Road	Construct New Road: 4 lanes from Lone Tree Rd. to Hwy. 99.	Completion after 2036	$3,640,000	
SAC24512	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Metro Air Parkway	In Sacramento County, Metro Air Parkway from north of I-5 to Elverta Road: Widen roadway from 2 to 4 lanes.	Completion by 2020	$5,320,000	$5,320,000
SAC24937	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Metro Air Parkway	Widen: from 4 to 6 Lanes from I-5 to Elverta Rd	Completion after 2036	$2,350,800	
CAL20607	Yes	Sutter	Caltrans D3	C- Maintenance & Rehabilitation	SR 99 Passing Lanes	Passing Lanes: Yuba City to Butte County Line.	2021-2036	$20,000,000	$24,406,000
SAC24609	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Michigan Bar Rd/Cosumnes River Bridge Replacement	Michigan Bar Rd, over Cosumnes River, 1.2 mi north of SR 16. Replace the existing one lane structurally deficient bridge with a new 2 lane bridge. (Toll credits for PE, ROW, & CON)	Completion by 2020	$13,783,000	$13,783,000
SAC24620	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	New Hope Rd Bridge Replacement	New Hope Rd over Grizzley Slough, 0.5 mi north of San Joaquin/Sacramento County Line: replace existing structurally deficient 2-lane bridge with a new 2-lane bridge.	Completion by 2020	$5,683,403	$5,683,403
SAC24251	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Oak Ave.	Widen: 4 lanes from Hazel Ave. to Folsom City Limits.	Completion after 2036	$16,400,000	
SAC24753	Yes	Sacramento	Sacramento County	A- Bike & Ped	Old Florin Town Streetscape Phase 2	Florin Rd. out to Power Inn Rd. to the west and Florin Perkins Rd/French Rd. to the east.,: Augment phase 1 of the streetscape by installing continuous separated sidewalks, bicycle lanes, improved transit facilities, median channelization, and improved street lighting. (CMAQ Emission Reductions in kg/day: 0.02 ROG, 0.02 NOx 13, 0.01 PM10)	Completion by 2020	$4,516,947	$4,516,947
SAC24714	Yes	Sacramento	Sacramento County	A- Bike & Ped	Pedestrian Improvements, Various Locations	Various locations throughout Sacramento County: Construct sidewalks, curb ramps, curbs and gutters. (HSIP6-03-017)	Completion by 2020	$1,265,000	$1,265,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24715	Yes	Sacramento	Sacramento County	A- Bike & Ped	Pedestrian Improvements, Various Locations	Various locations in Sacramento County: Construct sidewalks, curb ramps, curbs and gutters. (HSIP6-03-018)	Completion by 2020	$1,576,618	$1,576,618
SAC24274	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Power Inn Rd Widening	This project will include the road widening of Power Inn Rd between Florin Rd and Elder Creek Rd to accommodate two through lanes in each direction, a center two way left turn lane, a 6-foot bike lane on the east side, and a 5-foot bike lane with curb, gutter, and sidewalk on the west side.	2021-2036	$1,662,000	$2,028,000
SAC24803	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Power Line Road	4 Lanes from Road A to Placer County Line	Completion after 2036	$7,200,000	
SAC24330	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Prairie City Road Widening	Widen Prairie City Road from 2 to 4 lanes between US 50 and White Rock Road.	2021-2036	$11,000,000	$13,423,000
SAC24804	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Rio Linda Blvd	(Elverta Specific Plan Mitigation) 4 Lanes from Elverta Rd to Sorento Rd	Completion after 2036	$8,500,000	
SAC24805	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Rio Linda Blvd	4 Lanes from Elkhorn Blvd to Elverta Rd	Completion after 2036	$8,250,000	
SAC24935	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Rio Linda Blvd	Widen: 4 Lanes from Ascot Ave to Elkhorn Blvd	Completion after 2036	$433,800	
SAC24617	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Rio Linda Blvd Bridge Replacement	Rio Linda Blvd over North Channel of Dry Creek, 0.8 mi south of Elkhorn Blvd: Replace 2-lane bridge with new 2-lane bridge.	Completion by 2020	$2,338,764	$2,338,764
SAC24806	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Road A	4 Lanes from Power Line Road to Lone Tree Rd	Completion after 2036	$4,000,000	
SAC24768	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Road Rehab	In Sacramento County: 1) on Palmer House Drive between Gerber Road and Skander Way, and 2) on Garfield Avenue between Verner Avenue (south) and Greenback Lane; overlay with rubberized or conventional asphalt concrete, repair damaged areas of the roadway (base repairs), install curb ramps, adjust utility covers, grind the existing pavement to conform the overlay (wedge grind), replace traffic loop detectors, replace striping, and other work as necessary to complete the overlay. The project will also install bike lanes on Palmer House Drive from Renton Way to Skander Way, and on Garfield Avenue from Verner Avenue (south) to Greenback Lane.	Completion by 2020	$1,569,435	$1,569,435
SAC24413	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Road Rehab	In Sacramento County, various locations: rehabilitate roadways with conventional or rubberized asphalt over existing pavement, ADA compliant upgrades and bike lane improvements; construction also includes base repair, raising manholes and utility valve covers to match pavement surface and grinding down sections of the existing pavement prior to paving. Locations include: 1. Palmerhouse Drive, Gerber Rd. to Florin Rd., 2. Northrup Ave., Howe Ave. to Watt Ave., 3. Grantline Rd, Mosher Rd. to Elk Grove Rd., 4. El Centro Rd., San Juan Rd. to Arena Blvd. 5. Power Inn Rd., Elk Grove City Limit to Calvine Rd. 6. Garfield Ave., Auburn Blvd. to Verner Ave. 7. McClaren Dr., Kingsford Dr. to Arden Way 8. Central Ave., Kenneth Ave. to Hazel Ave. 9. Watt Ave., Antelope Rd. to Elverta Rd. 10. Huntsman Dr., Rosemont Dr. to Mayhew Rd. (CMAQ funds are for new bicycle lanes.) (Emissions in kg/day: 0.11 ROG, 0.08 NOx, 0.03 PM10)	Completion by 2020	$7,840,122	$7,840,122
SAC19680	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Roseville Rd.	Widen: 4 lanes from Watt Ave. to Walerga Rd.	2021-2036	$38,422,000	$60,090,000
SAC24575	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Roseville Rd.	Widen: 4 lanes from Antelope Rd. to Placer County line.	Completion after 2036	$6,750,000	
SAC24581	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Routier Road Extension Happy Ln.	Road Extension: 4 lanes from Keifer Blvd. to Jackson Rd (Rte 16)	Completion after 2036	$1,500,000	
SAC24584	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Routier Road Extension Happy Ln.	Road Extension: 4 lanes from Old Placerville Rd. to Kiefer Blvd.	Completion after 2036	$1,300,000	
SAC23540	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	S. Watt Ave.	Widen: 6 lanes from Elder Creek Rd. to Fruitridge Rd.	2021-2036	$20,000,000	$31,279,000
SAC23860	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	S. Watt Ave. / Elk Grove Florin Rd.	Widen: 6 lanes from Fruitridge Rd. to Kiefer Blvd.	2021-2036	$10,000,000	$15,639,000
SAC24259	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	S. Watt Ave. / Elk Grove Florin Rd.	Widen: 6 lanes from Folsom Blvd. to Calvine Rd.	Completion after 2036	$3,250,000	
SAC24807	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Sorento Rd	Widen: 4 Lanes from Elverta Rd to Placer County Line	Completion after 2036	$6,000,000	
SAC19290	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	South Watt Avenue Widening	Widen South Watt Avenue from Florin Road to Jackson Road (Route 16) from 2 to 4 lanes	2021-2036	$18,871,917	$29,514,000
SAC24632	Yes	Sacramento	Sacramento County	A- Bike & Ped	Stevenson Ave. Sidewalks (SRTS)	Stevenson Ave. from the southeast corner of Anna Kirchgater Elementary School to the existing sidewalk near Marjon Way: Construct sidewalk, curb, gutter, and curb ramps. SRTS3-03-007	Completion by 2020	$768,700	$768,700
SAC19700	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Stockton Blvd.	Widen: 6 lanes from 65th Ave. to Hwy. 99.	Completion after 2036	$23,800,000	
SAC19710	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Sunrise Blvd.	In Sacramento County: Sunrise Blvd. between Jackson Highway and Grantline Road; Widen from 2 to 4 lanes	2021-2036	$12,000,000	$18,767,000
SAC24261	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Sunrise Blvd.	Widen: from Madison Ave. to Gold Country Blvd. ITS Strategies and partial grade separation at Fair Oaks Blvd and transit enhancements	Completion after 2036	$6,162,807	
SAC24808	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Sunset Ave	4 Lanes from San Juan Avenue to Fair Oaks Blvd	Completion after 2036	$6,100,000	
SAC24716	Yes	Sacramento	Sacramento County	G- System Management, Operations, and ITS	Traffic Signal Upgrades	At 32 intersections throughout Sacramento County: Upgrade traffic signals. (HSIP6-03-019)	Completion by 2020	$1,060,900	$1,060,900
SAC24522	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Twin Cities Rd Bridge Replacement	Twin Cities Rd, over Snodgrass Slough: Replace the existing 2 lane structurally deficient structure with a new 2 lane structure.	Completion by 2020	$17,550,002	$17,550,002
SAC24772	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Tyler Rd Over Georgiana Slough	Tyler Is Br Rd over Georgiana Slough, 1.5 Mi E of Isleton. Replace the existing 2 lane bridge with a new 2 lane bridge. Toll Credits for PE & CON.	Completion by 2020	$13,618,000	$13,618,000
SAC24283	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Vineyard Rd.	Construct New Road: Enhanced 2 4 lanes from Gerber Rd. to Jackson Hwy.	Completion after 2036	$2,900,000	
SAC24036	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Vineyard Road Bridge Replacement	Vineyard RD, over Laguna Creek, 0.8 MI North of Calvine RD. Replace existing 2 lane bridge with new 2 lane bridge. [See also SAC24156]	Completion by 2020	$4,141,360	$4,141,360
SAC24809	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	W. 6th Street - Rio Linda	4 Lanes from Elkhorn Blvd to Elverta Rd	Completion after 2036	$1,000,000	
SAC24687	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Walnut Grove Bridge Rehab	In Walnut Grove, Walnut Grove crossing, over Sacramento River: Rehabilitate existing bridge.	Completion by 2020	$2,769,375	$2,769,375
SAC24285	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Waterman Road Widening	In Sacramento County: Between Vintage Park Drive to Florin Road; widen existing roadway to 4 lanes and extend roadway from Gerber Road to Florin Road with an at-grade rail road crossing.	2021-2036	$20,000,000	$31,279,000
SAC24885	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Waterman Road Widening	In Sacramento County: Between Florin Rd. to Jackson Rd.; construct roadway to 4 lanes	2021-2036	$16,500,000	$25,805,000
SAC24939	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Watt Ave	Widen: 6 Lanes from Antelope Rd Elverta Rd to Placer County Line	Completion after 2036	$327,000	
SAC24352	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Watt Ave.	Construct New Interchange: Watt Ave. / Folsom Blvd.	Completion after 2036	$7,500,000	
SAC24585	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Watt Ave.	Widen: 6 lanes from I-80 to Palm Ave. Don Julio Blvd.	2021-2036	$16,250,000	$19,830,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC15750	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Watt Avenue Couplet	In Sacramento County, Watt Ave: Between Palm Ave. Don Julio Blvd. and Antelope Rd. Elkhorn Blvd. widen to 6 lanes; 3 lanes north bound on Watt Ave and 3 lanes southbound on 34th St; smart growth st. with proposed BRT/HI Bus - exclusive lanes.	2021-2036	$15,600,000	$19,036,000
SAC15720	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Watt Avenue Widening	In Sacramento County, Watt Ave.: Between Elkhorn Blvd and Antelope Rd widen from 4 to 6 lanes	2021-2036	$9,641,800	$15,079,000
SAC24662	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	White Rock Road - Grant Line Rd. to Rancho Cordova City Limits	Widen White Rock Road, from Grant Line Road to Rancho Cordova easterly City limits, from 2 to 4 lanes. Environmental to be cleared as part of SAC24470.	Completion by 2020	$10,000,000	$10,000,000
SAC24936	Project Development Only	Sacramento	Sacramento County	B- Road & Highway Capacity	Winding Way	Widen: 4 Lanes from Auburn Blvd to San Juan Ave Garfield Ave	Completion after 2036	$1,432,500	
SAC24619	Yes	Sacramento	Sacramento County	C- Maintenance & Rehabilitation	Winding Way Bridge Replacement	Winding Way over Chicago Creek, 0.1 mi west of Chicago Ave: Replace existing functionally obsolete 2-lane bridge with a new 2-lane bridge.	Completion by 2020	$2,787,800	$2,787,800
SAC24622	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Zinfandel Drive Extension & Realignment	In Sacramento County: Zinfandel Drive, from Douglas Rd. to 7,100 ft south of Douglas Rd.: reconstruct Zinfandel Drive as a two lane road. From 7,100 ft south of Douglas Rd. to Kiefer Blvd.: extend Zinfandel Dr. as a two lane road on a slightly different alignment than the existing dirt road. Construct concrete box culvert over creek just north of Kiefer Blvd.	Completion by 2020	$5,873,000	$5,873,000
SAC20240	Yes	Sacramento	Sacramento County	B- Road & Highway Capacity	Zinfandel Road Widening	Zinfandel Drive, from Southern boundary of the Villages of Zinfandel to Douglas Road: Widen from 2 to 4 lanes with a raised landscaped median. (For other phases see SAC24473 and SAC24467)	2021-2036	$1,050,000	$1,642,000
SAC24222	Yes	Sacramento	Sacramento County and City of Rancho Cordova	D- Programs & Planning	Jackson Hwy. (SR 16) from Excelsior to Grant Line Road: Project Development and Operational Improvements	Complete project analysis efforts, as needed, to identify and implement operational improvements to improve safety and traffic flow along the corridor in the near-term. Improvements to study may include intersection improvements, access management strategies, and traffic signalization enhancements that benefit travel for automobiles and commercial vehicles. The project listing also allows other project development activities to advance so the corridor segment can eventually become a four lane facility in a manner that is consistent with the City and County's design guidelines. Rancho Cordova would contribute to portions of work between Sunrise and Grant Line within the city's limits.	2021-2036	$5,000,000	$6,101,000
SAC24976	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	LRV Cab Cameras	Install new in cab surveillance camers in RT's light rail fleet to comply with CPUC General Ofer 172	Completion by 2020	$305,482	$320,000
SAC24860	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	12th & I Street Light Rail Station ADA Improvements	This project would make ADA improvements at the 12th & I Street Light Rail Station. Scope includes constructing a new platform and realigning the track.	2021-2036	$11,222,078	$13,694,000
REG17953	Yes	Sacramento	Sacramento Regional Transit District	A- Bike & Ped	29th St. Light Rail Station Enhancements	29th St. Light Rail Station, located at R St. between 29th St. and 30th St.: Add two shelters, a surveillance camera, flashing pedestrian crossing signs, two visible message signs, and other transit amenities. (Emission Benefits in kg/day: ROG 0.15, NOx 0.15, PM10 0.06)	Completion by 2020	$280,500	$280,500
REG18019	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	ADA Rehabilitation/ Renovation	Rehabilitation/ Renovation to Enhance ADA Accessibility at Transit Stops/Stations. Provide enhanced system access for persons with disabilities.	Completion by 2020	$356,643	$356,643
REG18011	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	ADA Service Vehicle Replacement	Replace fifty paratransit vehicles to provide complementary ADA services within the Regional Transit District area.	Completion by 2020	$4,335,000	$4,335,000
REG17962	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	ADA Transition Plan Improvements	Passenger Amenities: Complete facility modifications, as required, in order to make all RT facilities accessible.	2021-2036	$3,281,885	$5,133,000
SAC24977	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Amtrak-Folsom Limited Stop Service	Enhance light rail capacity on the Gold Line to the city of Folsom, light rail system modifications that will give RT the capacity to provide limited stop express service.	Completion by 2020	$12,000,000	$12,587,000
SAC24858	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Artwork at Light Rail Stations	This project is to maintain existing artwork at light rail stations	2021-2036	$70,000	$109,000
SAC24869	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Automatic Passenger Counters	Passenger counters for 97 LRVs to facilitate NTD reporting. 8 counters per LRV.	2021-2036	$1,052,070	$1,284,000
SAC24810	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Bicycle/Pedestrian Improvements Study	Conduct study determining amenities to be provided at each stop, design choices, maintenance of waiting areas, safe, attractive access to stops.	Completion by 2020	$300,000	$315,000
SAC24978	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Biennial Bridge Inspection Repairs	Inspection and repair of Bridge stucture elements as found in the periodic inspection.	2021-2036	$1,295,843	$2,027,000
SAC24979	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Building Access System Upgrade	Upgrade card based building access system	Completion by 2020	$111,507	$117,000
SAC24874	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Bus Maintenance Facility #1 Rehabilitation	Rehabilitate the District's existing Bus Maintenance Facility.	Completion by 2020	$10,000,000	$10,489,000
REG18012	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Bus Stop Improvements- Citrus Heights	Bus turn outs and associated improvements.	Completion by 2020	$1,976,604	$1,976,604
SAC24596	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (Bus)	City of Folsom Stage Lines Operating Assistance FFY 2011-2014	City of Folsom (Subrecipient) Operating assistance, preventive maintenance, and ADA operating assistance for transit services within the City of Folsom. Sacramento Urbanized Area.FFY 2011 preventive maintenance: $265,000FFY 2011 ADA operations: $130,000FFY 2012 preventive maintenance: $278,000FFY 2012 ADA operations: $136,000FFY 2014 operating assistance: $184,538FFY 2014 preventive maintenance: $137,446FFY 2014 ADA operations: $89,395	Completion by 2020	$1,663,877	$1,663,877
SAC24637	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	City of Folsom Stagelines Replacement of Cutaway Buses	City of Folsom Stagelines (Subrecipient) Replace up to six 22-foot Cutaway Buses including related equipment and spare parts.	Completion by 2020	$542,475	$542,475
REG18025	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	CNG Paratransit Vehicle Replacement	Replace up to eleven CNG powered paratransits vehicles to provide services to elderly and disabled passengers. (Toll Credits for CON. Emission Benefits in kg/day: 0.07 ROG, 1.45 NOx, 0.03 PM10.)	Completion by 2020	$1,571,200	$1,571,200
REG18014	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	CNG Replacement Buses & Related Spare Parts	Replace up to twenty 40-foot CNG buses including related equipment and spare parts. Procurment for buses and parts to be in three phases. (Uses Toll Credits for local match). (Emission Benefits: 77 kg/day NOx)	Completion by 2020	$28,393,427	$28,393,427
SAC24777	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Communication Equipment Replacement	Replace radio communication equipment as needed. These funds will be used to purchase hand held radios, vehicle radios, rail car radios, MDCs, radio batteries, and equipment that is used to charge these radios.	2021-2036	$1,455,000	$2,276,000
SAC24778	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Data Center Redundancy & Reliability Equipment	Construct secondary data center @ RT's Light Rail Facility (Academny Way) as a backup in the event of a failure at the primary data center at 1225 R St	Completion by 2020	$53,709	$56,000
REG17812	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Data Warehouse Upgrade	Technology Upgrade: Upgrade the Data Warehouse that is currently used by RT staff for enterprise reporting, data analysis, and application data storage and presentation services. Once upgraded, the new data warehouse will provide significant new functionality and performance for RT staff for analysis, reporting, and business intelligence.	2021-2036	$175,000	$214,000
REG18023	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Dos Rios Light Rail Station	On Blue Line light rail, on the east side of 12th St., south of Richards Blvd.: build new light rail station. The station is part of the redevelopment of Twin Rivers public housing development. (Emission Benefits in kg/day: 1.02 ROG, 0.97 NOx, 0.58 PM10)	Completion by 2020	$9,500,000	$9,500,000
REG17983	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Enhance Public Web Based Services (Phase II)	Technology Upgrade: Portal for Real Estate for acquisitions and asset management.	2021-2036	$108,363	$169,000
SAC24779	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	ERP System Disaster Response	Upgrade RT's Enterprise Mgmt System	Completion by 2020	$245,000	$257,000
REG17980	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	FIBER Infrastructure Management Application	Technology Upgrade: Develop a FIBER Infrastructure Management Application.	2021-2036	$120,000	$146,000
REG17952	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Fulton Ave. Bus Shelters	Along Fulton Ave., from Arden Wy. to Auburn Blvd.: Design and install 8 to 11 bus shelters, including easements. (Emission Benefits in kg/day: ROG 0.13, NOx 0.13, PM10 0.05)	Completion by 2020	$169,435	$169,435
REG17816	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	General Facilities Maintenance & Improvements	Transit Capital/Operations: Implement general facility improvements and maintain facilities throughout the district as needed.	2021-2036	$12,724,439	$19,900,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
REG18009	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	General Facility Improvements	Sacramento Regional Transit District: provide for various minor upgrades and improvements to district facilities, such as roof replacement, better lighting, security systems, ventilation, accessibility modifications, and safety enhancements.	Completion by 2020	$764,241	$764,241
REG17943	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Green Line (DNA) Light Rail - Overall	This project will redefine a Minimum Operable Segment (MOS) 2 and a MOS 3. REG17935 includes the Final Design and Construction for the project (excluding MOS-1).This phase of the Green Line to the Airport (DNA) Light Rail Project will consist of two discreet, yet connected efforts. For the segment of the Green Line near and adjacent to the Sacramento Intermodal Transfer Center (SITF), the effort will entail the preparation of Draft EIS (and EIR), its circulation for public review and comment, addressing the comments and will culminate with a Final EIS (and EIR). The segment of the project adjacent to the SITF will be coordinated with on-going Sacramento Streetcar planning, environmental review, and design development. For the remainder of the 13-mile corridor, the effort will entail the preparation of a Draft EIS (and EIR) only and its circulation for public review and comments. An MOS will also be identified for this segment. The effort will also evaluate low-floor LRT vehicles and their integration into the RT system, evaluate LRT vehicle maintenance locations for the Green Line, evaluate downtown Sacramento rail/traffic effects of the proposed service, prepare the necessary technical information and for a New Starts evaluation under MAP-21, and involve the community and stakeholders in an outreach program for both efforts. Advanced conceptual engineering and preliminary engineering in key areas with potential for environmental impacts that may require mitigation strategies for the EIS will be completed.	Completion by 2020	$14,810,336	$14,810,336
REG17935	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Green Line: MOS2 & MOS3	Extend rail from Richards Blvd. to Sacramento International Airport	2021-2036	$698,286,782	$1,092,075,000
SAC24780	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Handheld Smart Card Reader	Purchase hand held smart card readers	Completion by 2020	$116,000	$122,000
SAC24817	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Arden Way	Develop 9-mile enhanced bus corridor on Arden Way. Include 7 artic buses	2021-2036	$20,635,000	$25,180,000
SAC24813	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Auburn Blvd	Develop an enhanced bus corridor along 6.5 miles along Auburn Boulevard between Watt/I-80 and Citrus Heights. Include 5 artic buses. (precursor to LRT to Citrus Heights).	Completion by 2020	$14,700,000	$15,419,000
SAC24879	Project Development Only	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Easton Valley Pkwy	Develop 10.5-mile BRT corridor on Easton Valley Pkwy. Include 8 artic buses	Completion after 2036	$48,226,000	
SAC24814	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on El Camino Ave	Develop an enhanced bus corridor along 15.5 miles Sunrise Mall to the Royal Oaks station. Include 11 artic buses	2021-2036	$34,315,000	$41,874,000
SAC24815	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Florin Rd	Develop Hi Bus corridor on Florin Road with enhanced bus from JFK High School to Old Town Florin (8 miles), and BRT from Old Town Florin to Bradshaw (3.5 miles). Include 9 artic buses	2021-2036	$34,547,000	$42,157,000
SAC24877	Project Development Only	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Freeport Blvd	Develop 8-mile enhanced bus corridor on Freeport blvd. Include 6 artic buses	Completion after 2036	$18,085,000	
SAC24878	Project Development Only	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Jackson Rd	Develop 10-mile BRT corridor along the Jackson Hwy Corridor. Include 8 artic buses	Completion after 2036	$46,371,000	
SAC24816	Project Development Only	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Marconi Ave	Develop 11-mile enhanced bus corridor on Marconi Ave from American River College to the Power Inn light rail station. Include 8 artic buses	Completion after 2036	$24,577,000	
SAC24870	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Stockton Blvd	Develop an enhanced bus corridor along 12 miles along Stockton Boulevard between Downtown Sacramento and Cosumnes River College. Include 9 artic buses	Completion by 2020	$27,127,000	$28,454,000
SAC24818	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Sunrise South	Develop 8-mile enhanced bus corridor on Sunrise Blvd. Include 6 artic buses	2021-2036	$18,085,000	$28,284,000
SAC24812	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Hi-bus on Watt Ave	Develop a 12.5 mile Hi Bus corridor on Watt Avenue between Watt/Manlove station to Placer County Line. Include 9 artic buses	Completion by 2020	$56,804,000	$59,582,000
REG18024	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Horn Light Rail Station	On the Gold Line, between Butterfield and Mather/Mills stations, at Horn Rd. and Old Winery Pl, construct new light rail station. (Emission Benefits in kg/day: 0.27 ROG, 0.26 NOx, 0.15 PM10)	Completion by 2020	$3,600,000	$3,600,000
REG17991	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Implement Document Archival System	Technology Upgrade: Implement a document archival system that converts financial and engineering documents to an electronic and/or microfilm format.	Completion by 2020	$224,000	$235,000
REG17832	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Integrated Contract Admin System (ICAS) Replacement	Technology Upgrade: Replace the Integrated Contract Administration System (ICAS).	Completion by 2020	$160,150	$168,000
REG17833	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Intelligent Transportation Systems	Minor ITS Improvement: Support the Intelligent Transportation Systems Strategic Deployment Plan for the Sacramento Region being coordinated by the Sacramento Area Council of Governments (SACOG).	2021-2036	$9,048,000	$14,150,000
REG18022	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Landscaping - ROW Improvements	Landscaping improvements to existing sound walls located along Folsom Boulevard and the south side of the Sacramento Regional Transit light rail Gold Line within the City of Rancho Cordova.	Completion by 2020	$120,803	$120,803
SAC24781	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	LED Lighting Retrofil	This project is to replace existing High intensity Discharge (metal halide or high pressure sodium) pole lights with LED lighting at light rail stations, park-and-ride lots, light rail Metro yard, and bus and administrative parking lots.	Completion by 2020	$1,880,000	$1,972,000
SAC24862	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Light Rail Control Center Upgrade (LRCC)	This project is to improve the Light Rail Control Center. Scope includes physical upgrades, probably new control center, computers displays, and external interfaces to Passenger Information Signs + RR interlocking SCADA, and communications system upgrades	2021-2036	$4,500,000	$5,491,000
REG17999	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Light Rail Crossing Enhancements	Transit Capital/Operations: Purchase and install, as needed, a variety of components in the grade crossing mechanisms.	2021-2036	$1,826,624	$2,857,000
SAC24782	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Light Rail Digital Messaging control System	Develop new central management software system for RT's digital Light Rail public messaging systems	Completion by 2020	$103,250	$108,000
REG17966	Yes	Sacramento	Sacramento Regional Transit District	A- Bike & Ped	Light Rail Station Pedestrian Improvements	Pedestrian Improvements: At the Fruitridge, Cosumnes River College, and City College light rail stations, improve pedestrian access.	2021-2036	$8,852,113	$10,802,000
REG18008	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Light Rail Station Shelter Improvement Program	Passenger Amenities: Add and improve light rail station shelters.	2021-2036	$1,136,000	$1,386,000
REG17940	Yes	Sacramento	Sacramento Regional Transit District	A- Bike & Ped	Light Rail Station/Bus Stop Enhancements	Enhancement of Sacramento Regional Transit District bus stops including but not limited to: addition of i-stops; benches and trash cans; security improvements, and installation of braille signage. Enhancement of Light Rail Stations including but not limited to: lighting improvements; replacing braille signage; improved pedestrian access to stations; security improvements; and audio enhancements to signage.	Completion by 2020	$1,186,250	$1,186,250
SAC24859	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Light Rail Vehicle Specification Development	Develop procurement specifications for the light rail vehicles prior to planned replacements and purchases for light rail extensions.	Completion by 2020	$86,261	$90,000
REG15880	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	LRV Mid-Life Overhaul	SRTD mid-life overhaul of light rail vehicles. (FFY 2007 funds will rehabilitate 6 to 8 vehicles.) (FTA 5307 funds are unused funds from FFY 2005)	Completion by 2020	$9,946,412	$9,946,412
REG17930	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Major LRT Station Enhancements	Passenger Amenities: Light rail stations. Includes:parking lot/sidewalk repairs, mini high shelters, slurry seal, restriping, curb replacement, planter construction, landscape replanting, drainage improvements, and fencing repairs.	2021-2036	$31,768,589	$49,684,000
SAC24783	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Metro Light Rail Yard Expansion	Modify, reconfigure and expand the Metro light rail yard (or other terminal yards). Add storage yard tracks at Academy Way site	2021-2036	$10,521,000	$12,839,000
REG18005	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Metro West LR Maintenance Facility (Specialty Steel)	Transit Capital/Operations: Renovate building at 2531 Land Avenue for use as a light rail body shop.	Completion by 2020	$1,026,660	$1,077,000
REG18028	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	Neighborhood Ride Vehicle Replacement	Purchase 14 Neighborhood Ride CNG Vehicles to replace vehicles which have surpassed their useful lives.	Completion by 2020	$1,919,114	$1,919,114

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
REG17975	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Network Backup and Data Archive Upgrade	Technology Upgrade: Upgrade/replace RT's data backup and archive system.	Completion by 2020	$104,320	$109,000
REG17967	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Network Firewall Upgrade	Technology Upgrade: Upgrade RT's network security infrastructure by retiring and replacing the aging and obsolete network firewall.	2021-2036	$32,030	$39,000
SAC24864	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	New Light Rail Stations	Project is to build stations previously deferred during construction of the light rail system: such as Dos Rios, Horn, T St, Mineshaft, Ramona or others.	2021-2036	$17,000,000	$26,587,000
SAC24811	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	New Transit Oriented Development-Related Professional Services	Assistance and approvals in developing TOD projects on RT property	2021-2036	$225,000	$352,000
REG17959	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Noise Attenuation Soundwalls	Transit Capital/Operations: construct soundwalls at various locations along the light rail system.	2021-2036	$1,722,245	$2,693,000
REG16470	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	Northeast Corridor Enhancements	Double track existing single track sections and improve alignment of Northeast Corridor LRT, upgrade the traction power system and signaling to provide limited-stop service, make enhancements to yard track and maintenance facility, and installation of communications infrastructure. (Local Agency Funds are from selling a parcel of land.)	Completion by 2020	$40,000,000	$40,000,000
SAC24784	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Operations Computer Systems Upgrades	Computer Upgrades and replacements for various RT operating/support departments	Completion by 2020	$205,000	$215,000
PAR10031	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (Demand Response)	Paratransit, Inc. Mobility Training and Job Search Shuttle Service for the Homeless	Paratransit, Inc. (Subrecipient): In Paratransit's service area: provide transportation to all "lifeline" destinations except shopping and day care facilities. Provide service to medical facilities, job training and resources, the Department of Human Assistance, the Department of Rehabilitation, one stop career centers, the Department of Motor Vehicles, and Social Security Administration.	Completion by 2020	$250,000	$250,000
SAC24866	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Planning/Studies	"planning studies" to be conducted by RT Planning	2021-2036	$500,000	$782,000
SAC24785	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Police Vehicle Mobile Data Computer Terminals Replacement	The Sacramento Police Department will begin implementation of a program to replace their entire inventory of Mobile Data Computers that are installed in their marked patrol vehicle fleet. This work, called the "NextGen Project", will replace the outdated and discontinued computers in the patrol cars that are used for all types of emergency call dispatching, information gathering and dissemination, criminal history and records checks, and officer safety information.	2021-2036	$135,296	$165,000
SAC24867	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Professional Development Efforts for Planning Staff	"Professional development efforts" to be completed by RT Planning	2021-2036	$200,000	$313,000
REG18026	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Rail Profiling	System-wide rail surface profiling/grinding to regain the original design parameters for rail surface.	Completion by 2020	$300,000	$300,000
REG17946	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	Retrofit 21 UTDC Light Rail Vehicles	Retrofit 21 UTDC light rail vehicles purchased from Valley Transit.	Completion by 2020	$33,150,546	$33,150,546
SAC24855	Yes	Sacramento	Sacramento Regional Transit District	C- Maintenance & Rehabilitation	Road/Curb Repair	RT road/curb repair on its right of way adjacent to locations where City/County of Sacramento road/curb repair.	2021-2036	$6,208,872	$9,710,000
REG17955	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (Demand Response)	RT ADA Operations	ADA operations for transit services within the RT District Paratransit Area. Sacramento Urbanized Area.FFY 2015 : $2,100,000FFY 2016 : $2,100,000FFY 2017 : $2,100,000FFY 2018 : $2,100,000	Completion by 2020	$18,782,731	$18,782,731
REG17957	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (General)	RT Operating Assistance	Continued operation and maintenance of bus, light rail, and paratransit services. (Local Agency Funds include revenues from investments, advertising, commercial real estate,sales and contracted services.)	Completion by 2020	$968,052,419	$968,052,419
REG17956	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (General)	RT Preventive Maintenance	Provide for scheduled and unscheduled maintenance for bus and light rail revenue vehicles and facilities.	Completion by 2020	$260,445,387	$260,445,387
SAC24786	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	RT Projects funded by future Prop 1B Transit Security Funds	Various RT Transit Security Projects Funded by Future Proposition 1B Transit Security Funds	Completion by 2020	$3,769,521	$3,954,000
SAC24868	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Sacramento Regional Transit Internship Program	Provide experience for students pursuing a career in transit planning field: compiling statistical data, outreach, data analysis and validation, preparation of reports, conducting customer surveys and passenger counting (annual program).	2021-2036	$750,000	$1,173,000
REG17917	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Security System Enhancement	Technology Upgrade: Enhance security throughout the RT'system. Includes: fiber and DVR.	2021-2036	$4,913,283	$5,996,000
REG17970	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Server Clustering	Technology Upgrade: Place new equipment and clustering software in order to build a highly available and extremely resilient server infrastructure.	2021-2036	$25,878	$32,000
REG17864	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Server Replacement	Technology Upgrade: Triennial server replacement program to retire and replace aging and obsolete servers.	2021-2036	$66,999	$82,000
SAC24871	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Shop Equipment - Bus	Purchase a variety of equipment as needed for vehicle and shop maintenance.	2021-2036	$2,585,000	$4,043,000
REG17867	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Signal Improvements	Technology Upgrade: Upgrade the Union Switch and Signal controllers to the new design being built with the AMTRAK project.	Completion by 2020	$240,000	$252,000
REG15053	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	South Sacramento Light Rail (Blue Line) - Phase 2	In Sacramento, extend light rail from the terminus of South Line Phase 1 (Blue Line) at Meadowview Station further south to Cosumnes River College (CRC). Includes 4.2 miles of track, 4 new stations, and 2700 park & ride spaces. (The SRTD planned date of revenue service is September 2015.) The total capital cost is estimated to be $270,000,000 in YOE dollars. RT is seeking $135,000,000 in Section 5309 New Starts funds, a 50% federal share. The Section 5309 New Starts Funds are broken out as follows: $4,410,000, FTA 5309 New Starts, FFY 2010, $6,930,000, FTA 5309 New Starts, FFY 2011, $24,011,926, FTA 5309 New Starts, FFY 2012, $53,988,074, FTA 5309 New Starts, FFY 2013, $45,660,000, FTA 5309 New Starts, FFY 2014, The non New-Starts balance of funds totaling $135,000,000 will come from the following sources: $7,100,000 CMAQ, $8,100,000 TCRP, $4,307,000 STIP, $10,713,141 State Prop 1B PTMISEA, $7,200,000 State Prop 1B SLPP, $156,660 STA, $25,265,683 Measure A Sales Tax, $1,481,421 Laguna Community Facilities District (LCFD), $4,198,388 Elk Grove/West Vineyard Fee District, $544,057 Vineyard Transit Development Fees, $65,933,651 RT Revenue Bonds.	Completion by 2020	$270,000,000	$270,000,000
REG18027	Yes	Sacramento	Sacramento Regional Transit District	F- Transit O&M (Bus)	SRTD JARC Operating Assistance	The project will maintain current bus service levels for nine key routes (19, 24, 26, 51, 54, 55, 56, 75, 80) serving low-income, transit dependant residents connecting them to work, education and services.	Completion by 2020	$2,546,784	$2,546,784
REG17907	Yes	Sacramento	Sacramento Regional Transit District	C- Maintenance & Rehabilitation	SRTD Paving Restoration Program	Pavement Rehabiltation: Sacramento Regional Transit District. Includes: repairing paving as needed in the RT system that is deteriorated and needs to be repaired/replaced to maintain a state of good repair.	2021-2036	$3,000,000	$4,692,000
REG17300	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Major)	SRTD Satellite Bus Maintenance Facility #2 Phase 1	In Sacramento: Acquire land and construct a new bus maintenance facility in McClellan Park. Plans for this facility include two fueling stations, one land bus wash, and a revenue collection center. Also includes site work for parking and building modifications to support 125 buses. A Phase 2 will follow.	Completion by 2020	$25,426,630	$25,426,630
REG17995	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Sunrise Siding (Side Track Switch)	Transit Capital/Operations: At the Sunrise interlocking, add a turnout to the east end of the tail track. This would turn the tail track into a siding providing two ways for trains to enter and exit the siding.	2021-2036	$227,023	$355,000
REG17868	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Supervisory Control & Data Acquisition System (SCADA)	Technology Upgrade: Design, procure, and install SCADA equipment into traction power substations to control and monitor traction power distribution systems.	2021-2036	$2,167,264	$2,645,000
SAC24787	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Surveillance and Security Facilities Enhancement	New facility for surveillance systems monitoring	Completion by 2020	$252,000	$264,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SAC24863	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	System wide Impacts of Low-Floor Light Rail Vehicles Environmental Clearance and Design	RT's next light rail vehicle (LRV) procurement, likely associated with the Green Line to the Airport project, will include low-floor vehicles. This study will include technical evaluation associated with type of vehicle to be specified (light rail vehicle, European tram, etc.) and the physical design requirements of the new and existing light rail stations. The evaluation of existing stations will need to detail the level of effort (design and construction) needed to accommodate low-floor vehicles. Preliminary cost estimates (by station) and schedule of design and construction activities will also be developed. Recommendations for maintaining light rail operations while the station construction activities are under way will also be developed.	Completion by 2020	$565,558	$593,000
REG18015	Yes	Sacramento	Sacramento Regional Transit District	A- Bike & Ped	Three-Capacity Bicycle Racks for Buses	Purchase approximately 250 bicycle racks with capacity to hold three bicycles each, which includes 14 racks as spares. (Emission Benefits in kg/day: 2 ROG, 2 NOx, 2 PM10)	Completion by 2020	$373,885	$373,885
REG17960	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Traction Power Upgrades	Transit Capital/Operations: Make improvements to the Folsom line Traction Power (TPS) system that will improve service availability during peak service on the Folsom corridor and improved contingency operation.	Completion by 2020	$890,193	$934,000
REG18002	Yes	Sacramento	Sacramento Regional Transit District	D- Programs & Planning	Transit Master Plan Update	Service Plan: Update the RT Transit Master Plan.	Completion by 2020	$524,468	$550,000
REG18016	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Vehicles)	Transit Vehicle Replacement (CNG) & Related Equipment	Replace up to ten 40-foot CNG buses including related equipment and spare parts.	Completion by 2020	$6,250,000	$6,250,000
SAC24789	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Update Data Backup Systems	New hardware/software for ERP and security systems backup	Completion by 2020	$104,320	$109,000
REG17990	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Upgrading Rail Interlockings (Remote Indication)	Technology Upgrade: Upgrade rail interlocking status and control functions to provide modem connection to Central Train Tracking/Operations Central Control.	2021-2036	$406,546	$496,000
REG18021	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Utility Buildings ROW Improvements	Aesthetic improvements to Sacramento Regional Transit utility buildings located along Folsom Boulevard and the Sacramento Regional Transit light rail Gold Line within the City of Rancho Cordova.	Completion by 2020	$225,000	$225,000
REG17979	Yes	Sacramento	Sacramento Regional Transit District	E- Transit Capital (Minor)	Wayfinding Signage	Passenger Amenities: Procure and install Wayfinding signage to light rail stations.	Completion by 2020	$88,849	$93,000
REG18000	Yes	Sacramento	Sacramento Regional Transit District	G- System Management, Operations, and ITS	Wayside Signal Reconfiguration Phase 2	Technology Upgrade: Detailed analysis and design modification to the existing wayside signaling system.	2021-2036	$361,211	$441,000
SAC24311	Project Development Only	Sacramento	Sacramento Regional Transit District, City of Rancho Cordova	E- Transit Capital (Major)	Rancho Cordova Streetcar	Rancho Cordova Town Center Loop Streetcar- Phase 1 (7.5 miles)	Completion after 2036	$182,918,000	
SAC24763	Yes	Sacramento	San Juan USD	D- Programs & Planning	Safe Routes to School	At 16 schools within Sacramento County: Conduct Safe Routes to School non-infrastructure programs, which include education, promotion, and school site assessments. (Toll Credits)	Completion by 2020	$250,000	$250,000
VAR56120	Yes	Sacramento	State Dept. of Parks and Rec.	A- Bike & Ped	American River Parkway Bike Trail Renewal Project - Phase 1	Adjacent to the City of Folsom within the Folsom Lake State Recreation Area: between Beals Point and Negro Bar area; rehabilitation paved bike trail.	Completion by 2020	$433,100	$433,100
UCP10001	Yes	Sacramento	UCP of Greater Sacramento	E- Transit Capital (Vehicles)	Bus Replacement Purchase	Replace six buses. Each with sufficient capacity to carry 16 ambulatory and 2 wheelchair passengers. (Uses Toll Credits for local match).	Completion by 2020	$438,000	$438,000
CAL20429	Yes	Sutter	Caltrans D3	C- Maintenance & Rehabilitation	Lomo Railroad Crossing	ROW Acquisition and Construction: Railroad Crossing. North of SR 99 / Live Oak Blvd. intersection.	2021-2036	$10,000,000	$12,203,000
CAL20602	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	SR 99 Interchange Improvements	Interchange Improvements: Mack Road, Florin Road, 47th Ave., 12th Ave.	2021-2036	$40,000,000	$48,811,000
CAL15770	Yes	Sutter	Caltrans D3	B- Road & Highway Capacity	SR 20 Improvements	Widen: SR 20 to six (6) lanes from Walton Rd. to Rocca Wy.	2021-2036	$2,000,000	$3,128,000
CAL20489	Yes	Sutter	Caltrans D3	C- Maintenance & Rehabilitation	SR 20 Signal Poles at Plumas Street	Sutter County, in Yuba City, SR 20 at Plumas Street - Replace signal poles (PM 16.5) [CTIPS ID 107-0000-0929] (Toll Credits for PE, ROW, CON)	Completion by 2020	$1,405,000	$1,405,000
CAL15780	Yes	Sutter	Caltrans D3	G- System Management, Operations, and ITS	SR 20 / SR 99 Interchange ROW Acquisition	ROW Acquisition: for urban interchange at existing SR 20 / SR 99 intersection	2021-2036	$25,000,000	$30,507,000
SUT17014	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Highway 99	Widen: Add 2 travel lanes from Nevada St. (N. end) to Riviera Rd. Includes: curb, gutter, sidewalks, and drainage improvements. (Phase IV)	2021-2036	$5,661,000	$8,853,000
CAL20658	Yes	Sacramento	Caltrans D3	C- Maintenance & Rehabilitation	I-5 Rehabilitate Pavement	In Sacramento, from I-5 to Watt Avenue OC (Br #24-34)	2021-2036	$156,678,000	$245,034,000
SAC23810	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	Highway 99 Meister Way Overcrossing	New Overcrossing: Meister Wy. / Hwy. 99.	2021-2036	$6,500,000	$10,166,000
CAL15881	Yes	Yolo	Caltrans D3	B- Road & Highway Capacity	I-5 / 113 Connector Phase 2	Phase 2 - Construct northbound I-5 to southbound SR 113 freeway to freeway connection.	2021-2036	$113,851,850	$113,851,850
CAL20522	Yes	Sutter	Caltrans D3	C- Maintenance & Rehabilitation	Sutter Bypass Rehab and Widening	Near Yuba City on SR 20, from Sutter Bypass to Lytle Road - Rehabilitate roadway and widen shoulders (PM 5.0/11.3) [EFIS ID 0300020608; CTIPS ID 107-0000-0968] (Toll Credits for PE, ROW, CON)	Completion by 2020	$26,041,000	$26,041,000
CAL20650	Yes	Multiple Counties	Caltrans D3	G- System Management, Operations, and ITS	I-5 Install Vehicle Detection Stations	In Sacramento and Yolo Counties on I-5 at 9 locations	2021-2036	$1,000,000	$1,564,000
CAL20552	Yes	Sutter	Caltrans D3	G- System Management, Operations, and ITS	Yuba City Operational Improvements	In Sutter County, on SR 99, in and near Yuba City, from Bogue Road to Pease Road - Install signal and add/upgrade Traffic Operating Systems (TOS) [PM 27.6/R32.7] [CTIPS ID 107-0000-1007] (Toll credits for PE, ROW, CON)	Completion by 2020	$4,430,000	$4,430,000
SUT18914	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Apricot St.	Construct New Road: 2 lane collector from Samuel St. to Richard Ave. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$1,716,000	$2,684,000
SUT17011	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Apricot St.	Pavement Rehabilitation: in Live Oak from N St. to Samuel St. Includes: resurface existing pavement.	2021-2036	$360,000	$439,000
SUT17009	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Archer Ave.	Pavement Rehabilitation: from L St. to K St. Includes: curb, gutter, sidewalks, and drainage improvements. (Phase II)	2021-2036	$486,000	$593,000
SUT17025	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Archer Ave.	Pavement Rehabilitation: from K St. to City Limit. Includes: curb, gutter, sidewalks, and drainage improvements. (Phase III)	2021-2036	$480,000	$586,000
SUT18857	Yes	Sutter	City of Live Oak	D- Programs & Planning	Bicycle and Pedestrian Master Plan	Create a Live Oak Bicycle and Pedestrian Master Plan to integrate bicycle and pedestrian features into future development, as well as identify improvements for existing facilities.	Completion by 2020	$59,281	$59,281
SUT18915	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Bishop Ave.	Road Reconstruction: from SR 99 to Planning Area Limits Includes drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$1,047,000	$1,278,000
SUT17007	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Broadway St.	Road Reconstruction: from Pennington Rd. to Elm St. Includes: sidewalk, bike lanes, drainage improvements.	2021-2036	$810,000	$988,000
SUT18916	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Broadway St. and Elm St.	Road Reconstruction from Apricot St. to the Elm St./SR 99 intersection. Includes: drainage improvements, curb, gutter and sidewalk and bike lanes	2021-2036	$581,000	$709,000
SUT17023	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Center St.	Pavement Rehabilitation: from Pennington Rd. to Elm St. Includes: drainage improvements.	2021-2036	$800,000	$1,251,000
SUT18907	Yes	Sutter	City of Live Oak	A- Bike & Ped	Class I Bikeways	Construct New Class I Bikeways off-street and along various new and existing City streets	2021-2036	$3,405,000	$5,325,000
SUT18918	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Coleman Rd.	Road Reconstruction: from SR 99 to Sinnard Ave. Includes drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$2,110,000	$2,575,000
SUT17020	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Elm St.	Road Reconstruction: from Broadway to N St. Includes: curb, gutter, sidewalks, bike lanes, and drainage improvements.	2021-2036	$567,000	$887,000
SUT17024	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Elm Street Reconstruction	In Live Oak: Elm Street from Larkin Road to L Street; reconstruct, install curb, gutter, sidewalks, drainage improvements.	2021-2036	$580,000	$708,000
SUT17021	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Fir St.	Road Reconstruction: from Broadway to N Street. Includes: curb and gutter, and new sidewalk from California St. to N Street.	2021-2036	$486,000	$760,000
SUT17022	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Gum St.	Road Reconstruction: from Broadway to N St. Includes: curb, gutter, sidewalks, and drainage improvements.	2021-2036	$425,000	$665,000
CAL20645	Yes	Sacramento	Caltrans D3	G- System Management, Operations, and ITS	I-5 ITS - Fiber Optic - 5	In Sacramento County on I-5 from Pocket Road to Jct I-80	2021-2036	$2,800,000	$4,379,000
SUT18865	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Live Oak Collaborative Highway 99 Streetscape Improvements	In Live Oak, SR 99, from Ash Street to Ramsdell Drive: widen from 2 to 4 lanes and build streetscape improvements. (PE Only. Toll Credits for PE.)	2021-2036	$1,899,084	$1,899,084

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
CAL18410	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 and I-80 HOV Connectors and Lanes to Downtown	Reconstruct I-5/I-80 Interchange, including high occupancy vehicle (HOV, bus/carpool) lane connectors, and construction of HOV lanes from the I-5/I-80 Interchange to downtown Sacramento (PM 26.7/27.0) [EFIS ID 0300000313] (Emission Benefits in kg/day 1.0 ROG)	2021-2036	$300,000,000	$469,180,000
CAL20569	Yes	Sutter	Caltrans D3	A- Bike & Ped	SR 99 Class II Bike Lane	On SR 99, construct bike lane from Bogue Road to SR 20 Jct.	2021-2036	$1,440,000	$2,252,000
SUT18906	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	Highway 99	Widen: Add 2 travel lanes from Coleman Rd. to Paseo Ave. Includes: curb, gutter, sidewalks, and drainage improvements. (Phase V)	Completion after 2036	$734,400	
SUT17018	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Ivy St.	Road Reconstruction: from Hwy. 99 to Larkin Rd. Includes: curb, gutter, sidewalks, and drainage improvements.	2021-2036	$480,000	$751,000
SUT17001	Yes	Sutter	City of Live Oak	A- Bike & Ped	Kola Street Sidewalks	In Live Oak; Kola Street from State Route 99 to Larkin Road; reconstruct street, install curb, gutters, sidewalks, drainage improvements, new cross walk striping and pedestrian crossing warning lights.	2021-2036	$391,100	$477,000
SUT18921	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	L Street Reconstruction	In Live Oak: L Street from Elm St. to Ash Street, reconstruct, install curb, gutter, sidewalks, drainage improvements.	2021-2036	$1,013,000	$1,584,000
SUT17005	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	L Street Reconstruction	In Live Oak: L Street from Pennington Road to Elm Street, reconstruct, install curb, gutter, sidewalks, drainage improvements.	2021-2036	$242,300	$296,000
SUT16984	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road	In Live Oak on Larkin Road from Nevada Street to Riviera Road reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$9,350,000	$11,410,000
SUT18880	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road	In Live Oak on Larkin Road from current City Limit to Paseo Ave. reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$4,510,000	$5,503,000
SUT18881	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road	In Live Oak on Larkin Road from current City Limit to Riviera Rd.. reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$3,040,000	$3,710,000
SUT18882	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road	In Live Oak on Larkin Road from Apricot St. to current City Limit. reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$2,450,000	$3,832,000
SUT18879	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road	In Live Oak on Larkin Road from Road 3 to current City Limit. reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$1,251,000	$1,527,000
SUT18922	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Larkin Road and Elm Street	In Live Oak on Larkin Road from Archer Ave. to the Elm St./SR 99 intersection. reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$581,000	$709,000
CAL20587	Yes	Sacramento	Caltrans D3	B- Road & Highway Capacity	I-5 Transition Lane	I-5 Transition Lane: SB, from Garden Hwy. off-ramp to the Garden Hwy. on-ramp.	2021-2036	$4,000,000	$6,256,000
SAC24968	Yes	Sacramento	City of Elk Grove	B- Road & Highway Capacity	State Route 99	Southbound Auxiliary Lane from Elk Grove Blvd. to Laguna Blvd.	2021-2036	$561,000	$877,000
SUT18887	Yes	Sutter	City of Live Oak	A- Bike & Ped	Live Oak Community Trail	Construct New Class I Bikeway along O St. from Pennington Rd. to Kola St. (Phase 3)	2021-2036	$520,000	$635,000
SUT18917	Yes	Sutter	City of Live Oak	A- Bike & Ped	Live Oak Community Trail	Construct New Class I Bikeway along the abandon Sacramento Northern Railroad right-of-way from Elm St. to the Pennington Rd./O St. Intx. (Phase 2)	2021-2036	$885,000	$1,080,000
SUT16987	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Luther Rd.	Road Reconstruction: from the current existing city boundary to Riviera Rd. Includes: drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$5,887,000	$9,207,000
SUT18884	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	N St.	Construct New Road: 2 lane collector from current City Limit to Paseo Ave. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	Completion after 2036	$6,786,000	
SUT18885	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	N St.	Road Reconstruction: from Fir St. to Apricot St. Includes drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$1,418,000	$2,218,000
SUT17017	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	N St.	Road Reconstruction: from Kola St. to Epperson Way. Includes: curb, gutters, sidewalks, drainage improvements, and bike lanes.	2021-2036	$1,256,000	$1,533,000
SUT18883	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	N St.	Road Reconstruction: from Pennington Road to Fir St. Includes drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$623,000	$760,000
SUT17019	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Nevada St.	Road Reconstruction: from Hwy. 99 to Larkin Rd. Includes: curb, gutter, sidewalk, and drainage improvements.	2021-2036	$600,000	$938,000
SUT18890	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	P St.	Road Reconstruction: from Pennington Road to Apricot St. Includes drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$1,870,000	$2,925,000
SUT18889	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	P St.	Road Reconstruction: from Park St. to Pennington Road Includes drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$567,000	$692,000
SUT18891	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Paseo Ave.	Reconstruct roadway from Hwy. 99 to Township Road, realign west 0.5 mi. Includes: drainage improvements, curb, gutter, sidewalk, and bike lanes.	2021-2036	$11,150,000	$17,438,000
SUT16985	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction: from Township Rd. to Luther Rd. Includes: drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$3,973,000	$6,214,000
SUT18892	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction from K St. to Sinnard Ave. Includes: curb and gutter, sidewalk, drainage improvements, bike lanes and underground utilities.	2021-2036	$1,800,000	$2,815,000
SUT16992	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction from Larkin Rd. to K St. Includes: curb and gutter, sidewalk, drainage improvements, bike lanes and underground utilities.	2021-2036	$1,500,000	$1,830,000
SUT17004	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	Pennington Rd.	Widen and Reconstruct: add 2 traffic lanes from Hwy. 99 to N Street. Includes: center median with turn pockets, drainage improvements, bike lanes, and underground utilities.	Completion after 2036	$1,500,000	
SUT17010	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction from Connecticut Ave. to Luther Rd. Includes: drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$1,370,000	$1,672,000
SUT16997	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction: from Sinnard Ave. to Sheldon Ave. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$1,079,000	$1,687,000
SUT17012	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction from Hwy. 99 to Larkin Rd. Includes: curb and gutter, sidewalk, drainage improvements, bike lanes and underground utilities.	2021-2036	$1,000,000	$1,220,000
SUT17008	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd.	Road Reconstruction from P St. to Connecticut Ave. Includes: drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$415,000	$506,000
SUT18858	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Pennington Rd. Complete Streets Rehabilitation	Pennington Rd., from Connecticut Ave. to Broadway: reconstruct roadway and restripe existing bicycle lanes.	Completion by 2020	$1,094,776	$1,094,776
SUT17006	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Pennington Road Widening Phase 2	In Live Oak: Pennington Road from N Street to P Street, reconstruct adding 2 new traffic lanes and center median with turn pockets, drainage improvements, bike lanes and undergrounding utilities.	2021-2036	$243,100	$380,000
SUT16990	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Riviera Rd.	Road Reconstruction: from Township Rd. to Hwy. 99. Includes: drainage, curb and gutter, sidewalk, and bike lanes. (Phase II)	2021-2036	$7,332,000	$11,467,000
SUT16983	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Riviera Road	In Live Oak, Riviera Road from SR99 to Larkin Road reconstruct road and install drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$4,518,000	$5,513,000
SUT18898	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	Road 9	Construct New Road: 2 lane collector from Richard Ave. to Linda St. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	Completion after 2036	$2,808,000	
SUT18900	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Road E	Construct New Road: 2 lane collector from SR 99 to Riviera Rd. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$3,822,000	$5,977,000
SUT18902	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Sean Drive	Construct New Road: 2 lane collector from Luther Rd. to Road C. Includes: drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$2,028,000	$3,172,000
SUT16991	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Sinnard Ave.	Road Reconstruction: from Fir St. to Pennington Rd. Includes: drainage, curb and gutter, sidewalk, and bike lanes.	2021-2036	$542,700	$849,000
SUT16981	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	South Loop Road	In Live Oak, phase-1 Township to Sinnard, construct South Loop Road, a new 4 lane connector including drainage, curb and gutter, sidewalk, and bike lanes	Completion after 2036	$1,581,650	
SUT16989	Yes	Sutter	City of Live Oak	C- Maintenance & Rehabilitation	Township Rd.	Road Reconstruction: from Pennington Road to Riviera Road. Includes drainage, curb, gutter, sidewalk, and bike lanes.	2021-2036	$9,436,000	$14,757,000
SUT16988	Project Development Only	Sutter	City of Live Oak	B- Road & Highway Capacity	Township Road	In Live Oak, Phase-1 from Paseo Road to Pennington Road construct Township Road a new 4 lane connector including drainage, curb and gutter, sidewalk, and bike lanes.	Completion after 2036	$17,083,000	
SUT18864	Yes	Sutter	City of Yuba City	A- Bike & Ped	Bike Lane Striping Upgrades	At 14 intersections within the City limits: Upgrade bike lane striping. (HSIP5-03-025)	Completion by 2020	$128,600	$128,600
SUT16956	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Bogue Rd.	Widen: 4 lanes from Harter Pkwy. to Garden Hwy.	Completion after 2036	$15,991,800	
SUT16957	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Bogue Rd.	Widen: 4 lanes from George Washington Blvd. to Harter Pkwy.	Completion after 2036	$140,720	
SUT16976	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Bogue Rd.	Widen: 4 lanes from Township Rd. to George Washington Blvd.	Completion after 2036	$437,390	

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
SUT18859	Yes	Sutter	City of Yuba City	C- Maintenance & Rehabilitation	Bogue Rd. Complete Streets Rehabilitation	Bogue Rd., from Railroad Ave. to Garden Highway: rehabilitate roadway, widen shoulders to accommodate new bicycle lanes and add bicycle video detection at intersection of Bogue Rd. and Garden Highway.	Completion by 2020	$514,100	$514,100
SUT16953	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Bridge St.	Widen: 4 lanes from Western Pkwy. to Walton Ave.	2021-2036	$14,633,100	$22,885,000
SUT10250	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Bridge Street Widening	In Yuba City, Widen Bridge Street from Cooper Street to Gray Avenue: widen to 4 lanes.	2021-2036	$9,393,543	$9,393,543
SUT16961	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Butte House Rd.	Widen: 4 lanes from Township Rd. to Tharp Rd.	Completion after 2036	$1,348,640	
SUT16963	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Clark Ave.	Roadway Operational Improvements: from Richland Rd. to Franklin Ave. add a continuous left-turn lane and bike lanes.	2021-2036	$6,016,405	$9,409,000
SUT16969	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	El Margarita Rd.	Roadway Operational Improvements: from Hwy. 20 to Franklin Rd. add a continuous left turn lane and bike lanes.	2021-2036	$2,689,965	$4,207,000
SUT10828	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Feather River Bridge at 5th St	5th St/Bridge St crossing over the Feather River/2nd St, between Marysville and Yuba City: Replace two-lane bridge with 4-lane bridge. (HPP# 3631)	Completion by 2020	$94,391,864	$94,391,864
SUT16977	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Franklin Ave.	Widen: 4 lanes from Plumas Blvd. to Garden Hwy.	Completion after 2036	$558,443	
SUT10530	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Franklin Avenue	Widen Franklin Avenue from 2 to 4 lanes from Route 99 to Clark Avenue.	2021-2036	$5,224,500	$8,171,000
SUT16954	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Franklin Rd.	Widen: 4 lanes from Township Rd. to Hwy. 99.	Completion after 2036	$2,368,460	
SUT18874	Yes	Sutter	City of Yuba City	A- Bike & Ped	Franklin Road Improvements	Yuba City on Franklin Road, between Harding Road and Walton Avenue: Install a mid-block high visibility crosswalk, fill in sidewalk gaps, add full length Class II Bicycle Lanes, update all pedestrian access ramps, and provide associated road improvements.	Completion by 2020	$393,000	$393,000
SUT18837	Yes	Sutter	City of Yuba City	A- Bike & Ped	Garden Highway Bicycle Lanes and Sidewalks	Garden Highway, from Lincoln Rd to Winship Rd: Construct class II bike lanes and sidewalks. (Emission Benefits in kg/day: 0.03 ROG, 0.02 NOx, 0.01 PM10)	Completion by 2020	$814,101	$814,101
SUT10540	Yes	Sutter	City of Yuba City	A- Bike & Ped	Garden Hwy.	Bike Lane Facilities: From Franklin Ave. to Second St provide bicycle facilities. Includes: on-street improvements .	2021-2036	$1,100,000	$1,342,000
SUT16970	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	George Washington Blvd.	Widen: 4 lanes from Hwy. 20 to Bogue Rd.	Completion after 2036	$17,356,800	
SUT16971	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	George Washington Blvd.	Construct New Road: 4 lanes from Pease Rd. to Hwy. 20.	2021-2036	$13,911,100	$21,756,000
SUT10260	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Harter Road	In Yuba City, construct 4 lanes, Harter Road between Lassen Boulevard and Bridge Street.	Completion after 2036	$1,644,201	
SUT18871	Yes	Sutter	City of Yuba City	D- Programs & Planning	Highway 20 Opportunity Based Implementation Plan	Highway 20 corridor in Yuba City.,: identify specific improvements including sidewalks, lighting, and signage.	Completion by 2020	$100,000	$100,000
SUT16964	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Highway 99	Widen: 6 lanes from Hwy. 20 to Bogue Rd.	Completion after 2036	$31,434,000	
SUT16955	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Lincoln Rd.	Widen: 4 lanes from Township Rd. to Garden Hwy.	Completion after 2036	$3,276,290	
SUT16962	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Pease Rd.	Widen: 4 lanes from Township Rd. to Hwy. 99	Completion after 2036	$3,317,690	
SUT16974	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Pease Rd.	Construct New Interchange: 4 lanes at Pease Rd. / Hwy 99. Includes: overcrossing and connecting ramps at Hwy 99.	2021-2036	$57,880,554	$90,521,000
SUT16975	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Percy Ave.	Widen: 4 lanes from Franklin Ave. to Garden Hwy. Includes: landscaped medians.	2021-2036	$6,632,500	$10,373,000
SUT16960	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	State Route 20 - Stabler Lane to State Route 99	Widen State Route 20 from 4 to 6 lanes from Stabler Lane to State Route 99	Completion after 2036	$874,540	
SUT16958	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Sunsweet Blvd.	Construct New Road: 2 lanes from Hwy. 99 to Gray Ave.	2021-2036	$8,675,500	$13,568,000
SUT16966	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Tharp Rd.	Widen: 4 lanes from Hwy. 20 to Butte House Rd.	2021-2036	$2,351,734	$3,678,000
SUT10241	Yes	Sutter	City of Yuba City	B- Road & Highway Capacity	Walton Avenue Widening	Widen Walton Ave from Lincoln Rd. to Franklin Rd. from 2-3 lanes to 5 lanes including upgrades to bike lanes, sidewalks, curbs, gutters, and drainage.	2021-2036	$13,762,794	$21,524,000
SUT16965	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Walton Avenue Widening	Widen Walton Avenue to 4-lanes from Bogue Road to Augusta Lane	Completion after 2036	$9,879,408	
SUT10813	Project Development Only	Sutter	City of Yuba City	B- Road & Highway Capacity	Western Parkway	Construct Western Parkway (4 lanes) from State Route 20 to Butte House Road	Completion after 2036	$10,000,000	
CAL18590	Project Development Only	Sutter	PCTPA	B- Road & Highway Capacity	Route 99, New Interchange	Sutter County, north of Sacramento: along Route 99 between Riego Road and Sankey Road, construct new interchange	Completion after 2036	$1,100,000	
SUT10450	Yes	Sutter	SACOG	D- Programs & Planning	Sutter County PPM	Plan, program and monitor for Sutter County.	Completion by 2020	$708,000	$708,000
SUT18850	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance Program	Bridge Preventive Maintenance Program, Various locations.: See http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/HBP_MPO.html#SACOG web site for backup list of locations.	Completion by 2020	$685,000	$685,000
SUT18869	Yes	Sutter	Sutter County	A- Bike & Ped	Brittan Elementary School Pedestrian Improvements	Brittan Elementary School.: Provide six-feet wide sidewalks around the perimeter. (Emission Benefits in kg/day: 0.01 ROG)	Completion by 2020	$527,505	$527,505
SUT18876	Project Development Only	Sutter	Sutter County	B- Road & Highway Capacity	Howsley Rd Widening	Widen Howsley Rd between Pleasant Grove Rd and Natomas Rd	Completion after 2036	$3,960,000	
SUT18875	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Kent Road Bridge at Sutter Butte Canal.	Kent Road over Sutter Butte Canal, 0.2 Mi South of McDonald Ave.: Replace two lane bridge with two lane bridge. (Toll credits for ROW & CON.)	Completion by 2020	$1,220,000	$1,220,000
SUT18856	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Larkin Rd. Bridge Replacement	Larkin Rd. over South Birch Sutter-Butte Canal, 0.2 miles north of Encinal Rd.: Replace the existing 2-lane bridge with a new 2-lane bridge.	Completion by 2020	$958,000	$958,000
SUT10370	Project Development Only	Sutter	Sutter County	B- Road & Highway Capacity	Lincoln Rd.	Widen: 2 lanes from Jones Rd. to Walton Rd. Includes: center lane.	Completion after 2036	$3,000,000	
SUT18855	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Nicolaus Ave. Bridge Replacement	Nicolaus Ave., over Coon Creek, 1 mile west of Pleasant Grove Rd.: Replace the existing 2-lane bridge with a new 2-lane bridge	Completion by 2020	$1,332,000	$1,332,000
SUT18854	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Pennington Rd/Sutter-Butte Canal Bridge Replacement	Pennington Rd, over Sutter-Butte Canal, 0.5 mi E Sheldon Rd. Replace the existing functionally obsolete 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW, & CON.)	Completion by 2020	$1,832,000	$1,832,000
SUT18868	Yes	Sutter	Sutter County	G- System Management, Operations, and ITS	Reflective Safety Impovements	Various locations in Sutter County: Install stripping, pavement markers, and raised pavement reflectors. (HSIP6-03-020)	Completion by 2020	$897,300	$897,300
SUT10340	Yes	Sutter	Sutter County	B- Road & Highway Capacity	Riego Rd Widening	Widen Riego Rd to 4 lanes, Route 99 to Placer Co.	2021-2036	$3,142,000	$3,834,000
SUT10500	Project Development Only	Sutter	Sutter County	B- Road & Highway Capacity	Sankey Rd.	Widen: 4 lanes from Pleasant Grove Blvd. to Hwy. 99 / Hwy. 70.	Completion after 2036	$250,000	
SAC18660	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	I-5	Add Auxiliary Lane: NB from Del Paso Rd. to Hwy. 99.	2021-2036	$857,000	$1,340,000
SUT18873	Yes	Sutter	Sutter County	C- Maintenance & Rehabilitation	Tisdal Rd, Over Westside Canal-Sutter County	Tisdale Rd., over Westside Canal, 100 E Cranmore Rd.: Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge, (Toll Credits programmed for PE, R/W, & CON.) Bridge 18C-0057	Completion by 2020	$1,321,000	$1,321,000
SAC18690	Yes	Sacramento	City of Sacramento	B- Road & Highway Capacity	SR 99 Elkhorn Boulevard Interchange	In Sacramento County :Expand the Elkhorn Blvd. interchange on Route 99 to accommodate the widening of Elkhorn Blvd. from 2 to 6 lanes	2021-2036	$11,909,000	$18,625,000
CAL15882	Project Development Only	Yolo	Caltrans D3	B- Road & Highway Capacity	I-5 / SR 113 Interchange	Construct New Interchange: NB SR 113 to SB I-5 freeway to freeway connection. Phase 3.	Completion after 2036	$66,000,000	
SUT17013	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Highway 99	Widen: Add 2 travel lanes from Kola St. to Nevada St. (N. end); Includes: curb, gutter, sidewalk, and drainage improvements. (Phase II)	2021-2036	$7,956,000	$12,443,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
CAL20537	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	Maintenance Overlay near Woodland	In Yolo County, from SR 505 in Madison to Pedrick Road in Woodland - Maintenance asphalt overlay (Yol-16-31.7/40.6) [HM1 - Pavement Preservation (Fed-Funded)] (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,422,500	$2,422,500
CAL20546	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	SR 113 & Covell Blvd. Roadway Repair	In Davis, on SR 113, at Covell Boulevard - Repair roadway embankment failure (PM R2.2) [CTIPS ID 107-0000-0999]	Completion by 2020	$1,255,000	$1,255,000
CAL20626	Yes	Yolo	Caltrans D3	A- Bike & Ped	SR 128 Class II Bike Lane	Where ROW permits, construct Class II bike lane on SR 128 from Valley Oak Dr. to E. Main St., Winters (PM 7.755 to 9.359)	Completion by 2020	$2,730,000	$2,863,000
CAL20627	Yes	Yolo	Caltrans D3	G- System Management, Operations, and ITS	SR 16 & CR 85B Intersection modification	Install intersection controls at SR 16 and County Road 85B	Completion by 2020	$2,000,000	$2,098,000
CAL20664	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	SR 16 CIR with HIMA Overlay	SR 16 from Colusa Co Line to Cache Creek Indian Casino - Cold in-place recycle with Hot Mix Asphalt Overlay	2021-2036	$23,400,000	$36,596,000
CAL18743	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	SR 16 Safety Improvement Project - Phase 1	Near Capay, SR 16, from 0.3 mile west of County Road 82B to County Road 82B - Shoulder widening and curve correction lanes(PM 23.2/23.5) [EFIS ID 0314000271; CTIPS ID 107-0000-0548] (Toll Credits for PE, ROW, CON); Phase 2 of project is 03-0C472 / CAL20528	Completion by 2020	$22,047,000	$22,047,000
CAL20528	Yes	Yolo	Caltrans D3	G- System Management, Operations, and ITS	SR 16 Safety Improvement Project - Phase 2	Near Cadenasso, from 0.4 mile west of County Road 79 to 0.4 mile east of County Road 79; also from Esparto to 0.2 mile west of Route 505 - Shoulder widening, curve correction, left-turn channelization, signalization and two-way left-turn lanes (PM 20.5/31.6 [EFIS ID 0314000272; CTIPS ID 10700000983]; Phase 1 of project is 03-0C471 / CAL18743 (Toll Credits for PE, ROW, CON)	Completion by 2020	$36,160,000	$36,160,000
CAL20510	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	SR 275 Tower Bridge Fender Replacement	In West Sacramento, on SR 275, at the Tower Bridge (Sacramento River Bridge #22-0021) - Replace existing fender system (PM 13.1) [EFIS ID 0313000137; CTIPS ID 107-0000-0971] [Total Project Cost $8,609,000 in 17/18 FY] (Toll Credits for PE, ROW, CON)	Completion by 2020	$9,924,000	$9,924,000
CAL20663	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	SR 45 CIR with HIMA Overlay	SR 45 from Junction 113 in Knights Landing to Colusa Co Line - Cold in-place recycle with Hot Mix Asphalt Overlay	2021-2036	$15,200,000	$23,772,000
CAL20469	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	US 50 - Sac. River Viaduct and Ramps Bridge Rehab	In West Sacramento on Sac-50 at Sacramento River Viaduct #24-0004R/L - Bridge deck rehab (viaduct and ramps) (PM 2.5/3.2) [CTIPS ID 107-0000-0905] [Project to be combined with EA 03-0F240/CAL20468 for Design-Build under EA 03-2F21U] (Toll Credits)	Completion by 2020	$46,837,000	$46,837,000
CAL20520	Yes	Yolo	Caltrans D3	G- System Management, Operations, and ITS	US 50 Weigh in Motion (WIM) Stations	In Yolo County, near West Sacramento on US 50, 0.4 mile west of the westbound I-80 on-ramp onto eastbound SR 50 - Relocate weigh in motion (WIM) stations (PM 0.4/0.6) [EFIS ID 0313000151; CTIPS ID 107-0000-0970] (Toll Credits for PE, ROW, CON)	Completion by 2020	$2,542,000	$2,542,000
CAL20504	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	Yolo Bridge Decks	In Yolo and Colusa counties, on Routes 5, 80 and 505, at various locations - Rehabilitate bridge decks [CTIPS ID 107-0000-0956]	Completion by 2020	$8,211,000	$8,211,000
CAL20662	Yes	Yolo	Caltrans D3	C- Maintenance & Rehabilitation	Yolo SR 84 Overlay	Approx. 8 miles south of West Sacramento, from Solano Co Line to 4 miles north of Babel Slough Road - Cold in-place recycle with Hot Mix Asphalt Overlay	2021-2036	$21,250,000	$33,234,000
YOL19332	Yes	Yolo	City of Davis	G- System Management, Operations, and ITS	Bicycle and Pedestrian Wayfinding & Data Collection Program	Implement a bicycle and pedestrian wayfinding system and install permanent and temporary automated bicycle and pedestrian counters at strategic locations throughout the city of Davis.	Completion by 2020	$207,000	$207,000
YOL17130	Yes	Yolo	City of Davis	G- System Management, Operations, and ITS	Covell Blvd.	Add Turn Lanes: Covell Blvd. / Hwy. 113. Includes: turn lanes for access-egress to Hwy. 113 including the overcrossing structure.	2021-2036	$15,000,000	$18,304,000
YOL17180	Yes	Yolo	City of Davis	B- Road & Highway Capacity	Covell Blvd.	Widen: 4 lanes from Shasta Dr. to Denali Dr. Includes: bike lanes and a center median.	2021-2036	$1,600,000	$2,502,000
YOL19296	Yes	Yolo	City of Davis	A- Bike & Ped	Davis School District SRTS	Multiple Schools in the Davis Joint Unified School District: Conduct walk/bike audits; vehicle speed feedback signs; save a gallon scan + notify system; website improvements; parent incentive program. SRTS3-03-003	Completion by 2020	$283,800	$283,800
YOL19210	Yes	Yolo	City of Davis	E- Transit Capital (Minor)	Downtown Multimodal Parking Structure	In Davis, improve entrance to Amtrak Depot and parking lot, provide additional parking, construct bike/ped crossing of the railroad tracks, and improve service by increasing the frequency of bus service to the facility. This improved bus service will require the purchase of an additional one to two heavy-duty buses. (Buses would be purchased with Earmarks CA-E2007–BUSP-0060 for $200,640 and CA-2008-BUSP-0060 for $217,380)	2021-2036	$15,370,000	$15,370,000
YOL19302	Yes	Yolo	City of Davis	A- Bike & Ped	Eighth St. RR Xing Bike/Ped Safety	Eighth St., from F St. to J St.: rehabilitate roadway. At the railroad crossing, reconstruct the subgrade and install pre-cast concrete sections. Reconfigure the northern half of the J St. intersection to reduce the crossing distance for pedestrians heading to Holmes Junior High School.	Completion by 2020	$237,000	$237,000
YOL17140	Yes	Yolo	City of Davis	C- Maintenance & Rehabilitation	I-80/Richards Interchange	Reconstruct the north side of Richards Blvd. interchange to remove the loop on and off ramps and replace with new ramp in diamond configuration. Includes traffic signal installation.	2021-2036	$6,600,000	$8,054,000
YOL19330	Yes	Yolo	City of Davis	C- Maintenance & Rehabilitation	L St. Improvements	L St. from Fifth St. to Claremont Dr.: rehabilitate street and upgrade bicycle and pedestrian facilities, including a buffered bicycle lane between Fifth and Eighth Streets. (Toll Credits for PE)	Completion by 2020	$1,547,562	$1,547,562
YOL17160	Yes	Yolo	City of Davis	G- System Management, Operations, and ITS	Lake Blvd. / Covell Blvd.	Traffic Signalization: at Lake Blvd/Covell Blvd.	2021-2036	$250,000	$305,000
YOL19327	Yes	Yolo	City of Davis	C- Maintenance & Rehabilitation	Mace Blvd Road Improvements	On Mace Blvd, from Blue Oak Place to Cowell Blvd, reduce travel lanes from 4 to 2 lanes, rehabilitate pavement, add buffered bike lanes, add two-way buffered cycle-track; At Mace and Cowell, improve intersection for bicycles and pedestrians; At Mace and San Marino, Install traffic signal.	Completion by 2020	$2,159,720	$2,159,720
YOL17170	Yes	Yolo	City of Davis	B- Road & Highway Capacity	Mace Curve	Widen Mace from Alhambra Dr. to Alhambra Dr. (Mace curve) from 2 to 4 lanes, provide bike lanes, a landscaped median, and turn lanes.	2021-2036	$2,300,000	$2,300,000
YOL19337	Yes	Yolo	City of Davis	D- Programs & Planning	Safe Routes to School	In Davis, operate Safe Routs to School Program through 2018. Work includes continuing outreach, marketing, education, printing maps, supporting school site coordinators, and continuation of "Active4.me" scanning system (captures every trip and can instantly notify a parent that their student arrived on campus). Work also may include improving signage near schools.	Completion by 2020	$626,461	$626,461
YOL19357	Yes	Yolo	City of Davis	D- Programs & Planning	Study and design of Downtown core streetscape improvements	Streetscape improvements plan for primary retail streets downtown to enhance pedestrian spaces, better accommodate bicycles, and strengthen linkages between parking areas and downtown destinations. The improvements plan shall include but not be limited to directional signage, street trees, street furniture and lighting.	Completion by 2020	$200,000	$210,000
YOL19358	Yes	Yolo	City of Davis	D- Programs & Planning	Study and design of Richards Boulevard / Olive Drive area access and circulation improvements	Access and circulation plan to improve connectivity and safety for all modes of travel consistent with complete streets. The plan shall include but not be limited to the I-80 / Richards interchange, Richards / Olive intersection, and "gateway" enhancements.	Completion by 2020	$200,000	$210,000
YOL19359	Yes	Yolo	City of Davis	D- Programs & Planning	Study and preliminary design of access alternatives for Nishi property to UC Davis	Explore the feasibility of access to the Nishi property including motor vehicles, delivery vehicles, transit buses, emergency vehicles, bicycles, and pedestrians. The study and prelimnary design shall include but not be limited to access to/from the UC Davis campus and West Olive Drive.	Completion by 2020	$150,000	$157,000
YOL19301	Yes	Yolo	City of Davis	A- Bike & Ped	Third St. Improvements Project	In Davis, at the eastern entrance to the UC Davis campus, for a two-block segment of Third St. between A St. and B St.: Construct streetscape improvements.	Completion by 2020	$4,756,000	$4,756,000
YOL19345	Yes	Yolo	City of West Sacramento	A- Bike & Ped	Citywide BIke Lane Gap Closure	In West Sacramento, throughout the City: 10.3 miles of new bike lanes.	Completion by 2020	$592,000	$592,000
YOL19376	Yes	Yolo	City of West Sacramento	A- Bike & Ped	Clarksburg Branch Line Trail and Bridge-Phase2	Construction of Bike Trail from River City High School to City Limits	2021-2036	$1,000,000	$1,220,000
YOL19350	Yes	Yolo	City of West Sacramento	G- System Management, Operations, and ITS	Cold Ironing-Port of West Sacramento	Construct cold ironing infrastructure as required by the California Air Resources Board (CARB)	Completion by 2020	$2,000,000	$2,098,000
YOL15130	Yes	Yolo	City of West Sacramento	B- Road & Highway Capacity	Harbor Blvd. Widening	Harbor Blvd., West Capitol Ave. to Industrial: widen 4 to 6 lanes.	2021-2036	$6,000,000	$9,384,000

Appendix A1: 2016 MTP/SCS Project List

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
YOL19377	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	I Street to Indian Heritage Bike Trail	Construct Bike Trail under I Street Bridge and new C Street Bridge then continue atop levee to Indian Heritage Center	2021-2036	$2,000,000	$2,441,000
YOL15891	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	I-80 Enterprise Boulevard	In West Sacramento, I-80 at Enterprise Boulevard: construct eastbound on-ramp.	Completion by 2020	$4,800,000	$4,800,000
YOL15670	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	I-80/Reed Ave. Interchange	I-80 at Reed Ave. interchange: widen ramps at the intersection with Reed Avenue, widen Reed Avenue, and limit some local street access. Add ramp metering to the on-ramps.	2021-2036	$12,350,000	$15,070,000
YOL15160	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Industrial Boulevard Widening	In West Sacramento, Industrial Boulevard from the Palamidessi Bridge at the Barge Canal to Harbor Boulevard: widen from 4 to 6 lanes.	2021-2036	$16,440,000	$25,711,000
YOL15940	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Lake Washington Blvd.	Widen Lake Washington Blvd. from 2 to 6 lanes from Jefferson Blvd. to the new Palamidessi Bridge at the barge canal.	2021-2036	$4,000,000	$4,881,000
YOL15950	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Lake Washington Blvd.	Lake Washington Blvd.: Widen the Palamidessi Bridge over the barge canal from 4 to 6 lanes.	2021-2036	$10,100,000	$15,796,000
YOL19329	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Pioneer Bluff Bridge Phase 2 - Village Parkway Extension	In West Sacramento, South River Rd., 0.42 miles, from the new Pioneer Bluff Bridge across the old barge canal to the Stone Lock facility: Build 2 lane road roadway, sidewalk, bike lane, landscaping, water and storm drain utilities, and will accommodate a future north-south streetcar line that would extend from Stone Lock north to the Bridge District. (see YOL19317 for Phase 1)	Completion by 2020	$4,900,000	$4,900,000
YOL19361	**Yes**	Yolo	City of West Sacramento	G- System Management, Operations, and ITS	Port of West Sacramento Entrance	This project includes the construction of a new port entrance, including the installation of a new rail crossing near Beacon and Industrial Boulevards. This project will increase the efficiency and safety of travel to, from and within the Port, and is required prior to the construction of a new area project. This project will improve transportation operations, and is likely to lead to significant positive economic benefits.	2021-2036	$2,400,000	$2,929,000
YOL19288	**Yes**	Yolo	City of West Sacramento	D- Programs & Planning	Rail relocation & reconfiguration study	Service Plan: Study rail relocation and reconfiguration through West Sacramento. The intent of the study will be to seek implementing a proposed solution and leveraging public and private funding for implementation.	Completion by 2020	$1,000,000	$1,049,000
YOL19223	**Yes**	Yolo	City of West Sacramento	G- System Management, Operations, and ITS	Sacramento River Deep Water Ship Channel Deepening	Dredge remainder of 35 miles of 43 mile ship channel an additional 5' to 35' in depth. This 15% increase in channel depth will allow larger ships and thus will increase allowable ship capacity by 40% (from 25,000 tons to 35,000 tons). Ship channel boundaries are from Collinsville (just above Suisun Bay) up to West Sacramento.	2021-2036	$157,464,000	$246,263,000
YOL19351	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Seaway Property Infrastructure	Construct internal roadway, utilities and storm drainage network for Port Property Development	2021-2036	$5,000,000	$6,101,000
YOL15180	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	South River Rd. Widening	Reconstruct and widen South River Road to 4-lanes from US50 on-ramp to Stonegate Boulevard, including restriping the 4-lane bridge from 2-lanes to 4-lanes over barge canal.	2021-2036	$16,250,000	$16,250,000
YOL19335	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	Sycamore Trail/Westacre and Bryte Bicycle Routes	Rice Ave. to West Capitol Ave., Harbor Blvd. and 3rd St., Jefferson Blvd. to Michigan Rd.,: construct 0.5 miles of a multi-use path, street crossing enhancements, and two bicycle routes. (Emission Benefits in kg/day: 0.12 ROG, 0.06 NOx, 0.03 PM 2.5, 0.03 PM 10)	Completion by 2020	$905,324	$905,324
YOL19378	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	Sycamore Trail-Phase 2	Construction of Bike Trail from Tony Lopes Park to Stone Boulevard. Includes Bike/Ped Bridge over US Hwy 50.	Completion by 2020	$10,000,000	$10,489,000
YOL19349	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	Sycamore Trail-Phase 3	Construction of Bike Trail from Sacramento Avenue to Westfield School	2021-2036	$5,000,000	$6,101,000
YOL15900	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	U.S. 50/Jefferson Blvd. Interchange	Jefferson Blvd interchange--expand the ramps and signals from 1 to 2 lanes, add ramp metering and turn lanes, and related street closures.	2021-2036	$26,450,000	$41,366,000
YOL15680	**Yes**	Yolo	City of West Sacramento	G- System Management, Operations, and ITS	U.S. 50/South River Road	U.S. 50: Install ramp meters and modify ramp design at South River Rd interchange.	2021-2036	$23,625,000	$23,625,000
YOL19360	**Yes**	Yolo	City of West Sacramento	B- Road & Highway Capacity	Village Parkway Southern Extension	This project includes the design of, procurement of right of way for and construction of Village Parkway from Stonegate Drive to Davis Road. This new street will serve the Northeast and Southeast villages of the Southport area, improve circulation in the eastern portion of the city, and relieve traffic congestion on Jefferson Boulevard. This segment will provide the primary connection to the planned South River Road Bridge across the Barge Canal, thereby connecting the Stone Lock, Pioneer Bluff and redevelopment areas to the growing residential areas to the south. Flood program to construct interim improvements from Lake Washington to Gregory.	2021-2036	$10,500,000	$12,813,000
YOL19297	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	Washington School District Partent Corps SRTS	Multiple Schools in the Washington Unified School District in West Sacramento: Create citywide (Safe Routes to Schools) SRTS Parent Corps by training one parent champion to implement education and encouragement programs at their schools; provide pedestrian and bicycle safety skills training; implement walk- and bike-to-school events, frequent walker/rider miles contests, and distribution of safe routes to school maps. SRTS3-03-008	Completion by 2020	$496,000	$496,000
YOL19348	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	West Capitol Ave Cycle Track	West Capitol Avenue between 5th St. and Garden St.: Pedestrian improvements and raised "cycle track" (a physically separated bike path within the public right of way), convert the travel way from two-way to one-way, and reconfigure the two intersections at 5th St. and at Garden St., including removing a signalized intersection.	Completion by 2020	$87,000	$87,000
YOL19284	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	West Capitol Avenue Streetscape Improvements - Phase 3	In West Sacramento on West Capitol Avenue from Westacre Road to Sycamore Avenue, construction of streetscape improvements, including wider sidewalks, flatter road cross-section, reconfigure lanes, roundabout, utility relocation, new lighting, and substantial planting and hardscape treatments.	2021-2036	$12,420,000	$15,156,000
YOL19285	**Yes**	Yolo	City of West Sacramento	A- Bike & Ped	West Capitol Avenue Streetscape Improvements - Phase 4	In West Sacramento on West Capitol Avenue from Sycamore Avenue to Harbor Boulevard, construction of streetscape improvements, including wider sidewalks, flatter road cross-section, reconfigure lanes, utility relocation, new lighting, and substantial planting and hardscape treatments.	2021-2036	$12,720,000	$15,522,000
VAR56182	**Yes**	Yolo	City of West Sacramento. City of Woodland, City of Davis, Yolo County	D- Programs & Planning	Yolo Regional Freight Rail Project	Feasibility Study for realighment of freright rail out of the cities of Davis, Woodland and West Sacramento to area east of Davis to create enhanced freight operations, remove safety issues in cities, to encourage redevelopment of communities and to improved regional flood contrrol	Completion by 2020	$500,000	$524,000
YOL19331	**Yes**	Yolo	City of Winters	C- Maintenance & Rehabilitation	Railroad Ave. Improvements	Railroad Ave. from between Grant Ave. and Niemann St.,: complete environmental review, design, construction of street improvements, and street rehabilitation of deficient pavement.	Completion by 2020	$140,000	$140,000
YOL19291	**Yes**	Yolo	City of Winters	C- Maintenance & Rehabilitation	Railroad Ave/Dry Slough Bridge Replacement	Railroad Ave, over Dry Slough, 0.37 mi N of CR 33. Replace the existing structurally deficient 2 lane bridge with a new 2 lane bridge.	Completion by 2020	$2,020,181	$2,020,181
YOL19336	**Yes**	Yolo	City of Winters	G- System Management, Operations, and ITS	Walnut Lane Roundabout	Grant Ave (SR128) and Walnut Lane; Construct a roundabout, which includes demolition of existing curbs, sidewalks, gutters, median island, striping asphalt paving, storm drains, and drainage inlets. These features will be replaced with new curbs, gutters, median islands, pedestrian and bicycle ramps, asphalt paving, concrete paving, signing and striping, sewer services, water services, storm drain lines, drainage inlets, manholes, and landscaping.	Completion by 2020	$925,156	$925,156
YOL19344	**Yes**	Yolo	City of Woodland	D- Programs & Planning	2014 SRTS	In Woodland: Safe Routes to School non-infrastructure planning. (ATP# 0105 Toll Credits for CON)	Completion by 2020	$539,000	$539,000
YOL17390	**Yes**	Yolo	City of Woodland	B- Road & Highway Capacity	College St.	Construct New Road: 2 lane collector from County Rd. 24A to County Rd. 24C	2021-2036	$539,000	$843,000
YOL17380	**Yes**	Yolo	City of Woodland	B- Road & Highway Capacity	Coloma Wy.	Construct New Road: 2 lane collector from County Rd. 24A to County Rd. 24C.	2021-2036	$619,851	$969,000
YOL17310	**Project Development Only**	Yolo	City of Woodland	B- Road & Highway Capacity	County Rd. 102	Widen: 4 lanes from Beamer St. to East Main St.	Completion after 2036	$2,896,851	
YOL17330	**Project Development Only**	Yolo	City of Woodland	B- Road & Highway Capacity	County Rd. 102	In Woodland, from Kentucky Ave to Beamer St, on CR102: widen from 2 to 4 lanes.	Completion after 2036	$2,896,851	

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YOL17550	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	County Rd. 102	Widen: 4 lanes from Gibson Rd. to Heritage Pkwy.	2021-2036	$4,000,000	$6,256,000
YOL19287	Project Development Only	Yolo	City of Woodland	B- Road & Highway Capacity	County Rd. 25A	Construct New Road: 2 lanes from Pioneer Ave. to County Rd. 102	Completion after 2036	$4,500,000	
YOL19281	Yes	Yolo	City of Woodland	A- Bike & Ped	Downtown Streetscape (Main St.)	In Woodland on Main St., between Third St. and Sixth St.: Construct streetscape improvements, including improved sidewalks, landscaping, trees, bulb-outs, A.D.A. ramps, a pedestrian actuated signal, etc. Also construct frontage improvements at Freeman Park. (Toll Credits for CON)	Completion by 2020	$1,065,000	$1,065,000
YOL19305	Yes	Yolo	City of Woodland	A- Bike & Ped	East Main St. Improvements	In the City of Woodland along East Main Street, from East Street to east of Pioneer Avenue. Construct sidewaks, 10-foot off-street bike path and associated landscape and irrigation, class II bike lanes and bus turnouts. Project will also construct safety improvements to include medians, updated freeway and local street signage and lane striping changes to improve traffic flow near the freeway entrances/exits. (Toll credits for PE and CON)	Completion by 2020	$2,880,000	$2,880,000
YOL17560	Project Development Only	Yolo	City of Woodland	B- Road & Highway Capacity	East St.	Widen: 4 lanes from County Rd. 24A to 1320' south of Gibson Rd.	Completion after 2036	$1,900,000	
YOL19321	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Farmer's Central Road - Harry Lorenzo to Pioneer	In Woodland, Farmer's Central Road, from Harry Lorenzo Ave to Pioneer Avenue: Construct new 2-lane road.	Completion by 2020	$1,600,000	$1,600,000
YOL17350	Project Development Only	Yolo	City of Woodland	B- Road & Highway Capacity	Heritage Parkway Dr.	Construct New Road: 2 lane arterial from East St. to College St.	Completion after 2036	$3,359,151	
SUT17015	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Highway 99	Widen: Add 2 travel lanes from Elm St. to Kola St. Includes: sidewalks and drainage improvements. (Phase I)	2021-2036	$3,213,000	$5,025,000
SUT17016	Yes	Sutter	City of Live Oak	B- Road & Highway Capacity	Highway 99	Widen: Add 2 travel lanes from Elm St. to Coleman Rd. Includes: sidewalks and drainage improvements. (Phase III)	2021-2036	$6,120,000	$9,571,000
YOL17290	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Kentucky Ave.	Widen: 4 lanes from College St. to West St.	2021-2036	$3,537,189	$5,532,000
YOL17400	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Kentucky Avenue Widening & Complete Streets	Widen Kentucky Avenue from 2 to 4 lanes from East Street to College St. Also Kentucky Ave., from East St. to West St.: reconstruct roadway as a complete street. Project includes a major redesign of the street with new bicycle lanes, new landscape-separated sidewalks, drainage improvements, a landscaped median, a new traffic signal at College St., and modifications to signals at West St. and at East St. (Toll Credits for PE & CON. $600k local for CON is non-participating)	Completion by 2020	$14,500,000	$14,500,000
YOL19307	Project Development Only	Yolo	City of Woodland	B- Road & Highway Capacity	Kentucky Avenue Widening College to West Streets	Widen Kentucky Avenue from College Street to West Street from 2 lanes to 4 lanes.	Completion after 2036	$3,300,000	
YOL17420	Yes	Yolo	City of Woodland	G- System Management, Operations, and ITS	Main St.	Roadway Operational Improvements: from Ashley Ave. to Cottonwood St., construct south side improvements	2021-2036	$360,000	$439,000
YOL19292	Yes	Yolo	City of Woodland	D- Programs & Planning	Main St. / Cleveland St. Signal Ugrade	Main St./Cleveland St.: Upgrade traffic signals HSIP4-03-009	Completion by 2020	$280,222	$280,222
YOL19320	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Marston Avenue - Parkland to Harry Lorenzo	In Woodland, Marston Avenue, from Parkland Ave to Harry Lorenzo Ave: Construct new 2-lane roadway.	Completion by 2020	$500,000	$500,000
YOL17360	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Parkland Ave.	Construct New Road: 2 lane arterial from Pioneer Ave. to East St.	2021-2036	$9,044,751	$14,145,000
YOL19295	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Parkland Avenue Extension	In Woodland, from Heritage Parkway to Marston, extend Parkland Avenue.	Completion by 2020	$1,300,000	$1,300,000
YOL19326	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Parkland Drive - Pioneer to Harry Lorenzo	In Woodland, Parkland Drive, from Pioneer Avenue to Harry Lorenzo Ave: construct new 4-lane roadway.	Completion by 2020	$2,300,000	$2,300,000
YOL19322	Yes	Yolo	City of Woodland	B- Road & Highway Capacity	Pioneer Avenue - Widen Patriot to Farmer's Central	In Woodland, Pioneer Avenue, from Patriot Way to Farmers Central Road: Widen 2 to 4 lanes.	Completion by 2020	$2,300,000	$2,300,000
VAR56140	Project Development Only	Yolo	City of Woodland, City of Davis, Yolo County	A- Bike & Ped	Alternative Transportation Corridor- Davis to Woodland	Class 1 bike/low speed electric vehicle path between Davis and Woodland, along alignment identified in September 2009 feasibility study.	Completion after 2036	$10,000,000	
VAR56111	Yes	Yolo	SACOG	F- Transit O&M (Bus)	YCTD JARC Operating Assistance	Use FFY 2011 & 2012 JARC funding to continue weekday, weekend and holiday service on the routes 35, 40, 41, 240, 241 and 340, with a focus on the early morning and late evening services.	Completion by 2020	$380,000	$380,000
YOL17010	Yes	Yolo	SACOG	D- Programs & Planning	Yolo County PPM	Plan, program and monitor for Yolo County.	Completion by 2020	$1,497,000	$1,497,000
YOL19293	Yes	Yolo	UC Davis	C- Maintenance & Rehabilitation	La Rue Ave. Bridge Replacement	On UC Davis Campus, La Rue Ave. (formerly California St.) over Putah Creek: Replace functionally obsolete 2 lane bridge with 2 lane bridge including bike lanes and pedestrian access.	Completion by 2020	$6,443,617	$6,443,617
UCD10001	Yes	Yolo	UC Davis	A- Bike & Ped	UC Davis West Entry Bicycle and Pedestrian Improvements	Implement bicycle and pedestrian capacity improvements at the intersection of La Rue and Orchard Park Dr. Construct intersection modifications at La Rue and Orchard Road, which includes a dedicated bicycle and pedestrian signal phase.	Completion by 2020	$301,000	$301,000
UCP10002	Yes	Yolo	UCP of Greater Sacramento	E- Transit Capital (Minor)	Video Monitoring Systems Purchase	Purchase and installation of 16 video monitoring systems (6 new and 10 replacement) for 16 buses. (Uses Toll Credits for local match).	Completion by 2020	$39,888	$39,888
UNI10466	Yes	Yolo	Unitrans	F- Transit O&M (Bus)	Operating Assistance	Operating assistance for transit services within the City of Davis. Davis Urbanized Area. FFY 2015 to FFY 2018	Completion by 2020	$19,125,000	$19,125,000
UNI10469	Yes	Yolo	Unitrans	E- Transit Capital (Vehicles)	Rolling Stock Replacement	For Davis Community Transit, replace up to four paratransit vehicles plus related equipment (radios, fareboxes, etc). For Unitrans, purchase up to six standard 40-foot buses and two double-deck buses between FY 2015 and FY 2018 to replace existing CNG fueled buses when they have surpassed their useful lives plus related equipment (radios, fare boxes, security equipment, etc).	Completion by 2020	$6,040,000	$6,040,000
UNI10464	Yes	Yolo	Unitrans	E- Transit Capital (Minor)	UC Davis Memorial Union Terminal Improvement	Major overhaul to the MU terminal to provide operational and passenger amenity improvements, in particular to accommodate a higher volume of 40-foot buses as are operated now (compared to smaller buses being operated when the terminal was first used in the 1970s). Project will also provide for improved regional connections with YoloBus and FAST routes which serve the terminal.	Completion by 2020	$3,017,664	$3,017,664
UNI10465	Yes	Yolo	Unitrans	E- Transit Capital (Minor)	Unitrans Bus Stop Access and Passenger Amenties	Unitrans bus stop improvements, accessibility, and passenger amenities, including real-time information. Implement real-time Automatic Vehicle Location, Automatic Passenger Counter, Computer Aided Dispatching and other related ITS elements.	Completion by 2020	$400,000	$400,000
UNI10471	Yes	Yolo	Unitrans	E- Transit Capital (Minor)	Unitrans Maintenance Facility Improvements	Replace operating equipment in the maintenance facility that has surpassed its useful life.	Completion by 2020	$2,000,000	$2,000,000
UNI10467	Yes	Yolo	Unitrans	E- Transit Capital (Minor)	Unitrans Miscellaneous Capital Improvements for Ops	Office, shop, operating equipment, facility, security enhancements, and non-revenue vehicles for existing facilities.	Completion by 2020	$400,000	$400,000
VAR56122	Yes	Yolo	Yolo Adult Day Health Center	E- Transit Capital (Vehicles)	Yolo Adult Day Health Care 5310 Bus Purchase (2)	Replace two (Medium) Buses that can carry up to 14 passengers, including a driver and two wheelchair positions. (Toll Credits for CON)	Completion by 2020	$134,000	$134,000
YOL19298	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance Program	In Yolo County, Bridge Preventive Maintenance Program, Various locations. See http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/HBP_MPO.html#SACOG web site for backup list of locations.	Completion by 2020	$1,982,400	$1,982,400
YOL19352	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	Bridge Rehabilitation on County Road 19 over Slough S3	Rehabilitate or replace functionally obsolete Bridge	2021-2036	$400,000	$488,000
YOL19353	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	Bridge Rehabilitation on County Road 85 over Goodnow Slough	Rehabilitate or replace functionally obsolete Bridge	2021-2036	$400,000	$488,000
YOL19374	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	Bridge Replacement on County Road 25 over Cottonwood Slough	Replacement of structurally deficient Bridge	2021-2036	$815,000	$995,000
YOL19355	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	Bridge Replacement on County Road49 over Hamilton Creek	Replacement of functionally obsolete Bridge	2021-2036	$400,000	$488,000
YOL19249	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	County Rd. 99	Pavement Rehabilitation: from County Rd. 27 to County Road 25A. Includes: bike lanes.	Completion by 2020	$2,000,000	$2,098,000
YOL19371	Yes	Yolo	Yolo County	G- System Management, Operations, and ITS	County Road 102 Widening	Widen County Road 102 between Davis and Woodland. Project may be implemented in phases as funding allows. Turn pockets and center medians are highest priority.	2021-2036	$12,600,000	$15,376,000
YOL19370	Yes	Yolo	Yolo County	C- Maintenance & Rehabilitation	County Road 27	Roadway Safety Improvements: from County Road 89 to County Road 102. Includes: pavement rehabilitation, paved shoulders & clear recovery zone.	2021-2036	$38,000,000	$46,371,000

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YOL19289	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 12 Bridge Replacement	CR 12, over Zamora Creek, 0.69 miles east of CR 92: Replace 2 lane structurally deficient, scour critical bridge with a new 2 lane bridge. (Toll Credits for PE, ROW, & CON)	Completion by 2020	$1,693,000	$1,693,000
YOL19334	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 27 Complete Streets Road Reconstruction	CR 27, from CR 98 to CR 99, reconstruct and rehabilitate pavement, and add wider paved shoulders for bicycles, consistent with the rural character of the road.	Completion by 2020	$916,638	$916,638
YOL19318	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 29 Bridge Replacement	CR 29 Over Dry Slough, 0.77 mi west of CR 98: Replace 2-lane bridge with a new 2-lane bridge. (Toll credits for PE, ROW, CON.)	Completion by 2020	$3,033,791	$3,033,791
YOL19315	**Yes**	Yolo	Yolo County	G- System Management, Operations, and ITS	CR 31/CR 95 Turn Lanes	County Road 31/County Road 95: Install left-turn lanes. (HSIP5-03-024)	Completion by 2020	$1,000,000	$1,000,000
YOL18235	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 41 Bridge Rehabilitation or Replacement	CR 41, over Cache Creek, 500' east of SR 16: Rehabilitate or replace existing structurally deficient 2 lane bridge with new 2 lane bridge: (Toll credits for PE, ROW, & CON.)	Completion by 2020	$5,694,000	$5,694,000
YOL18233	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 86A Bridge Replacement	CR 86A, over Cottonwood Slough, 0.22 miles north of CR #25: Replace existing functionally obsolete 2 lane bridge with new 2 lane bridge. (Toll Credits for PE, ROW, & CON)	Completion by 2020	$2,137,000	$2,137,000
YOL19319	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 95 Bridge Replacement	CR 95 over Dry Slough, 0.06 mi north of CR 31: Replace 2-lane bridge with a new 2-lane bridge. (Toll credits for PE, ROW, CON.)	Completion by 2020	$1,704,987	$1,704,987
YOL19347	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 96 Bridge at Dry Slough	CR 96 over Dry Slough, 0.45 Mi North of CR 31: Replace two lane bridge with two lane bridge. (Toll Credits for PE, ROW, & CON.)	Completion by 2020	$2,474,344	$2,474,344
YOL19346	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 96 Bridge at Union School Slough	County Road 96 over Union School Slough, 1.38 Mi South of CR 27: Replace two lane bridge with two lane bridge. (Toll Credits for PE, ROW, & CON)	Completion by 2020	$1,741,779	$1,741,779
YOL19333	**Yes**	Yolo	Yolo County	A- Bike & Ped	CR 98 Bike and Safety Improvement - Phase 2	County Road (CR) 98, from 1300 feet south of CR 29 to the Solano County line. Rehabilitate, widen shoulders, add multi-use paths and bicycle lanes, and install roundabouts at CR31, Russell Blvd., and Hutchison Dr.	Completion by 2020	$15,600,000	$15,600,000
YOL18236	**Yes**	Yolo	Yolo County	C- Maintenance & Rehabilitation	CR 99W Bridge Replacement	County Road 99W, over Buckeye Creek, 0.48 miles southeast of CR 1: Replace the 2 lane structurally deficient structure with a new 2 lane structure. (Toll Credits for PE, ROW, & CON)	Completion by 2020	$2,751,500	$2,751,500
YCT18252	**Yes**	Yolo	Yolo County Transportation District	E- Transit Capital (Major)	Capitol Corridor Multimodal Facility in Davis	Engineering, Environmental, and Construction of the City of Davis-Amtrak Multimodal station	Completion by 2020	$25,000,000	$26,223,000
YCT18253	**Yes**	Yolo	Yolo County Transportation District	E- Transit Capital (Minor)	New Satellite Facility	Engineering, Environmental and Construction of a new satellite facility for bus parking, maintenance and dispatch.	Completion by 2020	$10,000,000	$10,489,000
YCT18239	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Demand Response)	ADA Operating Assistance (FTA 5307)	ADA Operations for transit services within the YCT District as well as service to / from Sacramento. Sacramento Urbanized Area and Woodland Urbanized Area. FFY 2015 : $220,000 FFY 2016 : $220,000	Completion by 2020	$8,115,816	$8,115,816
YCT18243	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Demand Response)	Beyond ADA Paratransit Service (New Freedom Large Urban/MAP 21 5310)	Operating assistance to provide transit services for medical appointments only, for Yolo County residents. This service will be Monday through Friday, 4 hours a day.	Completion by 2020	$1,096,986	$1,096,986
YCT18241	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Demand Response)	Beyond ADA paratransit service (New Freedoms Small Urban/ MAP 21 5310)	Expansion of paratransit service for medical appointments beyond the three-fourths of a mile required by ADA.	Completion by 2020	$976,794	$976,794
YCT18251	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Operating Assistance (FTA Small Urban 5307)	Operating assistance for continuation of service on routes 45, 210, 211, 212, 214, 215, 216, 217, 242, and 243. FFY 2014: $472,830 FFY 2015: $496,472 FFY 2016: $521,295	Completion by 2020	$2,981,194	$2,981,194
YCT18250	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Operating Assistance (JARC Large Urban/ MAP 21 5307)	Operating Assistance for continuation of service on routes 35, 40, 41, 240, 241, and 340. This service provides low income individuals with alternative transportation options between their homes and employment related activities. Includes operating assistance for FY11-12, FY12-13, FY13-14 & FY14-15	Completion by 2020	$6,850,033	$6,850,033
YCT18187	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Operation Assistance (RURAL JARC/ MAP-21 5311)	Operating Assistance for continuation service on Route 215. This service provides low income and rural individuals transit service to and from employment related activities. Includes operating assistance for FY 11-12, FY 12-13, FY 13-14 FY 14-15.	Completion by 2020	$7,424,782	$7,424,782
YCT18238	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Preventive Maintenance (5307)	Preventive Maintenance for transit services within the YCT District as well as service to / from Sacramento. Sacramento Urbanized Area and Woodland Urbanized Area. FFY 2015 : $1,109,780 FFY 2016 : $1,109,780	Completion by 2020	$14,503,250	$14,503,250
YCT18186	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Route 42 Operating Assistance (Small Urban JARC MAP 21 5307)	Operating Assistance for continuation of service on Route 42. This service provides transit service to low income individuals who work non-traditional schedules, including evenings, weekends, and holidays. This amount includes $150,000 of JARC funds transferred to the 5307 account. This also includes new 5307 Small Urban (Davis UZA) funds.	Completion by 2020	$2,249,699	$2,249,699
YCT18240	**Yes**	Yolo	Yolobus/YCTD	F- Transit O&M (Bus)	Rural Operating Assistance (FTA 5311)	Operating assistance for rural transit services within the YCT District. Outside the Sacramento Urbanized Area and the Woodland Urbanized Area. FFY 2014: $110,000	Completion by 2020	$7,241,405	$7,241,405
YCT18244	**Yes**	Yolo	Yolobus/YCTD	E- Transit Capital (Vehicles)	Yolobus Fixed Route Bus Replacement	Purchase nine (9) replacement 40-foot Compressed Natural Gas (CNG) transit buses including automatic vehicle location [AVL] equipment, fare collection equipment and security camera equipment; Rehabilitate and re-tank eight (8) fully equipped CNG transit buses. The buses have 36 – 42 seats, be completely ADA accessible and have two (2) wheelchair tie down positions. (Emission Benefits in kg/day: 8.58 NOx)	Completion by 2020	$7,169,000	$7,169,000
YCT18165	**Yes**	Yolo	Yolobus/YCTD	E- Transit Capital (Minor)	Yolobus Maintenance Facility Improvements & Equipment	Repair, replace shop equipment, and perform maintenance for Yolobus maintenance shop. (FTA 5309(c) funds are State of Good Repair funding)	Completion by 2020	$650,000	$650,000
YCT18245	**Yes**	Yolo	Yolobus/YCTD	E- Transit Capital (Vehicles)	Yolobus Paratransit Vehicle Replacement	Replace seven Paratransit vehicles fully equipped with radios, Automatic Vehicle Location (AVL) Systems and fareboxes. (Emission Benefits in kg/day: 0.36 NOx)(FTA 5339 is MAP-21 from FFY 2013.)	Completion by 2020	$1,118,312	$1,118,312
CAL18824	**Project Development Only**	Yuba	Caltrans D3	B- Road & Highway Capacity	Feather River Expressway	~~Passing Lanes: Marysville to Butte County line.~~ Build a 2-lane bypass west of the City of Marysville with connections to 5th and 10th street bridge, with later phases linking to SR 70 north of Marysville and SR 20 east of Marysville.	Completion after 2036	$74,400,000	
CAL20523	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	Loma Rica Rd./Spring Valley Rd. Rehab and Widening	Near Marysville on Yub-20, from 0.1 mile east of Loma Rica Road to 0.2 mile west of Spring Valley Road - Rehabilitate roadway and widen shoulders (PM 8.0/10.2) [EFIS ID 0300020594; CTIPS ID 107-0000-0972] (Toll Credits for PE, ROW, CON)	Completion by 2020	$10,979,000	$10,979,000
CAL18782	**Yes**	Yuba	Caltrans D3	G- System Management, Operations, and ITS	Marysville Operational Improvements	On SR 20 in Marysville, from I Street to F Street; also on SR 70, from 4th Street to 5th Street - Install left-turn pockets and modify signals [CTIPS ID 107-0000-0627; EFIS ID 0300000273) (Toll Credits)	Completion by 2020	$6,667,000	$6,667,000
CAL20441	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	Marysville Roadway Rehab	In Marysville on SR 70 from First St. undercrossing to east of Binney Junction and on SR 20 from Feather River Bridge #18-9 to 0.1 mile east of Levee Rd. - Roadway rehab (Yub-70 PM 14.1/15.4 and Yub-20 PM 0.5/3.5) [CTIPS ID 107-0000-0841; EFIS ID 0300020139]	Completion by 2020	$44,881,000	$44,881,000
CAL20585	**Yes**	Yuba	Caltrans D3	G- System Management, Operations, and ITS	Marysville UPRR Underpass	~~Underpass Improvements: widen the UPRR Underpass. Phase I and Phase II~~ Widen 17th street UPRR underpass to 4 lanes with sidewalks and shoulders, provide standard vertical clearance.	2021-2036	$10,000,000	$12,203,000
CAL20526	**Yes**	Yuba	Caltrans D3	A- Bike & Ped	SR 20 & SR 70 ADA Infrastructure Upgrade	standard vertical clearance.	Completion by 2020	$7,047,000	$7,047,000
CAL20629	**Yes**	Yuba	Caltrans D3	G- System Management, Operations, and ITS	SR 20 Acceleration Lane	On SR 20 in Marysville between 17th Street and 22nd Street, extend acceleration lanes; construct median refuge (PM R2.610/R2.940)	Completion by 2020	$1,000,000	$1,049,000
CAL20473	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 20 Lower Smartville Road Pavement Rehab	Near Marysville, on SR 20, from Marysville Road to 0.3 mile east of Lower Smartville Road - Rehabilitate pavement (PM 13.3/20.5) [CTIPS ID 107-0000-0903; EFIS ID 0312000028] (Toll Credits)	Completion by 2020	$8,138,000	$8,138,000
CAL20431	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 20 Passing Lanes	Passing Lanes: Loma Rica Rd. to Kibbe Rd. (PM 7.9/9.4)	2021-2036	$2,500,000	$3,051,000
CAL20432	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 20 Safety Improvements	Roadway Safety Improvements: Parks Bar Rd. to Hammonton-Smartville Rd. Includes: standard shoulders, vertical and horizontal curve improvements, and EB & WB left-turn lanes.	2021-2036	$6,500,000	$7,932,000
CAL20437	**Yes**	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 20 Safety Improvements	Roadway Safety Improvements: Marysville Rd. to Sicard St. Includes: standard shoulders, vertical and horizontal curve improvements, and EB & WB left-turn lanes. (PM 13.27/19.98)	2021-2036	$5,500,000	$6,712,000

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
CAL20514	Yes	Yuba	Caltrans D3	G- System Management, Operations, and ITS	SR 20 Shoulder Widening	In Yuba County on SR 20 near Smartsville, from east of the Yuba River Bridge to 0.1 mile east of Smartsville Road - Realign and widen roadway (PM 18.2/20.2) [EFIS ID 0313000020; CTIPS ID 107-0000-0973] (Toll Credits for PE, ROW, CON)	2021-2036	$47,672,000	$47,672,000
CAL20475	Yes	Yuba	Caltrans D3	G- System Management, Operations, and ITS	SR 20 Smartsville Safety Enhancements	In Yuba County near Lakewood, on SR 20, from 0.4 mile east of McGanney Lane to Yuba/Nevada county line and Nevada county from Yuba/Nevada county line to Mooney Flat Rd. - Shoulder widening and curve improvements (PM 20.1/21.6) (Toll Credits for PE, ROW, CON) [CTIPS ID 107-0000-0912]	Completion by 2020	$24,489,000	$24,489,000
CAL20532	Yes	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 65 Pavement Rehab Near Wheatland	On SR 65 near Wheatland, from Placer County line at Bear River Bridge to 0.3 mile north of South Beale Road - Pavement rehabilitation (PM 0.0/4.8) [EFIS ID 0314000016; CTIPS ID 107-0000-0989] (Toll credits for PE, ROW, CON)	Completion by 2020	$6,768,000	$6,768,000
CAL20408	Yes	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 65 Scour Structure Rehab	Near Wheatland, SR 65, at Dry Creek Bridge #16-0002 - Bridge scour mitigation (PM 2.2) [CTIPS ID 107-0000-0806; EFIS ID 0300000076] (Toll Credits for PE, ROW, CON)	Completion by 2020	$1,588,000	$1,588,000
CAL18815	Yes	Yuba	Caltrans D3	G- System Management, Operations, and ITS	SR 70 Passing Lanes	Passing Lanes: Marysville to Butte County line.	2021-2036	$30,000,000	$36,608,000
CAL20472	Yes	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR 70 Simmerly Slough Bridge Replacement	Near Marysville, on SR-70, at Simmerly Slough Bridge #16-0019 - Replace bridge (scour) (PM 15.5/16.4) [CTIPS ID 107-00000909; EFIS ID 0312000068] (Toll Credits)	Completion by 2020	$24,014,000	$24,014,000
CAL20539	Yes	Yuba	Caltrans D3	C- Maintenance & Rehabilitation	SR-49 Repair Cut Slope/Embankment	Yuba County, SR 49 at 10.0 miles west of the Town of Downieville - Remove unsuitable material, reconstruct cut bank and embankment, modify storm water elements and place erosion control (PM 5.9/6.4) [SHOPP Minor A Program 201.150] (Toll credits for CON)	Completion by 2020	$1,510,000	$1,510,000
CAL20660	Yes	Yuba	Caltrans D3	G- System Management, Operations, and ITS	Yuba SR 20 Shoulder Widening	Near Marysville, from Marysville Road to Yuba River (Parks Bar) bridge. Rehabilitate Roadway.	2021-2036	$42,600,000	$66,624,000
CAL20524	Yes	Yuba	Caltrans Div. of Rail	G- System Management, Operations, and ITS	Ellis Rd/ UPRR Safety	In the County of Yuba, at the intersection of Ellis Road and UPRR tracks:Eliminate hazards at railroad grade crossing. (RR Xing #834954B)	Completion by 2020	$905,175	$905,175
CAL20485	Yes	Yuba	CalVans	F- Transit O&M (Shuttle)	CalVans Rural Yuba County JARC Vanpool Subsidy (Operating)	Operating Assistance for marketing of the CalVans Voucher Program in Yuba County to those not aware of the transportation options provided by the CalVans. The vouchers provide a 50% reduction in the actual cost for the rider. (Toll credits for CON)	Completion by 2020	$25,000	$25,000
YUB16037	Yes	Yuba	City of Marysville	D- Programs & Planning	Bicycle and Pedestrian Master Plan	City of Marysville.,: Develop an updated master plan for bicycle and pedestrian access routes.	Completion by 2020	$88,500	$88,500
YUB16038	Yes	Yuba	City of Marysville	D- Programs & Planning	Marysville Bounce Back Initiative	City of Marysville.: Complete community planning, urban design and economic optimization study.	Completion by 2020	$100,000	$100,000
YUB15981	Yes	Yuba	City of Marysville	C- Maintenance & Rehabilitation	Pavement Rehab.	Pavement Rehabilitation: 25th St. from Sampson to Covillaud, Sicard St. from East 16th St. to East 19th St., Freeman St. from East 18th St. to East 19th St. and East 19th St. from Covillaud to Ramirez. (Project IV)	2021-2036	$700,000	$854,000
YUB15982	Yes	Yuba	City of Marysville	C- Maintenance & Rehabilitation	Pavement Rehab.	Pavement Rehabilitation: Rideout Wy. from Covillaud to Ramirez St., Greeley from East 19th St. to East 22nd St. and Boulton from East 19th St. to East 22nd St. (Project V)	2021-2036	$700,000	$854,000
YUB16043	Yes	Yuba	City of Marysville	A- Bike & Ped	SRTS Projects and Programs	In the City of Marysville, around three schools: Improve infrastructure an non-infrastructure. Infrastructure includes new striping, signage, and raised crosswalks. The non-infrastructure portion of the project is to be completed in conjunction with the school district to create programs to promote walking and biking to school safely. (Toll Credits for PE & CON. ATP# 0109)	Completion by 2020	$489,000	$489,000
YUB15979	Yes	Yuba	City of Marysville	G- System Management, Operations, and ITS	Upgrade Signals	Traffic Signalization: Upgrade the 4 existing traffic signals (in Marysville) that are not on the State Hwy. System.	2021-2036	$1,200,000	$1,464,000
YUB16053	Yes	Yuba	City of Wheatland	C- Maintenance & Rehabilitation	C Street Resurfacing	Repair base failures, resurface and replace ped ramps.	Completion by 2020	$202,000	$212,000
YUB16039	Yes	Yuba	City of Wheatland	D- Programs & Planning	Community and Residential Design Standards and Housing Element Update	Update the City's community and residential design standards to provide developers desired community features, amenities, landscaping, infrastructure, and transportation facilities, and would update the City's housing element.	Completion by 2020	$100,000	$100,000
YUB16052	Yes	Yuba	City of Wheatland	B- Road & Highway Capacity	Olive Street Extension	Obtain right of way and construct arterial roadway.	2021-2036	$2,400,000	$3,753,000
YUB16045	Yes	Yuba	City of Wheatland	D- Programs & Planning	Pavement Management System	Purchase pavement management software, perform condition assessments of all roads, input data, prepare descision tree, prepare budget scenarios, hold public outreach workshops and present results to City Council.	Completion by 2020	$28,000	$29,000
YUB16051	Yes	Yuba	City of Wheatland	A- Bike & Ped	Pedestrian Safety Enhancements at Railroad Grade Crossings	Construct ADA compliant sidewalks, detectable warning surfaces and extend rail crossings, and modify railroad warning devices.	2021-2036	$980,000	$1,196,000
YUB16024	Yes	Yuba	City of Wheatland	A- Bike & Ped	Various Sidewalks (SRTS)	E St. between Wheatland Rd. and Third St.; Hooper Rd. between Wheatland Rd. and Olive St.; SR 65 between Hooper Rd. and McDevitt Dr.; SR 65 from Evergreen Dr. to 210' south of Evergreen Dr.: Construct sidewalks, curb and gutter, and curb ramps; install crosswalks. (SRTS3-03-009)	Completion by 2020	$304,600	$304,600
CAL18280	Project Development Only	Yuba	City of Wheatland	B- Road & Highway Capacity	Wheatland Pkwy.	Construct New Road: 2 lane expressway from the future north end of Hwy. 65 Lincoln Bypass to the existing Hwy. 65, near South Beale Rd. Includes: access control.	Completion after 2036	$15,000,000	
YUB16025	Yes	Yuba	City of Wheatland	A- Bike & Ped	Wheatland Rd. Bike/Ped Improvements (SRTS)	Wheatland Rd. between "G" St. and Wheatland Park Dr.: Construct bike path; upgrade pedestrian path, curb ramps and driveway approaches. SRTS3-03-010	Completion by 2020	$341,200	$341,200
YUB16046	Yes	Yuba	City of Wheatland	C- Maintenance & Rehabilitation	Wheatland Rd. Rehab	Pavement rehab and ADA pedestian compliance.	Completion by 2020	$400,000	$420,000
YUB15630	Yes	Yuba	SACOG	D- Programs & Planning	Yuba County PPM	Plan, program and monitor for Yuba County.	Completion by 2020	$553,000	$553,000
YUB15993	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Alleghany Rd Bridge Replacement	Alleghany Rd., over Oregon Creek, 0.1 miles east of SR 49: Replace the existing 1 lane historic bridge with a new 2 lane bridge while preserving the existing structure. (Toll Credits for R/W & CON)	Completion by 2020	$2,867,001	$2,867,001
YUB15903	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Anderson Rd.	Widen from 2 to 3 lane collector from Feather River Blvd. to Links Pkwy.	Completion after 2036	$230,000	
YUB15883	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Arboga Rd.	Widen: 4 lanes from McGowan Pkwy. to Erle Rd. Includes: curb, gutter, sidewalk, and landscaping.	2021-2036	$3,250,000	$3,966,000
YUB15880	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Arboga Road	New modified 4-lane arterial from Broadway Rd to Ella Ave, including pavement, curb, gutter, sidewalk and back of curb landscaping	2021-2036	$6,600,000	$10,322,000
YUB16021	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Bridge Preventive Maintenance	Various bridges in Yuba County: conduct preventive maintenance. See the Caltrans website for a detailed list of locations: http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/HBP_MPO.html#SACOG	Completion by 2020	$68,000	$68,000
YUB15893	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Broadway St.	Traffic Signalization: at Broadway St / Links Pkwy	2021-2036	$270,000	$329,000
YUB15887	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Broadway St.	Widen 2 lanes to 4 lane arterial. Includes pavement, curb, gutter, sidewalk, and landscaping.	2021-2036	$3,200,000	$5,005,000
YUB15889	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Broadway St.	Widen 2 to 3 lane collector from Feather River Blvd. to Links Pkwy.	Completion after 2036	$200,000	
YUB15896	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Camp Far West Rd.	Pavement Rehabilitation: from Spenceville Rd. to end of pavement.	Completion by 2020	$1,000,000	$1,049,000
YUB15910	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Country Club Ave.	Traffic Signalization: 4-way signal at Feather River Blvd.	2021-2036	$267,000	$326,000
YUB15912	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Country Club Ave.	Traffic Signalization: 3-way signal at Links Pkwy.	2021-2036	$215,000	$262,000
YUB15907	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Country Club Ave.	Widen: 3 lanes from Feather River Blvd. to Plumas Lake Golf Course. Includes: curb, gutter, sidewalk, and landscaping.	Completion after 2036	$363,800	
YUB15895	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Ella Ave.	Widen 2 to 3 lane collector from Feather River Blvd. to Arboga Rd. Includes: curb, gutter, sidewalk, and landscaping.	2021-2036	$3,756,000	$5,874,000

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Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
YUB15897	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Ella Ave. / Arboga Rd.	Traffic Signalization: at Ella Ave/Arboga Rd.	2021-2036	$215,000	$262,000
YUB15901	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Ella Ave. / Feather River Blvd.	Traffic Signalization: at Ella Ave/Feather River Blvd.	2021-2036	$267,000	$326,000
YUB15899	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Ella Ave. / Links Pkwy.	Traffic Signalization: at Ella Ave/Link Pkwy.	2021-2036	$267,000	$326,000
YUB16044	Yes	Yuba	Yuba County	A- Bike & Ped	Ella Elementary School Safe Routes to School	In the unincorporated Community of Olivehurst in Yuba County; Seventh Avenue between Olivehurst Avenue and Powerline Road; widen roadway for bicycles lanes and install new sidewalk, curb and gutter, storm drain system and a raised median island. (Toll Credits for PE)	Completion by 2020	$1,350,000	$1,350,000
YUB15902	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Erle Rd.	Widen: 4 lanes from Edgewater East to Griffith Ave.	Completion after 2036	$2,656,000	
YUB15905	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Erle Rd. / Goldfields Pkwy.	Traffic Signalization: 3-way traffic signal.	Completion by 2020	$215,000	$226,000
YUB16050	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Erle Rd/SR70 Intch Mod	Modify ex Interchange: South of Marysville, SR 70 at Erle Road Interchange.	2021-2036	$2,000,000	$3,128,000
YUB15928	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Feather River Blvd Traffic Signal at River Oaks Blvd	Construct new traffic signal at Feather River Blvd and River Oaks Blvd.	Completion by 2020	$300,000	$315,000
YUB15927	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Feather River Blvd.	Widen: 4 lanes from Ella Ave. to south of Country Club Rd.	2021-2036	$9,725,000	$15,209,000
YUB15904	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Feather River Blvd. / Anderson Rd.	Traffic Signalization: at Feather River Blvd/Anderson St.	2021-2036	$267,000	$326,000
YUB15894	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Feather River Blvd. / Broadway Street	Traffic Signalization: at Feather River Blvd/Broadway St.	2021-2036	$270,000	$329,000
YUB16036	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Feather River Blvd. Safety Improvements	On Feather River Blvd between CR 512 and Algodon Rd: Improve horizontal alignments. (HSIP6-03-023)	Completion by 2020	$1,276,778	$1,276,778
YUB16013	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Goldfields Parkway	2 lane extension of regional arterial from Orchards Subdivision to North Beale Road (0.6 miles)	Completion by 2020	$1,000,000	$1,000,000
YUB15881	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Goldfields Parkway Traffic Signal	Install new traffic signal at the intersection of North Beale Road and Goldfields Parkway	Completion by 2020	$300,000	$315,000
YUB15929	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Goldfields Pkwy.	Construct New Road: 4 lanes (of 6 lane arterial) from Orchard S.S. to North Beale Rd.	2021-2036	$2,100,000	$3,284,000
YUB15930	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Goldfields Pkwy.	Construct New Road: 4 lanes from North Beale Rd. to north of Hammonton-Smartsville Rd.	2021-2036	$995,000	$1,556,000
YUB15931	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Goldfields Pkwy.	Construct New Interchange: Goldfields Pkwy. at Hwy. 65 / Hwy 70 connection.	2021-2036	$66,000,000	$103,220,000
YUB15933	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Goldfields Pkwy.	Widen from 4 to 6 lanes from Erle Rd. to North Beale Rd.	Completion after 2036	$600,000	
YUB15934	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Griffith Ave.	Widen: 3 lanes from Hammonton-Smartsville Rd. to Linda Ave.	Completion after 2036	$6,600,000	
YUB16035	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Hammonton Smartville Rd. Shoulder Widening	Hammonton Smartville Rd between South Golden Parkway and approx. 1 mile west: Widen and pave shoulder, including installation of safety edge. (HSIP6-03-022)	Completion by 2020	$665,000	$665,000
YUB15939	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Hammonton-Smartsville Rd. / Goldfields Pkwy.	Traffic Signalization: at Hammonton-Smartsville Rd/Goldfields Pkwy.	2021-2036	$300,000	$366,000
YUB15940	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Hammonton-Smartsville Rd. / Griffith Ave.	Traffic Signalization: at Hammonton-Smartsville Rd/Griffith Ave.	2021-2036	$300,000	$366,000
YUB16030	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Hammonton-Smartsville Rd. Shoulder Improvements	Hammonton-Smartsville Rd. from 0.18 mile E of Doolittle Gate Rd. to 2.28 miles E of Doolittle Gate Rd.: Widen and pave shoulders, curve corrections. (HSIP5-03-026)	Completion by 2020	$1,123,600	$1,123,600
YUB15938	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Hammonton-Smartville Rd. / Dantoni Rd.	Traffic Signalization: at Hammonton-Smartsville Rd/Dantoni Ave.	2021-2036	$300,000	$366,000
YUB15867	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Highway 70	Widen: overpass at McGowan Pkwy. Includes: new traffic signals.	2021-2036	$4,200,000	$5,125,000
YUB16032	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Iowa City Rd. Bridge Replacement	Iowa City Rd. over Jack Slough, 0.35 miles east of Fruitland Rd.: Replace existing 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW, CON)	Completion by 2020	$903,000	$903,000
YUB15942	Yes	Yuba	Yuba County	B- Road & Highway Capacity	La Porte Rd.	Widen and Realign: from Butte County to Willow Glen Rd.	2021-2036	$3,200,000	$5,005,000
YUB15944	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Links Parkway Extension to County Club Road	From Plumas Arboga Rd to Country Club Rd., construct new extension of Links Parkway.	Completion after 2036	$12,000,000	
YUB15943	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Links Pkwy.	Construct New Road: 4 lane arterial from Ella Ave. to Plumas Arboga Rd.	Completion after 2036	$850,000	
YUB15906	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Links Pkwy. / Anderson Rd.	Traffic Signalization: at Links Pkwy/Anderson Rd.	2021-2036	$267,000	$326,000
YUB15945	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Loma Rica Rd.	Roadway Operational Improvements: Widen and construct turn pockets at various locations. Includes: shoulder widening.	Completion by 2020	$2,650,000	$2,780,000
YUB15946	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Loma Rica Rd.	Traffic Signalization: at Hwy. 20 / Loma Rica Rd.	2021-2036	$300,000	$366,000
YUB16031	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Los Verjeles Rd. Bridge Replacement	Los Verjeles Rd., over South Honcut Cr., at Butte County Line: Replace existing 2 lane bridge with a new 2 lane bridge.	Completion by 2020	$3,151,000	$3,151,000
YUB15949	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Marysville Rd.	Roadway Operational Improvements: Construct turn pockets and widen shoulders at various intersections from Hwy. 20 to Willow Glen Rd.	Completion by 2020	$3,955,000	$4,148,000
YUB16040	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Mathews Ln. and Ramirez Rd. Farm-to-Market Project	Matthews Ln., from Woodruff Ln. to Ramirez. Rd., and Ramirez Rd., from Matthews Ln. to Fruitland Rd.,: Rehabilitate lanes and improve intersection to connect to Farm-to-Market truck destinations.	Completion by 2020	$2,460,400	$2,460,400
YUB15950	Yes	Yuba	Yuba County	B- Road & Highway Capacity	McGowan Parkway	Construct 3-lane collector McGowan Parkway from Arboga Road to Union Pacific Railroad.	2021-2036	$1,300,000	$2,033,000
YUB15871	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	McGowan Parkway and Arboga Road Traffic Signalization	Install new Traffic Signal at the intersection of McGowan Parkway and Arboga Road.	Completion by 2020	$250,000	$262,000
YUB15951	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	McGowan Pkwy.	Widen: 4 lanes from UPRR to Hwy. 65. Includes: turn lane, curb, gutter, sidewalk, and landscaping.	Completion after 2036	$278,000	
YUB15868	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	McGowan Pkwy. / UPRR	Rail Crossing Project: Upgrade the existing at grade intersection at the UPRR tracks.	2021-2036	$810,000	$988,000
YUB15886	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	N. Beale Rd. / Griffith Rd.	Traffic Signalization: at the intersection of North Beale Rd. / Griffith Rd.	2021-2036	$215,000	$262,000
YUB16018	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	New York House Rd Bridge Replacement	New York House Rd over Dry Creek, 0.2 miles northeast of Frenchtown Rd: Replace the existing structurally deficient 2 lane bridge with a new 2-lane bridge. (Toll Credits for PE, ROW & CON). Toll Credits for ENG, Toll Credits for ROW, Toll Credits for CON	Completion by 2020	$1,680,000	$1,680,000
YUB16041	Yes	Yuba	Yuba County	A- Bike & Ped	North Beale Rd. Complete Streets Phase 2	North Beal Rd.,from Hammonton Smartsville Rd. to Linda Ave.: construct bicycle lanes, curb and gutter, sidewalks, drainage facilities, lighting and other improvements.	Completion by 2020	$3,233,138	$3,233,138

Appendix A1: 2016 MTP/SCS Project List

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2036. These projects remain eligible to seek federal and state funding, but under the financial constraint requirements for projecting revenues, the construction phase is not included in the DPS. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and consistency with plan requirements. While total costs are shown for these projects, for budgeting purposes, no more than 10% of the total project costs are anticipated to be captured within the MTP/SCS planning period. Year of expenditure costs are not provided since construction of these projects is not part of the financially constrained project list.

Project ID	Included in DPS	COUNTY	LEAD AGENCY	CATEGORY	TITLE	PROJECT DESCRIPTION	Completion Timing	TOTAL COST (2015 Dollars)	YEAR OF EXPENDITURE COST
YUB16027	Yes	Yuba	Yuba County	A- Bike & Ped	North Beale Rd. Complete Streets Revitalization Phase 1	Construct complete streets improvements for a one-mile stretch on North Beale Rd. from Lindhurst Ave. to Hammonton Smartsville Rd. in the community of Linda. The project will construct curbs, gutters, sidewalks, ADA compliant corner ramps, transit stop enhancements, intersection improvements and several other streetscape features. (PE is programmed on YUB16008) (Toll Credits for CON)	Completion by 2020	$1,995,000	$1,995,000
YUB16029	Yes	Yuba	Yuba County	A- Bike & Ped	North Beale Rd. Complete Streets Revitalization Phase 3	Construct complete streets improvements for a 9400 ft stretch on North Beale Rd. from Linda Avenue. to Griffith Ave. in the community of Linda. The project will construct curbs, gutters, sidewalks, ADA compliant corner ramps, transit stop enhancements, intersection improvements and several other streetscape features. (PE is programmed on YUB16008)	Completion by 2020	$11,450,000	$12,010,000
YUB15877	Yes	Yuba	Yuba County	B- Road & Highway Capacity	North Beale Road Improvements	Widen Roadway from 2-lanes to 4-lanes and install curb gutter and sidewalk from Linda Ave to Griffith Rd.	Completion by 2020	$2,000,000	$2,000,000
YUB15892	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Olivehurst Ave. / McGowan Pkwy.	Traffic Signalization: at the intersection of McGowan Pkwy. and Olivehurst Ave.	Completion by 2020	$215,000	$226,000
YUB16012	Yes	Yuba	Yuba County	A- Bike & Ped	Olivehurst Ave. Complete Street	Olivehurst Ave., from 7th Ave. to McGowan Pkwy: Install curbs, gutters, sidewalks, bicycle lanes, center turn lane, improved transit stops, and associate drainage improvements.	Completion by 2020	$1,820,000	$1,820,000
YUB16042	Yes	Yuba	Yuba County	A- Bike & Ped	Olivehurst Ave. Roundabout	At intersection of Olivehurst Ave. and Powerline Rd.: construct a roundabout, widen sidewalks to facilitate pedestrians and bicyclists around the perimeter of the roundabout, install lighting and provide refuge islands at Powerline Rd. to the east and Oliverhurst Ave. to both the north and south.	Completion by 2020	$810,000	$810,000
YUB15913	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Plumas Arboga Rd.	Rail Crossing Project: Upgrade at the Union Pacific Railroad.	2021-2036	$815,000	$995,000
YUB15915	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Plumas Arboga Rd.	Traffic Signalization: at Plumas Arboga Rd. / Arboga Rd.	2021-2036	$267,000	$326,000
YUB15917	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Plumas Arboga Rd.	Traffic Signalization: at Plumas Arboga Rd. / Feather River Blvd.	2021-2036	$267,000	$326,000
YUB15918	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Plumas Arboga Rd.	Traffic Signalization: at Plumas Arboga Rd. / Links Pkwy.	2021-2036	$267,000	$326,000
YUB15908	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Plumas Arboga Rd.	Widen 2 to 3 lane collector from Arboga Rd. to UPRR.	2021-2036	$2,000,000	$3,128,000
YUB15909	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Plumas Arboga Rd.	Widen from 2 to 3 lane collector from UPRR to Algodon Rd.	Completion after 2036	$8,700,000	
YUB15916	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Plumas Arboga Rd.	Widen 2 to 3 lane collector from Feather River Blvd. to Arboga Rd.	2021-2036	$2,500,000	$3,910,000
YUB15958	Project Development Only	Yuba	Yuba County	B- Road & Highway Capacity	Plumas Arboga Rd. Ext	Plumas Arboga Rd. Extension to the new interchange at SR 65	Completion after 2036	$2,675,000	
YUB15919	Yes	Yuba	Yuba County	B- Road & Highway Capacity	Plumas Lake Blvd.	Construct New Road: 4 lanes from Plumas Lake Blvd. Interchange to Plumas Arboga Rd. Includes: a structure over the RR tracks.	2021-2036	$2,700,000	$4,223,000
YUB16006	Yes	Yuba	Yuba County	A- Bike & Ped	Powerline Rd Bike/Ped Improvements Phase 2	Olivehurst, on Powerline Rd, from 15th Ave. to 9th Ave.: Construct new sidewalks and bicycle lanes. (Emission Benefits: 0.01 ROG kg/day.)	Completion by 2020	$1,342,800	$1,342,800
YUB16034	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Rices Crossing Rd. Bridge	Rices Crossing Rd, Over Oregon House Creek, 0.04 MI S/E Marysville Rd., replace structurally deficient 2 lane bridge with a new 2 lane bridge. (Toll Credits for PE, R/W, & CON.)	Completion by 2020	$921,000	$921,000
YUB15920	Yes	Yuba	Yuba County	B- Road & Highway Capacity	River Oaks Blvd	Construct new 4-lane modified arterial from Algodon Rd to Draper Ranch South development.	2021-2036	$7,500,000	$11,730,000
YUB15925	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	River Oaks Blvd.	Traffic Signalization: at River Oaks Blvd. / Broadway St.	2021-2036	$270,000	$329,000
YUB15921	Yes	Yuba	Yuba County	B- Road & Highway Capacity	River Oaks Blvd.	Road Extension: 4 lanes from Broadway St. to Draper Ranch South development.	Completion by 2020	$6,300,000	$6,608,000
YUB15923	Yes	Yuba	Yuba County	B- Road & Highway Capacity	River Oaks Blvd.	Road Extension: 2 inner lanes of 4-lane arterial from Feather River Blvd. to Lateral 16.	2021-2036	$2,000,000	$3,128,000
YUB16017	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Scales Rd Bridge Widening	Scales Rd, over Slate Creek, 3 miles northeast of La Porte Rd.: replace existing 1 lane bridge with a new 2 lane bridge. (Toll Credits for PE, ROW & CON)	Completion by 2020	$3,076,000	$3,076,000
YUB16033	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Spring Valley Rd. Bridge Replacement	Spring Valley Rd. over Little Dry Creek, 0.3 miles west of Marysville Rd.: Replace existing 2 lane bridge with a new 2 lane bridge. (Toll credits for PE, ROW, CON)	Completion by 2020	$1,703,000	$1,703,000
YUB16022	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Spring Valley Rd/ Browns Valley Ditch Bridge Replacement	Spring Valley Rd, over Browns Valley Ditch, 2 mi NE of SH 20. Replace the existing functionally obsolete 2 lane bridge with a new 2 lane bridge. (Toll credits programmed for PE, ROW, & CON.)	Completion by 2020	$1,506,000	$1,506,000
YUB15580	Yes	Yuba	Yuba County	B- Road & Highway Capacity	SR 65 Interchange at Forty Mile Road	South of Marysville, SR 65 at Forty Mile Road Interchange: construct interchange to accommodate traffic from the Yuba County Motorplex.	2021-2036	$2,070,000	$3,237,000
YUB15965	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Timbuctoo Rd. Bridge Replacement	In Yuba County: Timbuctoo Road, over Deep Ravine No.1, 1 mile NW/O SR 20. Replace the existing structurally deficient one lane bridge with a new two lane bridge. (Toll Credits for ROW & CON)	Completion by 2020	$1,946,000	$1,946,000
YUB16023	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Waldo Rd/Dry Creek Bridge Replacement	Waldo Rd, over Dry Creek. Replace the existing one lane truss bridge with a new two lane bridge. (Toll credits for PE, ROW, & CON.)	Completion by 2020	$2,868,000	$2,868,000
YUB15956	Yes	Yuba	Yuba County	G- System Management, Operations, and ITS	Woodruff Ln.	Roadway Safety Improvements: Widen shoulders on each side of road from Hwy. 70 to Hwy. 20.	2021-2036	$2,300,000	$2,807,000
YUB15967	Yes	Yuba	Yuba County	C- Maintenance & Rehabilitation	Woodruff Ln.	Pavement Rehabilitation: from Hwy. 70 to Jack Slough Rd.	Completion by 2020	$600,000	$629,000
YST10440	Yes	Yuba	Yuba Sutter Transit	E- Transit Capital (Minor)	New Freedom Accessible Path in Linda	Construction of an ADA accessible path to a currently inaccessible, but high use bus stop on North Beale Road in the unincorporated community of Linda. Includes curbs, gutters, and sidewalks; accessible curb cuts; accessible pedestrian signals; and other accessibility features as necessary and appropriate for the selected bus stops. (Toll Credits for CON)	Completion by 2020	$200,000	$200,000
YST10435	Yes	Yuba	Yuba Sutter Transit	E- Transit Capital (Minor)	North Beale Rd & Lowe Ave Transit Accessibility	At North Beale Rd & Lowe Ave: Construct an ADA accessible path to a high use Yuba-Sutter Transit bus stop including the curbcuts, sidewalks, accessible pedestrian signals and other accessibility features as necessary. (FFY 2007 and FFY 2008 FTA Section 5317 funds programmed in 2008 with Yuba County General Funds for the local match.)	Completion by 2020	$57,500	$57,500

APPENDIX J.1.9:

Baseline No Project Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	586	564	96.3%	27.2	2.5	C
	Through	12	13	106.7%	26.1	13.2	C
	Right Turn	481	486	101.1%	10.5	1.0	B
	Subtotal	1,079	1,064	98.6%	19.6	1.8	B
EB	Left Turn						
	Through	298	311	104.3%	24.3	2.7	C
	Right Turn	46	49	107.0%	3.1	1.1	A
	Subtotal	344	360	104.7%	21.4	2.5	C
WB	Left Turn	253	232	91.7%	6.7	2.0	A
	Through	145	143	98.5%	6.1	1.9	A
	Right Turn						
	Subtotal	398	375	94.2%	6.5	1.8	A
Total		1,821	1,798	98.8%	17.2	1.3	B

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	56	110.6%	19.5	4.7	B
	Through	8	13	160.0%	9.3	7.0	A
	Right Turn	819	821	100.2%	16.6	2.6	B
	Subtotal	878	890	101.4%	16.7	2.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	122	89.3%	29.1	8.5	C
	Through	747	725	97.0%	4.0	1.0	A
	Right Turn						
	Subtotal	884	847	95.8%	7.6	1.5	A
WB	Left Turn						
	Through	347	318	91.6%	14.2	2.5	B
	Right Turn	298	285	95.7%	3.0	0.4	A
	Subtotal	645	603	93.5%	9.0	1.5	A
Total		2,407	2,340	97.2%	11.4	0.9	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	97	91	93.6%	32.5	2.8	C
	Through	11	12	112.7%	30.8	17.7	C
	Right Turn	9	9	97.8%	6.7	4.9	A
	Subtotal	117	112	95.7%	30.5	4.2	C
SB	Left Turn	36	36	100.0%	35.5	7.5	D
	Through	3	3	106.7%	33.6	34.5	C
	Right Turn	68	65	95.9%	5.1	0.7	A
	Subtotal	107	104	97.6%	17.1	3.7	B
EB	Left Turn	126	120	95.2%	35.2	4.3	D
	Through	1,180	1,166	98.8%	12.9	2.6	B
	Right Turn	260	260	100.0%	2.5	0.2	A
	Subtotal	1,566	1,546	98.7%	12.9	2.0	B
WB	Left Turn	32	28	87.5%	43.1	8.3	D
	Through	480	456	95.1%	13.9	2.4	B
	Right Turn	10	10	100.0%	12.0	10.7	B
	Subtotal	522	494	94.7%	15.5	1.9	B
Total		2,312	2,257	97.6%	14.6	1.8	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	16	74.3%	41.6	18.0	D
	Through	5	7	144.0%	22.4	14.2	C
	Right Turn	8	14	170.0%	8.2	3.1	A
	Subtotal	34	36	107.1%	27.7	12.2	C
SB	Left Turn	15	12	82.7%	34.4	14.7	C
	Through	5	6	120.0%	41.3	27.8	D
	Right Turn	17	21	124.7%	5.6	2.2	A
	Subtotal	37	40	107.0%	21.2	5.7	C
EB	Left Turn	57	52	90.5%	39.3	8.2	D
	Through	1,074	1,072	99.8%	5.0	1.7	A
	Right Turn	94	86	91.5%	5.1	2.0	A
	Subtotal	1,225	1,210	98.7%	6.4	1.7	A
WB	Left Turn	21	18	83.8%	39.0	16.5	D
	Through	484	457	94.4%	6.7	1.1	A
	Right Turn	34	32	92.9%	6.2	4.6	A
	Subtotal	539	506	93.9%	7.8	1.3	A
Total		1,835	1,792	97.6%	7.5	1.4	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	39	94.6%	41.9	8.7	D
	Through	3	3	106.7%	20.5	26.0	C
	Right Turn	10	10	100.0%	8.1	4.2	A
	Subtotal	54	52	96.3%	34.1	3.8	C
SB	Left Turn	5	6	112.0%	33.6	22.1	C
	Through	10	9	92.0%	39.8	19.1	D
	Right Turn	7	8	114.3%	6.5	6.2	A
	Subtotal	22	23	103.6%	30.9	7.0	C
EB	Left Turn	56	58	103.6%	33.9	6.0	C
	Through	1,036	1,025	98.9%	6.3	1.9	A
	Right Turn	5	4	80.0%	1.3	2.2	A
	Subtotal	1,097	1,087	99.1%	7.7	1.6	A
WB	Left Turn	24	23	95.0%	38.3	8.7	D
	Through	491	461	93.9%	5.8	2.1	A
	Right Turn	26	25	96.9%	4.2	3.0	A
	Subtotal	541	509	94.1%	7.2	1.9	A
Total		1,714	1,671	97.5%	8.7	1.4	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	19.9	28.2	B
	Through						
	Right Turn	5	10	200.0%	5.8	4.6	A
	Subtotal	10	13	128.0%	14.8	16.3	B
SB	Left Turn	16	18	110.0%	30.2	19.6	C
	Through	5	5	104.0%	29.3	30.4	C
	Right Turn	20	20	98.0%	5.3	1.5	A
	Subtotal	41	42	103.4%	21.8	6.9	C
EB	Left Turn	54	56	103.0%	44.2	8.9	D
	Through	989	970	98.0%	5.2	1.4	A
	Right Turn	8	5	60.0%	3.5	5.1	A
	Subtotal	1,051	1,030	98.0%	7.3	1.7	A
WB	Left Turn	9	8	88.9%	33.5	21.2	C
	Through	516	490	95.0%	7.9	1.9	A
	Right Turn	17	23	136.5%	9.4	5.3	A
	Subtotal	542	522	96.2%	8.4	2.1	A
Total		1,644	1,607	97.7%	8.0	1.8	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	25	74.1%	34.1	14.1	C
	Through	82	79	96.1%	36.1	9.7	D
	Right Turn	249	259	103.9%	29.1	6.7	C
	Subtotal	365	363	99.4%	31.0	6.9	C
SB	Left Turn	7	7	97.1%	48.5	23.0	D
	Through	16	14	85.0%	51.8	26.0	D
	Right Turn	21	18	85.7%	43.1	20.7	D
	Subtotal	44	38	87.3%	47.7	12.3	D
EB	Left Turn	124	116	93.2%	43.9	9.7	D
	Through	790	764	96.8%	32.9	5.5	C
	Right Turn	96	93	96.7%	28.7	7.3	C
	Subtotal	1,010	973	96.3%	33.8	5.7	C
WB	Left Turn	325	319	98.2%	57.3	11.0	E
	Through	489	471	96.4%	24.8	5.6	C
	Right Turn	14	13	94.3%	18.5	13.4	B
	Subtotal	828	804	97.1%	37.4	5.2	D
Total		2,247	2,178	96.9%	34.9	3.8	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	13	106.7%	38.6	19.9	D
	Through	32	28	88.8%	32.5	8.7	C
	Right Turn	12	11	93.3%	6.5	4.5	A
	Subtotal	56	52	93.6%	29.1	7.6	C
SB	Left Turn	7	5	74.3%	33.1	20.5	C
	Through	7	8	120.0%	50.5	24.5	D
	Right Turn	32	32	98.8%	8.1	3.8	A
	Subtotal	46	45	98.3%	21.0	8.7	C
EB	Left Turn	137	134	98.1%	39.2	7.8	D
	Through	870	842	96.8%	7.8	2.1	A
	Right Turn	39	39	99.5%	5.8	1.0	A
	Subtotal	1,046	1,015	97.1%	11.8	1.8	B
WB	Left Turn	15	12	82.7%	29.2	14.3	C
	Through	892	886	99.3%	8.7	0.7	A
	Right Turn	51	51	100.4%	7.2	3.6	A
	Subtotal	958	949	99.1%	8.9	0.8	A
Total		2,106	2,062	97.9%	11.1	1.2	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	21	94.5%	35.1	10.6	D
	Through	7	8	108.6%	26.1	15.1	C
	Right Turn	27	30	109.6%	9.9	4.1	A
	Subtotal	56	58	103.6%	22.2	8.5	C
SB	Left Turn	40	34	86.0%	33.7	9.4	C
	Through	11	9	83.6%	34.1	22.8	C
	Right Turn	21	21	99.0%	13.0	5.8	B
	Subtotal	72	64	89.4%	27.1	5.5	C
EB	Left Turn	26	23	89.2%	43.1	13.5	D
	Through	835	766	91.8%	12.5	4.8	B
	Right Turn	28	31	111.4%	5.9	2.8	A
	Subtotal	889	821	92.3%	13.1	4.9	B
WB	Left Turn	27	27	100.7%	47.6	13.7	D
	Through	915	908	99.2%	10.6	2.6	B
	Right Turn	27	28	103.7%	9.4	2.4	A
	Subtotal	969	963	99.4%	11.6	2.7	B
Total		1,986	1,906	96.0%	13.1	3.3	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	65	99.7%	67.3	11.8	E
	Through	1,039	1,052	101.2%	12.2	2.0	B
	Right Turn	2	4	180.0%	1.3	0.7	A
	Subtotal	1,106	1,120	101.3%	15.5	1.6	B
SB	Left Turn						
	Through	2,380	2,255	94.7%	37.9	7.6	D
	Right Turn	968	968	100.0%	20.3	5.2	C
	Subtotal	3,348	3,222	96.2%	32.6	7.0	C
EB	Left Turn	839	635	75.7%	98.2	25.2	F
	Through						
	Right Turn	20	16	80.0%	25.9	16.2	C
	Subtotal	859	651	75.8%	96.4	24.5	F
WB	Left Turn						
	Through	1	1	80.0%	7.9	22.2	A
	Right Turn	2	2	80.0%	1.2	2.8	A
	Subtotal	3	2	80.0%	9.2	21.9	A
Total		5,316	4,996	94.0%	37.1	5.9	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	9	8	84.4%	5.9	3.8	A
	Right Turn	3	3	106.7%	2.4	3.3	A
	Subtotal	12	11	90.0%	5.1	2.4	A
SB	Left Turn	245	242	98.6%	5.4	0.4	A
	Through	16	15	92.5%	5.4	0.7	A
	Right Turn						
	Subtotal	261	256	98.2%	5.4	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	2	53.3%	2.0	3.3	A
	Through						
	Right Turn	49	47	96.3%	2.7	0.5	A
	Subtotal	52	49	93.8%	2.9	0.4	A
Total		325	316	97.2%	5.0	0.4	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	42	95.5%	4.5	0.4	A
	Through	49	51	103.7%	6.0	0.6	A
	Right Turn						
	Subtotal	93	93	99.8%	5.3	0.3	A
SB	Left Turn						
	Through	31	28	91.6%	7.4	1.1	A
	Right Turn	8	8	105.0%	3.1	1.8	A
	Subtotal	39	37	94.4%	6.7	0.9	A
EB	Left Turn	5	3	56.0%	2.1	2.2	A
	Through						
	Right Turn	243	235	96.8%	4.3	0.5	A
	Subtotal	248	238	96.0%	4.3	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	368	96.7%	4.8	0.4	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	24	98.3%	27.2	8.3	C
	Through	326	327	100.4%	28.7	6.4	C
	Right Turn	26	30	113.8%	29.9	12.2	C
	Subtotal	376	380	101.2%	28.8	6.0	C
SB	Left Turn	11	10	90.9%	72.2	36.0	E
	Through	421	393	93.3%	32.8	11.2	C
	Right Turn	7	7	97.1%	35.2	23.5	D
	Subtotal	439	410	93.3%	33.7	12.0	C
EB	Left Turn	10	8	80.0%	34.2	26.3	C
	Through	46	44	96.5%	39.2	13.7	D
	Right Turn	73	74	101.9%	20.5	6.5	C
	Subtotal	129	127	98.3%	27.8	6.6	C
WB	Left Turn	185	174	94.3%	47.7	15.5	D
	Through	68	67	98.2%	46.9	18.1	D
	Right Turn	27	29	106.7%	32.0	10.3	C
	Subtotal	280	270	96.4%	46.0	14.1	D
Total		1,224	1,187	97.0%	34.4	7.1	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	29	92.9%	40.5	11.0	D
	Through	100	113	113.2%	38.3	4.2	D
	Right Turn	22	22	101.8%	41.3	9.7	D
	Subtotal	153	164	107.5%	39.3	3.7	D
SB	Left Turn	2	2	100.0%	21.9	33.0	C
	Through	16	16	100.0%	40.1	15.5	D
	Right Turn	9	9	102.2%	21.0	28.1	C
	Subtotal	27	27	100.7%	34.2	11.1	C
EB	Left Turn						
	Through	61	64	105.6%	36.6	7.0	D
	Right Turn	22	18	83.6%	21.7	13.6	C
	Subtotal	83	83	99.8%	33.6	6.0	C
SW	Left Turn	18	14	80.0%	5.4	5.5	A
	Through	2,290	2,155	94.1%	11.1	2.9	B
	Right Turn	173	163	94.1%	15.9	5.1	B
	Subtotal	2,481	2,332	94.0%	11.4	2.9	B
Total		2,744	2,606	95.0%	14.1	2.6	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	124	97.6%	7.3	1.3	A
	Through	1,078	1,088	101.0%	5.9	0.7	A
	Right Turn	6	8	126.7%	1.6	2.0	A
	Subtotal	1,211	1,220	100.7%	6.0	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	48	103.0%	14.7	2.6	B
	Through	6	7	113.3%	9.2	10.3	A
	Right Turn						
	Subtotal	53	55	104.2%	13.7	2.6	B
WB	Left Turn						
	Through	6	5	86.7%	11.4	12.0	B
	Right Turn	2	3	160.0%	2.2	3.1	A
	Subtotal	8	8	105.0%	9.4	9.9	A
Total		1,272	1,284	100.9%	6.4	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	18	110.0%	15.8	6.3	B
	Through	13	15	116.9%	9.7	6.4	A
	Right Turn						
	Subtotal	29	33	113.1%	12.6	4.6	B
SB	Left Turn						
	Through	25	25	99.2%	11.2	4.4	B
	Right Turn	33	31	93.3%	8.0	5.5	A
	Subtotal	58	56	95.9%	9.2	3.7	A
EB	Left Turn						
	Through	8	5	65.0%	10.7	13.4	B
	Right Turn						
	Subtotal	8	5	65.0%	10.7	13.4	B
WB	Left Turn	39	36	91.3%	5.0	2.6	A
	Through	2,353	2,220	94.3%	8.4	1.8	A
	Right Turn	8	10	120.0%	4.6	2.1	A
	Subtotal	2,400	2,265	94.4%	8.3	1.7	A
Total		2,495	2,359	94.5%	8.4	1.7	A

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	4	62.9%	5.1	7.8	A
	Through						
	Right Turn	7	4	62.9%	3.9	5.8	A
	Subtotal	14	9	62.9%	5.2	4.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	475	493	103.7%	15.9	5.1	B
	Right Turn	62	72	115.5%	12.0	5.6	B
	Subtotal	537	564	105.1%	15.4	5.0	B
WB	Left Turn	10	7	72.0%	42.8	16.1	D
	Through	182	142	78.2%	9.1	1.9	A
	Right Turn						
	Subtotal	192	150	77.9%	10.9	2.1	B
Total		743	723	97.3%	14.3	4.0	B

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	7.2	10.1	A
	Through						
	Right Turn	40	34	85.0%	5.3	2.6	A
	Subtotal	45	38	83.6%	6.1	2.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	472	487	103.2%	17.7	3.9	B
	Right Turn	10	12	116.0%	15.0	8.5	B
	Subtotal	482	499	103.5%	17.7	3.8	B
WB	Left Turn	101	80	79.6%	21.1	3.3	C
	Through	187	147	78.5%	2.2	1.1	A
	Right Turn						
	Subtotal	288	227	78.9%	9.0	2.1	A
Total		815	764	93.7%	14.5	2.9	B

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	60.0%	6.5	13.8	A
	Through	30	32	105.3%	18.3	6.9	B
	Right Turn						
	Subtotal	32	33	102.5%	18.4	7.1	B
SB	Left Turn						
	Through	393	320	81.4%	78.6	26.0	E
	Right Turn	286	228	79.9%	71.1	28.1	E
	Subtotal	679	548	80.8%	75.4	27.0	E
EB	Left Turn	346	358	103.6%	20.2	3.3	C
	Through						
	Right Turn	166	164	98.8%	4.9	0.8	A
	Subtotal	512	522	102.0%	15.4	2.5	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,223	1,104	90.2%	45.5	13.4	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	14	9	62.9%	0.0	0.0	A
	Right Turn						
	Subtotal	14	9	62.9%	0.0	0.0	A
SB	Left Turn						
	Through	72	77	107.2%	0.4	0.1	A
	Right Turn						
	Subtotal	72	77	107.2%	0.4	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		86	86	100.0%	0.3	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	40	88.0%	0.0	0.1	A
	Subtotal	45	40	88.0%	0.0	0.1	A
SB	Left Turn Through Right Turn	111	92	82.9%	0.8	0.2	A
	Subtotal	111	92	82.9%	0.8	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	132	84.4%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	14	8	60.0%	0.0	0.0	A
	Subtotal	14	8	60.0%	0.0	0.0	A
SB	Left Turn Through Right Turn	72	77	106.7%	0.0	0.0	A
	Subtotal	72	77	106.7%	0.0	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		86	85	99.1%	0.0	0.0	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline No Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	45	40	89.8%	0.0	0.1	A
	Right Turn						
	Subtotal	45	40	89.8%	0.0	0.1	A
SB	Left Turn						
	Through	111	92	82.9%	0.2	0.1	A
	Right Turn						
	Subtotal	111	92	82.9%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		156	132	84.9%	0.2	0.1	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	5	68.6%	16.4	9.9	B
	Through	5	4	72.0%	7.5	8.6	A
	Right Turn	87	77	88.7%	7.8	1.7	A
	Subtotal	99	86	86.5%	8.6	2.4	A
SB	Left Turn	265	270	101.7%	11.8	1.9	B
	Through	265	257	97.1%	5.4	1.1	A
	Right Turn	29	28	97.9%	3.3	2.0	A
	Subtotal	559	555	99.3%	8.4	0.9	A
EB	Left Turn	3	2	53.3%	2.6	7.4	A
	Through	3	4	133.3%	2.6	4.1	A
	Right Turn	4	2	50.0%	1.7	2.6	A
	Subtotal	10	8	76.0%	4.7	5.2	A
WB	Left Turn	75	80	106.7%	13.9	2.6	B
	Through	13	12	92.3%	10.0	8.0	A
	Right Turn	24	28	115.0%	4.8	0.8	A
	Subtotal	112	120	106.8%	11.3	1.7	B
Total		780	768	98.5%	8.8	0.5	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	36	97.3%	6.2	1.0	A
	Through	32	31	96.3%	6.1	0.6	A
	Right Turn	36	30	83.3%	4.7	0.8	A
	Subtotal	105	97	92.2%	5.7	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	67	75	112.2%	7.2	0.8	A
	Through	174	161	92.6%	7.9	0.6	A
	Right Turn						
	Subtotal	241	236	98.1%	7.7	0.6	A
WB	Left Turn						
	Through	82	92	112.7%	5.4	0.4	A
	Right Turn	13	12	95.4%	2.9	1.1	A
	Subtotal	95	105	110.3%	5.1	0.3	A
Total		441	438	99.3%	6.7	0.5	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	15.8	16.8	B
	Through	5	5	104.0%	9.1	10.7	A
	Right Turn						
	Subtotal	10	8	80.0%	13.9	11.5	B
SB	Left Turn						
	Through	289	288	99.7%	18.3	1.6	B
	Right Turn	25	21	83.2%	13.8	6.3	B
	Subtotal	314	309	98.3%	18.0	1.8	B
EB	Left Turn	254	230	90.7%	21.6	3.8	C
	Through						
	Right Turn	33	31	93.3%	4.1	1.5	A
	Subtotal	287	261	91.0%	19.5	3.3	B
WB	Left Turn	5	8	152.0%	22.7	16.2	C
	Through	331	317	95.8%	13.9	2.9	B
	Right Turn	40	36	90.0%	6.3	1.8	A
	Subtotal	376	361	96.0%	13.5	2.8	B
Total		987	939	95.1%	16.6	1.5	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	16	126.2%	16.1	8.0	B
	Through	221	215	97.2%	8.7	2.1	A
	Right Turn	350	340	97.3%	5.7	0.9	A
	Subtotal	584	572	97.9%	7.1	1.2	A
SB	Left Turn	36	33	91.1%	29.1	4.9	C
	Through	452	454	100.4%	17.1	2.7	B
	Right Turn	5	4	88.0%	20.0	19.2	B
	Subtotal	493	491	99.6%	17.9	2.6	B
EB	Left Turn	5	7	136.0%	8.9	7.2	A
	Through	39	41	105.6%	13.5	6.9	B
	Right Turn	5	7	136.0%	8.1	6.4	A
	Subtotal	49	55	111.8%	12.1	4.5	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,126	1,117	99.2%	12.1	1.0	B

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	93	88	95.1%	15.1	3.2	B
	Right Turn	61	59	97.0%	4.5	0.8	A
	Subtotal	154	148	95.8%	10.8	1.9	B
SB	Left Turn	13	15	113.8%	10.7	5.8	B
	Through	44	43	98.2%	10.9	3.9	B
	Right Turn						
	Subtotal	57	58	101.8%	10.6	3.5	B
EB	Left Turn	5	6	112.0%	7.9	8.2	A
	Through	392	380	96.9%	9.1	0.5	A
	Right Turn	28	32	114.3%	4.5	2.0	A
	Subtotal	425	418	98.3%	8.8	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		636	623	98.0%	9.5	0.4	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	185	181	97.7%	11.0	1.7	B
	Through	158	163	103.0%	8.9	2.0	A
	Right Turn						
	Subtotal	343	344	100.2%	10.0	1.8	A
EB	Left Turn	5	3	64.0%	7.2	11.0	A
	Through	412	407	98.8%	8.8	1.4	A
	Right Turn	49	48	98.0%	4.5	1.9	A
	Subtotal	466	458	98.4%	8.4	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		809	802	99.1%	9.1	0.8	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	357	354	99.2%	8.1	1.1	A
	Right Turn	82	75	91.2%	6.2	1.2	A
	Subtotal	439	429	97.7%	7.8	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	328	323	98.5%	7.9	1.5	A
	Through	173	162	93.6%	9.2	2.2	A
	Right Turn						
	Subtotal	501	485	96.8%	8.3	1.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		940	914	97.2%	8.1	0.7	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	63	60	94.6%	35.1	9.8	D
	Through						
	Right Turn	457	462	101.0%	35.2	11.7	D
	Subtotal	520	521	100.2%	35.2	11.4	D
EB	Left Turn	493	454	92.1%	52.6	13.6	D
	Through	56	56	99.3%	42.2	16.4	D
	Right Turn						
	Subtotal	549	510	92.8%	51.5	13.7	D
WB	Left Turn						
	Through	93	86	92.0%	28.8	8.2	C
	Right Turn	10	10	96.0%	6.6	10.2	A
	Subtotal	103	95	92.4%	26.9	8.6	C
Total		1,172	1,126	96.1%	42.1	8.9	D

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	117	127	108.7%	15.9	1.9	B
	Through	524	511	97.5%	9.7	0.9	A
	Right Turn						
	Subtotal	641	638	99.5%	11.0	0.8	B
SB	Left Turn						
	Through						
	Right Turn	462	458	99.1%	10.6	2.4	B
	Subtotal	462	458	99.1%	10.6	2.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	452	431	95.4%	3.6	0.5	A
	Right Turn	71	72	100.8%	4.5	1.0	A
	Subtotal	523	503	96.1%	3.7	0.5	A
Total		1,626	1,599	98.3%	8.6	0.7	A

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	30	80.0%	11.8	5.1	B
	Through	95	91	96.0%	10.8	2.9	B
	Right Turn						
	Subtotal	132	121	91.5%	11.2	3.3	B
SB	Left Turn						
	Through	40	39	97.0%	15.9	3.7	B
	Right Turn	32	32	101.3%	6.2	3.0	A
	Subtotal	72	71	98.9%	11.3	2.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	56	91.8%	8.0	1.6	A
	Through	454	442	97.3%	8.6	0.9	A
	Right Turn	59	57	96.3%	9.1	2.8	A
	Subtotal	574	554	96.6%	8.6	1.0	A
Total		778	746	95.9%	9.3	0.9	A

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	202	204	101.2%	5.7	1.4	A
	Right Turn	5	6	120.0%	1.1	1.8	A
	Subtotal	207	210	101.6%	5.5	1.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	119	121	101.8%	7.6	2.1	A
	Through	569	545	95.8%	7.8	2.2	A
	Right Turn						
	Subtotal	688	666	96.9%	7.8	2.1	A
Total		895	877	98.0%	7.2	1.5	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	122	125	102.6%	7.4	1.4	A
	Through	328	312	95.2%	8.3	1.0	A
	Right Turn						
	Subtotal	450	438	97.2%	8.0	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	566	544	96.2%	8.7	0.9	A
	Right Turn	111	120	107.7%	7.3	1.6	A
	Subtotal	677	664	98.1%	8.4	0.7	A
Total		1,127	1,102	97.7%	8.3	0.7	A

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	55	53	96.0%	39.1	9.7	D
	Through	1,346	1,381	102.6%	33.4	7.9	C
	Right Turn	234	249	106.3%	22.6	10.7	C
	Subtotal	1,635	1,682	102.9%	32.0	8.1	C
SB	Left Turn	76	69	91.1%	60.7	11.0	E
	Through	132	130	98.5%	79.5	25.0	E
	Right Turn						
	Subtotal	208	199	95.8%	72.9	18.5	E
EB	Left Turn	11	10	90.9%	71.8	27.2	E
	Through	1,257	1,170	93.0%	88.2	17.9	F
	Right Turn	584	448	76.6%	175.0	24.2	F
	Subtotal	1,852	1,627	87.9%	112.0	18.6	F
NB	Left Turn						
	Through						
	Right Turn	48	38	80.0%	22.9	4.7	C
	Subtotal	48	38	80.0%	22.9	4.7	C
Total		3,743	3,547	94.8%	71.1	8.3	E

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	124	118	94.8%	29.2	3.6	C
	Right Turn	195	192	98.7%	23.9	4.6	C
	Subtotal	319	310	97.2%	25.9	3.0	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	517	520	100.7%	22.4	7.0	C
	Through	2,107	2,039	96.8%	14.2	2.8	B
	Right Turn	103	97	94.4%	13.2	3.2	B
	Subtotal	2,727	2,656	97.4%	15.8	3.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,046	2,966	97.4%	16.9	2.9	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	120	120	99.7%	17.5	2.4	B
	Through	201	202	100.7%	25.5	2.1	C
	Right Turn						
	Subtotal	321	322	100.3%	22.5	1.4	C
EB	Left Turn						
	Through	1,851	1,808	97.7%	8.4	0.5	A
	Right Turn	257	244	95.1%	6.8	0.7	A
	Subtotal	2,108	2,053	97.4%	8.2	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,429	2,375	97.8%	10.1	0.4	B

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	54	128.6%	33.3	10.8	C
	Through	65	78	119.4%	21.0	3.1	C
	Right Turn	205	252	123.1%	8.1	4.0	A
	Subtotal	312	384	123.1%	14.2	3.5	B
SB	Left Turn	77	87	113.2%	39.0	4.1	D
	Through	143	168	117.2%	18.0	4.0	B
	Right Turn	6	6	106.7%	4.5	5.2	A
	Subtotal	226	261	115.6%	24.9	3.3	C
EB	Left Turn	6	8	133.3%	39.0	21.3	D
	Through	237	291	122.9%	22.7	2.0	C
	Right Turn	98	119	121.2%	13.4	3.2	B
	Subtotal	341	418	122.6%	20.4	1.9	C
WB	Left Turn	130	151	116.0%	35.5	5.7	D
	Through	176	213	120.9%	20.3	5.6	C
	Right Turn	39	49	126.2%	4.2	0.4	A
	Subtotal	345	413	119.7%	23.9	4.3	C
Total		1,224	1,476	120.6%	20.5	2.1	C

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	18	115.0%	23.6	6.4	C
	Through	1	0	40.0%	8.5	20.4	A
	Right Turn	46	51	111.3%	9.8	3.3	A
	Subtotal	63	70	111.1%	13.8	3.1	B
SB	Left Turn	8	11	135.0%	31.3	16.9	C
	Through	6	9	146.7%	31.8	17.0	C
	Right Turn	3	2	53.3%	1.8	2.5	A
	Subtotal	17	21	124.7%	31.2	12.9	C
EB	Left Turn	1	0	40.0%	4.7	7.0	A
	Through	495	591	119.4%	14.2	4.2	B
	Right Turn	23	27	118.3%	8.8	3.4	A
	Subtotal	519	618	119.2%	14.0	4.1	B
WB	Left Turn	219	250	114.3%	24.5	3.1	C
	Through	326	400	122.6%	7.5	0.9	A
	Right Turn	5	5	96.0%	4.1	3.0	A
	Subtotal	550	655	119.1%	13.9	1.3	B
Total		1,149	1,364	118.7%	14.3	2.1	B

Intersection 47 **Jibboom St/Railyards Blvd** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	144	89.7%	26.8	4.2	D
	Right Turn	342	324	94.9%	21.8	3.6	C
	Subtotal	503	469	93.2%	23.3	3.6	C
SB	Left Turn	195	202	103.6%	9.5	2.0	A
	Through	340	344	101.3%	12.1	2.6	B
	Right Turn						
	Subtotal	535	546	102.1%	11.1	2.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	180	175	97.3%	7.9	1.5	A
	Through						
	Right Turn	9	10	115.6%	2.1	1.0	A
	Subtotal	189	186	98.2%	7.5	1.4	A
Total		1,227	1,201	97.9%	15.4	2.2	C

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	9	10	111.1%	9.9	7.5	A
	Right Turn	217	204	93.8%	5.4	1.1	A
	Subtotal	226	214	94.5%	5.6	1.2	A
SB	Left Turn	31	22	72.3%	12.3	4.1	B
	Through	41	51	124.9%	8.3	1.9	A
	Right Turn						
	Subtotal	72	74	102.2%	9.5	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	452	441	97.5%	8.9	2.5	A
	Through						
	Right Turn	5	6	112.0%	2.4	1.8	A
	Subtotal	457	446	97.7%	8.9	2.4	A
Total		755	734	97.2%	8.0	1.4	A

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	3.9	4.2	A
	Through	17	21	124.7%	2.3	0.6	A
	Right Turn	76	69	90.5%	2.3	0.5	A
	Subtotal	98	94	95.5%	2.5	0.6	A
SB	Left Turn	5	4	72.0%	8.1	8.8	A
	Through	5	4	88.0%	1.7	2.6	A
	Right Turn	101	108	107.3%	4.6	1.5	A
	Subtotal	111	116	104.9%	4.8	1.5	A
EB	Left Turn	23	20	88.7%	16.6	6.6	B
	Through	206	190	92.4%	9.4	1.4	A
	Right Turn	19	18	92.6%	4.0	2.6	A
	Subtotal	248	228	92.1%	9.8	0.9	A
WB	Left Turn	5	4	80.0%	5.9	9.5	A
	Through	351	331	94.2%	9.7	3.6	A
	Right Turn	5	3	64.0%	4.3	6.8	A
	Subtotal	361	338	93.6%	9.8	3.4	A
Total		818	776	94.9%	8.2	1.8	A

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	12	145.2%	37.3	18.4	D
	Through	255	218	85.3%	34.1	5.1	C
	Right Turn	148	143	96.6%	12.2	2.2	B
	Subtotal	411	372	90.5%	25.7	3.4	C
SB	Left Turn	91	85	93.2%	4.7	3.0	A
	Through	165	124	75.1%	23.4	7.0	C
	Right Turn	34	25	73.5%	9.9	9.7	A
	Subtotal	290	234	80.6%	15.4	4.0	B
EB	Left Turn	88	73	82.8%	75.5	7.4	E
	Through	731	678	92.7%	43.7	7.5	D
	Right Turn	5	2	42.2%	7.2	14.2	A
	Subtotal	824	753	91.4%	46.6	7.7	D
WB	Left Turn	36	28	78.2%	62.0	15.7	E
	Through	115	105	90.9%	31.2	9.3	C
	Right Turn	39	34	88.5%	5.7	1.3	A
	Subtotal	190	167	88.0%	31.2	8.1	C
Total		1,715	1,526	89.0%	35.2	4.4	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	105.6%	12.9	15.4	B
	Through	44	38	87.2%	24.3	2.9	C
	Right Turn	50	42	84.5%	9.8	2.4	A
	Subtotal	96	83	86.2%	16.7	2.2	B
SB	Left Turn	73	64	88.2%	26.9	5.8	C
	Through	11	11	102.4%	16.5	9.0	B
	Right Turn	23	20	87.2%	3.0	1.0	A
	Subtotal	107	96	89.5%	21.7	5.8	C
EB	Left Turn	249	225	90.3%	37.2	12.8	D
	Through	720	682	94.7%	16.8	6.1	B
	Right Turn	1	4	352.0%	18.8	17.9	B
	Subtotal	970	911	93.9%	21.9	7.5	C
WB	Left Turn	11	8	73.6%	37.8	18.1	D
	Through	165	140	85.1%	17.7	3.8	B
	Right Turn	141	132	93.6%	8.2	2.4	A
	Subtotal	317	281	88.5%	13.8	2.5	B
Total		1,490	1,370	91.9%	19.9	5.5	B

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	14	18	125.7%	7.9	4.2	A
	Through	2,315	2,294	99.1%	8.7	1.0	A
	Right Turn	30	29	96.0%	4.9	2.3	A
	Subtotal	2,359	2,341	99.2%	8.6	0.9	A
EB	Left Turn						
	Through	68	62	90.6%	14.9	3.9	B
	Right Turn	14	14	97.1%	11.3	7.3	B
	Subtotal	82	75	91.7%	14.2	3.3	B
WB	Left Turn	11	12	109.1%	14.0	5.4	B
	Through	70	84	119.4%	16.2	3.1	B
	Right Turn						
	Subtotal	81	96	118.0%	16.0	2.5	B
Total		2,522	2,512	99.6%	9.0	0.8	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	255	230	90.0%	8.8	1.4	A
	Through	2,013	2,022	100.4%	11.2	1.4	B
	Right Turn	72	70	96.7%	9.0	2.0	A
	Subtotal	2,340	2,321	99.2%	10.9	1.4	B
EB	Left Turn						
	Through	122	120	98.4%	18.4	4.9	B
	Right Turn	5	8	160.0%	8.6	5.4	A
	Subtotal	127	128	100.8%	17.9	4.7	B
WB	Left Turn	4	2	40.0%	11.2	16.4	B
	Through	28	27	97.1%	14.0	5.2	B
	Right Turn						
	Subtotal	32	29	90.0%	14.8	5.1	B
Total		2,499	2,478	99.1%	11.3	1.2	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	75	12	150	30	150	40	0%	0%
	Through/Right	2,725	75	18	125	35	125	43	0%	0%
SB	Left Turn	325	150	19	200	33	200	42	0%	0%
	Left/Through	1,500	175	27	250	47	250	48	0%	0%
	Right Turn	325	100	12	175	22	175	30	0%	0%
WB	Left Turn	1,275	50	14	75	26	100	23	0%	0%
	Through	275	50	11	75	28	75	38	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	25	175	39	175	36	0%	0%
	Through	325	50	16	100	27	100	36	0%	0%
NB	Left/Through	325	50	9	75	12	75	18	0%	0%
	Right Turn	1,175	175	27	250	35	250	42	0%	0%
WB	Through	225	75	12	125	25	125	23	0%	0%
0										

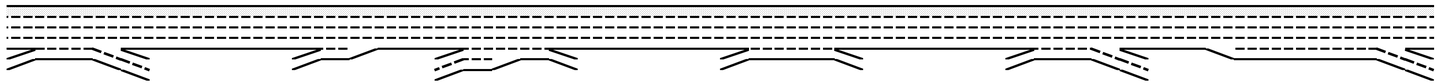
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	325	85	550	135	550	121	0%	1%
	Through	600	625	75	825	87	700	12	0%	40%
	Through/Right	600	600	20	675	24	650	20	0%	16%
NB	Right Turn	1,025	25	2	25	7	25	10	0%	0%
NE	Shared	975	400	76	550	120	550	121	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	225	48	325	42	300	46	1%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

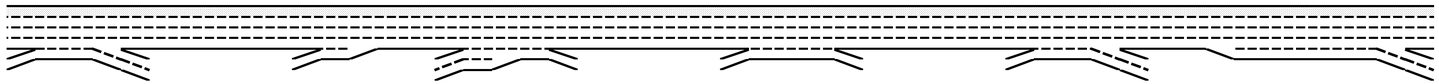
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	8,052	6,756	6,756	6,953	6,472	6,472	5,991	5,991	5,404	5,404
On Ramp Volume	339		197	397		443		373		
Off Ramp Volume	1,635			878		924		960		2,034
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	8,052	6,756	6,756	6,953	6,472	6,472	5,991	5,991	5,404	5,404
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	8,790	7,375	7,375	7,590	7,065	7,065	6,540	6,540	5,899	5,899
Flow (pcphpl)	2,198	1,844	1,844	1,898	1,766	1,766	1,635	1,635	1,475	1,180
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.94	0.78	0.78	0.81	0.75	0.75	0.70	0.70	0.63	0.50
Speed (mph)	56.0	62.2	62.2	61.5	63.1	63.1	64.2	64.2	64.9	65.0
Density (pcphpl)	39.3	29.6	29.6	30.9	28.0	28.0	25.5	25.5	22.7	18.2
LOS	E	D	D	D	D	D	C	C	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	9,226		7,632	8,006		7,601		6,980		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.79		0.81	0.68		0.65		0.59		
Flow Rate (pcphpl)	1,845		1,908	1,601		1,520		1,396		
Speed (mph)	62.2		61.3	64.4		64.8		65.0		
Density (pcphpl)	29.7		31.1	24.9		23.5		21.5		
LOS	D		D	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

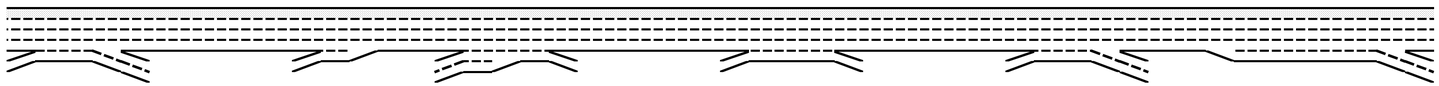
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,382			7,004		6,570		5,898		3,627
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.79			0.75		0.70		0.63		0.39
Flow Rate (pcphpl)	1,845			1,751		1,642		1,474		907
Speed (mph)	62.2			63.3		64.2		64.9		65.0
Density (pcphpl)	29.7			27.7		25.6		22.7		14.0
LOS	D			D		C		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



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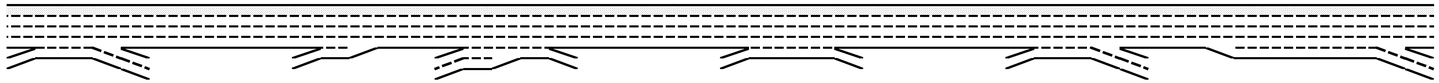
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	339		197	397		443		373		
PHF	0.79		0.78	0.97		0.84		0.86		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	436		256	415		535		440		
Flow Rate (pcphpl)	436		256	208		535		440		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.21		0.12	0.10		0.25		0.21		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

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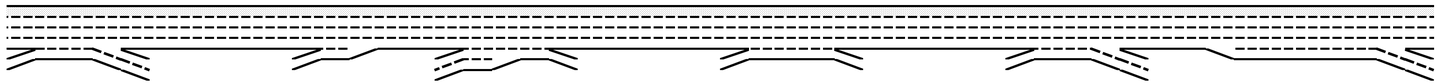
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	1,635			878		924		960		2,034
PHF	0.9			0.89		0.91		0.9		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	1,844			1,001		1,031		1,083		2,272
Flow Rate (pcphpl)	922			1,001		1,031		541		1,136
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.44			0.48		0.49		0.26		0.49
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,375							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.186							
v_{12} (pcph)			1,370							
v_3 (pcph)										
v_{34} (pcph)			6,005							
v_{12a} (pcph)			2,950							
v_{R12a} (pcph)			3,206							
Speed Index			0.38							
Area Speed			56.3							
Outer Lanes Volume			2,213							
Outer Lanes Speed			58.8							
Segment Speed			57.7							
v/c ratio			0.70							
Density			27.7							
LOS			C							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

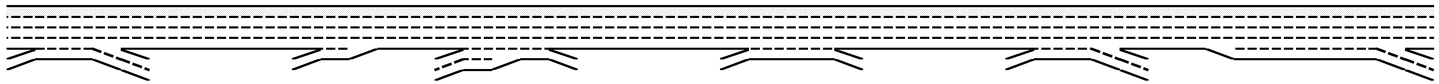
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										20.6
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

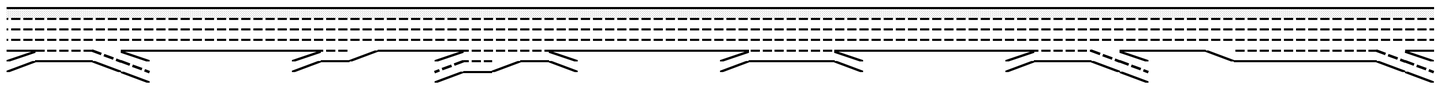
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



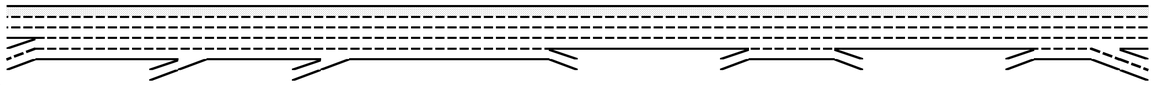
Key
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.78	0.70		0.75		0.70		0.63	
Segment Density		29.6	27.7		28.0		25.5		22.7	20.6
Segment LOS		D	C		D		C		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

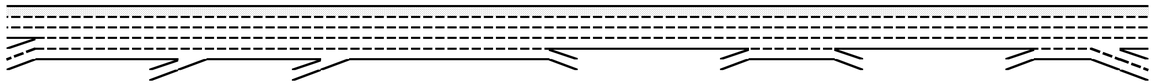
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	4,342	6,825	7,584	7,918	7,262	7,262	6,890	6,890
On Ramp Volume	2,483	759	334			707		311
Off Ramp Volume				656		1,079		1,733
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	4,342	6,825	7,584	7,918	7,262	7,262	6,890	6,890
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	4,740	7,451	8,279	8,644	7,928	7,928	7,522	7,522
Flow (pcphpl)	1,580	1,490	1,656	1,729	1,982	1,982	1,880	1,880
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.67	0.63	0.70	0.74	0.84	0.84	0.80	0.80
Speed (mph)	64.5	64.9	64.1	63.5	60.2	60.2	61.7	61.7
Density (pcphpl)	24.5	23.0	25.8	27.2	32.9	32.9	30.5	30.5
LOS	C	C	C	D	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	7,514	8,279	8,678			8,725		7,844
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.64	0.70	0.74			0.74		0.67
Flow Rate (pcphpl)	1,503	1,656	1,736			1,745		1,569
Speed (mph)	64.9	64.1	63.4			63.3		64.6
Density (pcphpl)	23.2	25.8	27.4			27.6		24.3
LOS	C	C	D			D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

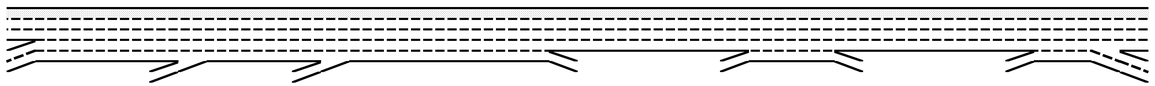
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				7,943		7,522		5,889
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.84		0.80		0.63
Flow Rate (pcphpl)				1,986		1,880		1,472
Speed (mph)				60.1		61.7		64.9
Density (pcphpl)				33.0		30.5		22.7
LOS				D		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

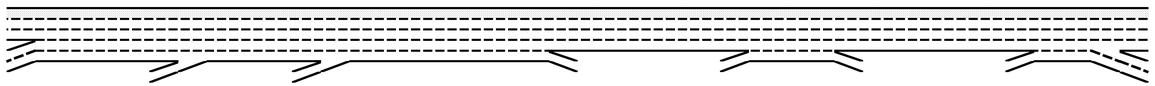
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,483	759	334			707		311
PHF	0.94	0.93	0.85			0.9		0.98
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,774	828	399			797		322
Flow Rate (pcphpl)	1,387	828	399			797		322
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.60	0.39	0.19			0.38		0.15

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

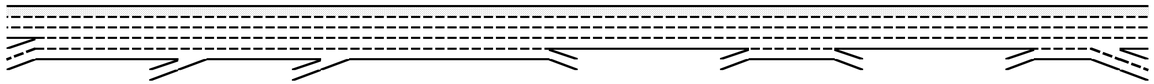
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				656		1,079		1,733
PHF				0.95		0.91		0.9
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				701		1,204		1,954
Flow Rate (pcphpl)				701		1,204		977
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.33		0.57		0.47
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		5,439	5,920					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.114	0.168					
v_{12} (pcph)		621	994					
v_3 (pcph)								
v_{34} (pcph)		4,818	4,925					
v_{12a} (pcph)		2,176	2,368					
v_{R12a} (pcph)		3,004	2,767					
Speed Index		0.39	0.36					
Area Speed		56.0	56.8					
Outer Lanes Volume		1,632	1,776					
Outer Lanes Speed		60.9	60.4					
Segment Speed		58.5	58.8					
v/c ratio		0.65	0.60					
Density		27.9	25.1					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

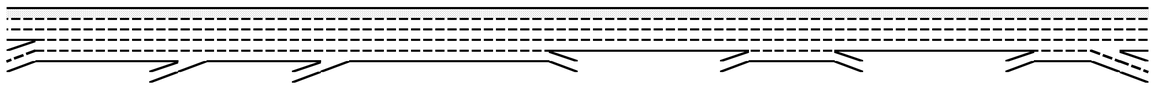
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				6,915				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.555				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				3,410				
v_3 (pcph)								
v_{34} (pcph)				3,505				
v_{12a} (pcph)				3,410				
Speed Index				0.36				
Area Speed				56.7				
Outer Lanes Volume				1,752				
Outer Lanes Speed				68.4				
Segment Speed				62.1				
v/c ratio				0.78				
Density				26.8				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

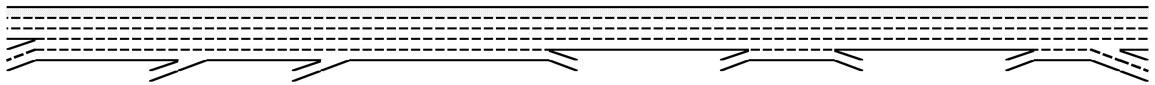
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8

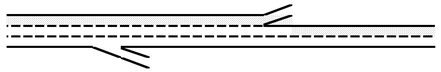


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.64	0.65	0.60	0.78	0.84		0.80	
Segment Density	23.2	27.9	25.1	26.8	32.9		30.5	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

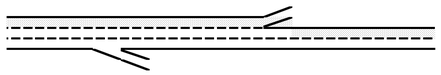


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,880	1,664	1,489
On Ramp Volume			
Off Ramp Volume	216	175	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,880	1,664	1,489
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,030	1,797	1,608
Flow (pcphpl)	677	599	804
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.29	0.25	0.33
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	10.4	8.6	11.5
LOS	A	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

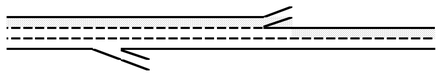


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	1,797	1,608	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.25	0.33	
Flow Rate (pcphpl)	599	804	
Speed (mph)	65.0	70.0	
Density (pcphpl)	9.2	11.5	
LOS	A	B	

Location	1	2	3

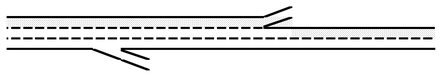


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

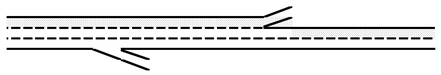


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	216	175	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	233	189	
Flow Rate (pcphpl)	233	189	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.09	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		233	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

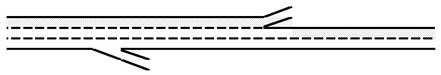


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,030		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.699		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.699		
v_{12} (pcph)	1,488		
v_3 (pcph)	542		
v_{34} (pcph)			
v_{12a} (pcph)	1,488		
Speed Index	0.32		
Area Speed	57.7		
Outer Lanes Volume	542		
Outer Lanes Speed	71.3		
Segment Speed	60.8		
v/c ratio	0.34		
Density	15.7		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

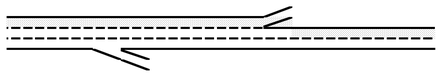


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

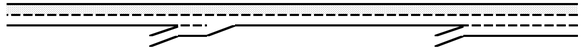
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.34	0.25	0.33
Segment Density	15.7	8.6	11.5
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

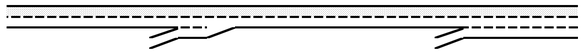


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,769	2,769	3,000	3,000
On Ramp Volume		231		384
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,769	2,769	3,000	3,000
PHF	0.88	0.88	0.88	0.88
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,194	3,194	3,460	3,460
Flow (pcphpl)	1,597	1,597	1,730	1,153
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.71	0.68	0.74	0.49
Speed (mph)	55.0	64.5	63.5	65.0
Density (pcphpl)	29.0	24.8	27.3	17.7
LOS	D	C	D	B
Operations for Segment GP Lanes				
Flow (pcph)		3,460		3,903
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.74		0.55
Flow Rate (pcphpl)		1,730		1,301
Speed (mph)		63.5		65.0
Density (pcphpl)		27.3		20.0
LOS		D		C

Location	1	2	3	4

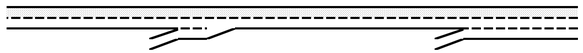


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4



Key

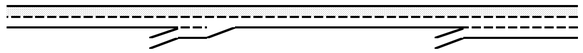
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		231		384
PHF		0.88		0.88
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		266		443
Flow Rate (pcphpl)		266		443
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.13		0.21

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Existing Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

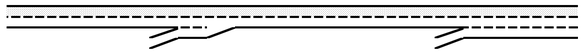


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,194		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,194		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,194		
v_{R12a} (pcph)		3,460		
Speed Index		0.38		
Area Speed		56.3		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		56.3		
v/c ratio		0.75		
Density		27.6		
LOS		C		

Location	1	2	3	4

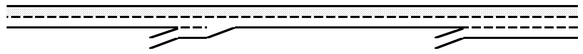


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

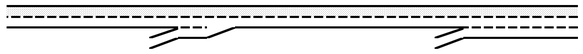


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

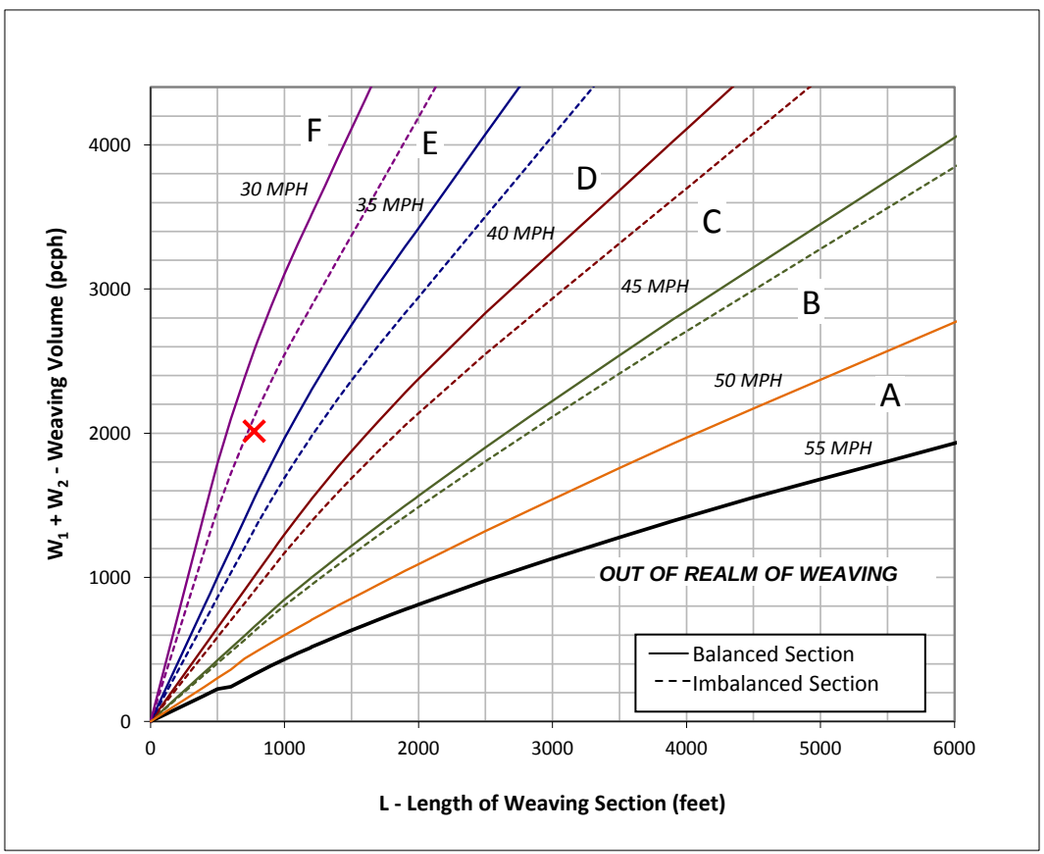
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.71	0.75	0.74	0.55
Segment Density	29.0	27.6	27.3	20.0
Segment LOS	D	C	D	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,391	Volume (vph)*	339	Volume (vph)*	1,635
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,794	Volume (pcph)	346	Volume (pcph)	1,668



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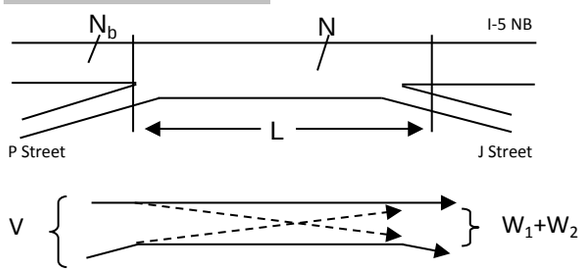


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	32.7
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,897
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

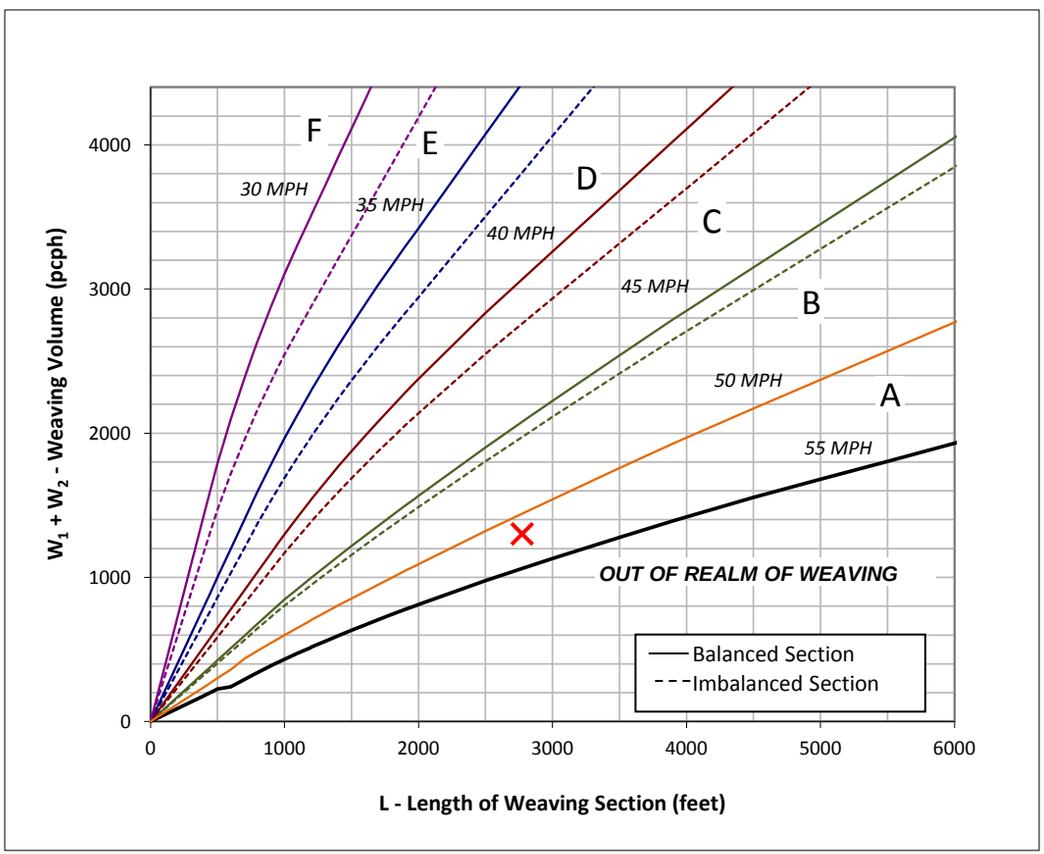
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,350	Volume (vph)*	397	Volume (vph)*	878
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,703	Volume (pcph)	405	Volume (pcph)	896



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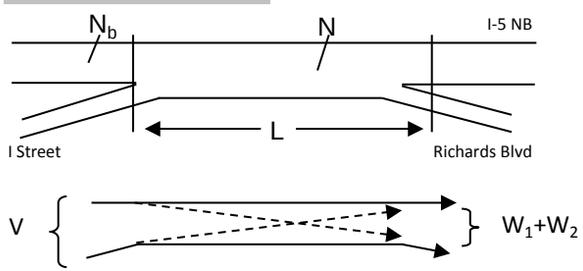


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **51.3**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,541**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

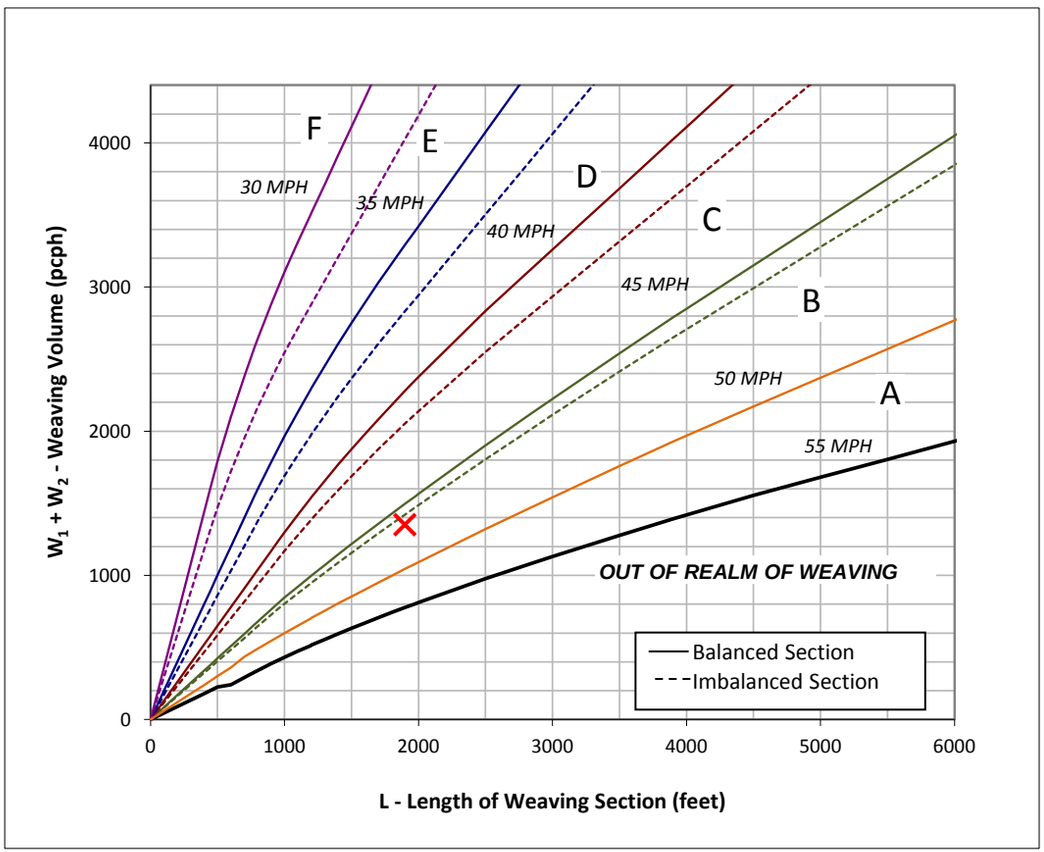
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,936	Volume (vph)*	421	Volume (vph)*	903
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,269	Volume (pcph)	429	Volume (pcph)	921



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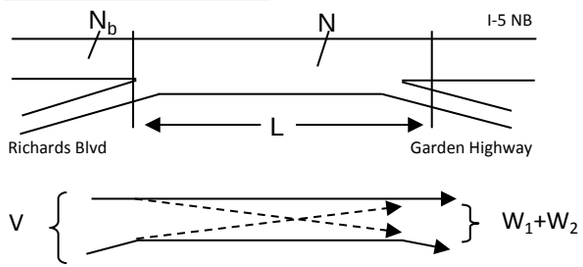


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	46.0
4. Weaving Intensity Factor (k)	1.61
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,506
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

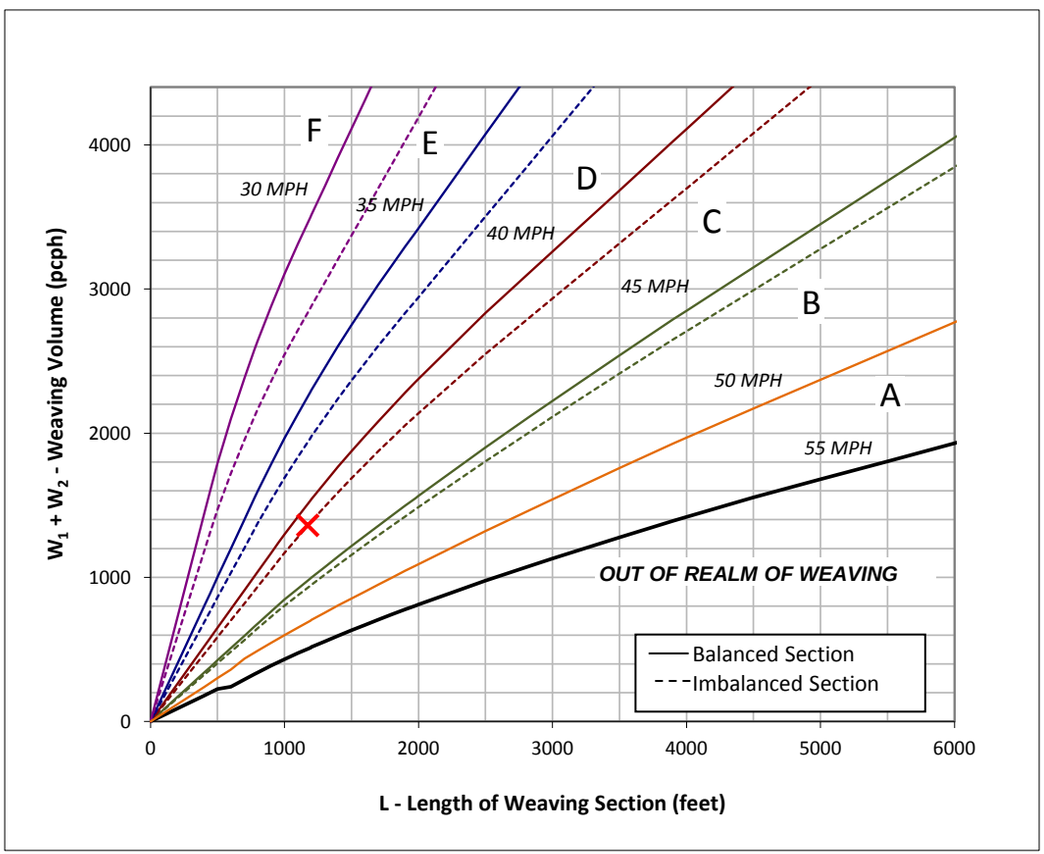
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,364	Volume (vph)*	373	Volume (vph)*	960
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,669	Volume (pcph)	380	Volume (pcph)	979



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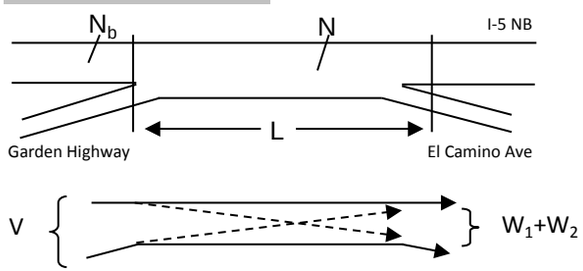


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**

   If optional exit lane, then "Y". Otherwise "N".

2. In the chart to the left, which two speed curves is the red "x" between?

   40 MPH and **45 MPH**

   If left of the 30 MPH curve, LOS is F. Select "-".

   If below the 55 MPH curve, out of the realm of weaving.

3. Interpolated Weaving Speed (S_w, mph) **41.4**
4. Weaving Intensity Factor (k) **2.40**
5. Service Volume (SV, pcph)

   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,440**
6. Level of Service (LOS) **C**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

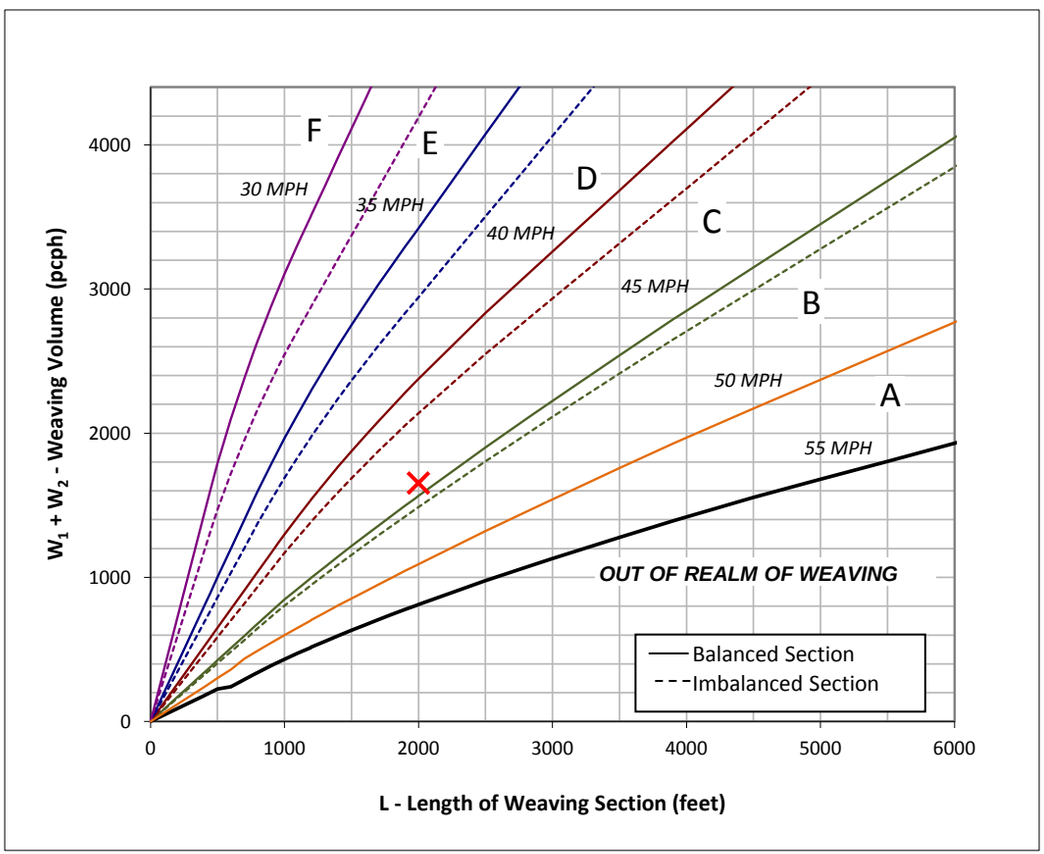
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

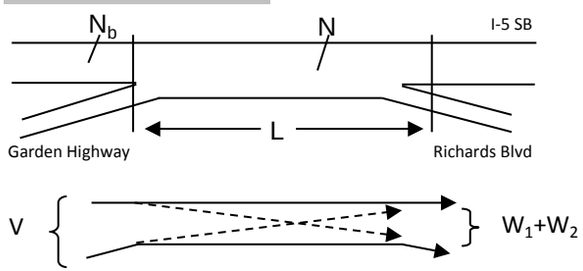
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,969	Volume (vph)*	629	Volume (vph)*	992
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,352	Volume (pcph)	642	Volume (pcph)	1,012



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	43.7
4. Weaving Intensity Factor (k)	2.14
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,816
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

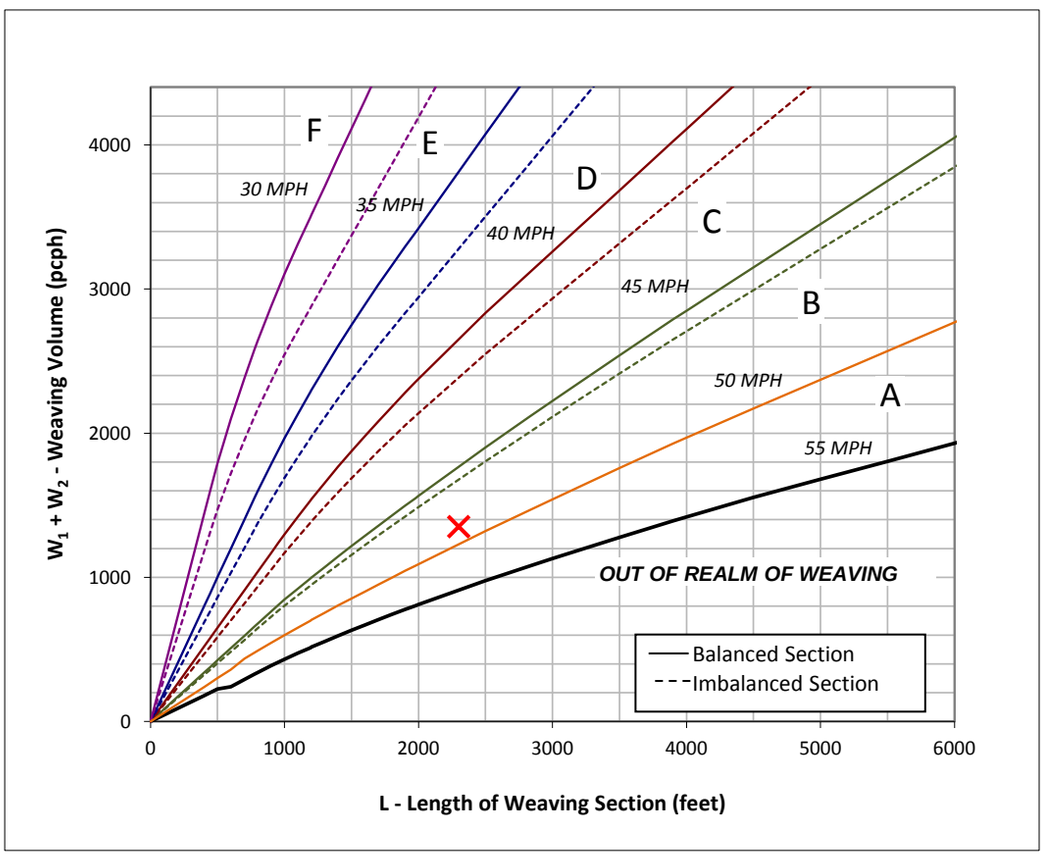
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

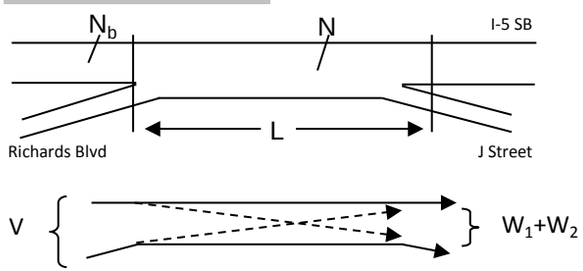
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project AM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,201	Volume (vph)*	299	Volume (vph)*	1,026
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,547	Volume (pcph)	305	Volume (pcph)	1,047



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	48.9
4. Weaving Intensity Factor (k)	1.29
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,527
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	267	274	102.6%	28.7	2.3	C
	Through	69	70	100.9%	29.9	5.7	C
	Right Turn	314	329	104.7%	10.5	1.5	B
	Subtotal	650	672	103.4%	19.9	1.2	B
EB	Left Turn						
	Through	588	520	88.4%	84.2	50.4	F
	Right Turn	54	48	88.9%	5.5	2.1	A
	Subtotal	642	568	88.4%	77.9	46.7	E
WB	Left Turn	658	598	90.9%	11.3	2.7	B
	Through	393	368	93.7%	6.7	1.8	A
	Right Turn						
	Subtotal	1,051	966	92.0%	9.5	2.1	A
Total		2,343	2,206	94.2%	29.8	10.6	C

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	60	102.8%	28.0	6.3	C
	Through	10	12	116.0%	30.6	16.3	C
	Right Turn	434	456	105.0%	9.5	1.4	A
	Subtotal	502	527	104.9%	12.1	1.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	426	362	85.0%	56.5	4.5	E
	Through	429	420	97.9%	2.0	0.6	A
	Right Turn						
	Subtotal	855	782	91.5%	27.3	2.4	C
WB	Left Turn						
	Through	993	904	91.0%	21.7	3.9	C
	Right Turn	810	728	89.9%	5.2	0.3	A
	Subtotal	1,803	1,632	90.5%	14.4	2.4	B
Total		3,160	2,941	93.1%	17.3	1.2	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	269	257	95.6%	39.1	15.3	D
	Through	4	4	100.0%	20.9	21.5	C
	Right Turn	4	5	130.0%	7.3	6.7	A
	Subtotal	277	266	96.2%	38.5	14.9	D
SB	Left Turn	34	37	108.2%	39.4	7.0	D
	Through	8	8	95.0%	23.2	12.6	C
	Right Turn	166	157	94.5%	16.9	4.1	B
	Subtotal	208	201	96.7%	21.5	3.9	C
EB	Left Turn	80	86	108.0%	27.9	3.7	C
	Through	693	708	102.2%	12.7	2.8	B
	Right Turn	90	93	103.1%	2.1	0.1	A
	Subtotal	863	887	102.8%	13.1	2.2	B
WB	Left Turn	18	12	68.9%	37.8	14.4	D
	Through	1,368	1,264	92.4%	37.1	9.4	D
	Right Turn	9	8	88.9%	37.9	24.1	D
	Subtotal	1,395	1,284	92.0%	37.1	9.4	D
Total		2,743	2,639	96.2%	28.1	5.8	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	86	96.6%	37.7	7.5	D
	Through	5	6	120.0%	30.2	18.4	C
	Right Turn	15	16	104.0%	5.4	4.0	A
	Subtotal	109	108	98.7%	33.2	6.8	C
SB	Left Turn	39	40	101.5%	28.5	5.7	C
	Through	5	2	48.0%	11.0	14.2	B
	Right Turn	17	14	84.7%	16.3	14.0	B
	Subtotal	61	56	92.5%	24.9	5.0	C
EB	Left Turn	13	14	107.7%	45.3	12.6	D
	Through	706	712	100.9%	2.7	0.5	A
	Right Turn	12	14	120.0%	2.4	1.2	A
	Subtotal	731	741	101.3%	3.4	0.7	A
WB	Left Turn	2	2	120.0%	23.1	31.1	C
	Through	1,289	1,218	94.5%	18.9	8.0	B
	Right Turn	10	8	80.0%	17.3	14.4	B
	Subtotal	1,301	1,228	94.4%	18.9	8.0	B
Total		2,202	2,133	96.9%	14.5	5.0	B

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	20	83.3%	37.6	12.1	D
	Through	5	5	104.0%	28.6	25.6	C
	Right Turn	24	24	100.0%	9.3	3.7	A
	Subtotal	53	49	92.8%	24.6	8.3	C
SB	Left Turn	24	24	101.7%	36.1	13.9	D
	Through	19	16	86.3%	36.5	14.8	D
	Right Turn	49	51	103.7%	19.0	3.1	B
	Subtotal	92	92	99.6%	26.5	4.8	C
EB	Left Turn	8	8	100.0%	46.9	20.0	D
	Through	747	743	99.4%	5.5	1.0	A
	Right Turn	5	6	112.0%	4.6	8.1	A
	Subtotal	760	756	99.5%	5.9	0.8	A
WB	Left Turn	11	13	120.0%	41.0	21.8	D
	Through	1,228	1,191	97.0%	11.0	6.4	B
	Right Turn	10	10	96.0%	20.7	34.9	C
	Subtotal	1,249	1,214	97.2%	11.4	6.5	B
Total		2,154	2,111	98.0%	10.4	4.0	B

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	80.0%	27.4	34.0	C
	Through	5	6	128.0%	31.2	20.1	C
	Right Turn	8	5	65.0%	5.5	4.6	A
	Subtotal	17	15	87.1%	31.6	14.7	C
SB	Left Turn	8	4	55.0%	30.7	26.0	C
	Through	5	6	120.0%	17.1	12.6	B
	Right Turn	70	76	108.6%	16.0	5.1	B
	Subtotal	83	86	104.1%	17.7	5.3	B
EB	Left Turn	16	13	80.0%	45.0	18.7	D
	Through	774	776	100.2%	4.1	0.8	A
	Right Turn	5	4	80.0%	1.5	2.2	A
	Subtotal	795	792	99.7%	4.7	0.9	A
WB	Left Turn	1	1	120.0%	11.6	25.3	B
	Through	1,175	1,120	95.3%	9.0	1.3	A
	Right Turn	3	5	173.3%	7.4	7.7	A
	Subtotal	1,179	1,126	95.5%	9.1	1.4	A
Total		2,074	2,020	97.4%	7.9	1.0	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	83	76.7%	35.9	13.0	D
	Through	27	22	81.5%	37.0	14.5	D
	Right Turn	246	197	80.2%	20.8	5.6	C
	Subtotal	381	302	79.3%	25.9	6.7	C
SB	Left Turn	53	45	85.3%	33.1	6.2	C
	Through	89	91	102.0%	29.8	5.8	C
	Right Turn	76	80	104.7%	30.0	7.9	C
	Subtotal	218	216	98.9%	30.8	4.8	C
EB	Left Turn	4	4	110.0%	31.7	23.5	C
	Through	699	682	97.6%	28.0	4.2	C
	Right Turn	87	95	109.0%	24.8	6.4	C
	Subtotal	790	782	98.9%	27.7	4.2	C
WB	Left Turn	155	145	93.7%	42.7	7.3	D
	Through	997	970	97.3%	18.0	2.8	B
	Right Turn	14	16	114.3%	13.5	7.6	B
	Subtotal	1,166	1,131	97.0%	21.1	2.7	C
Total		2,555	2,430	95.1%	24.7	1.7	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	29	80.0%	31.7	7.2	C
	Through	3	3	93.3%	26.9	31.2	C
	Right Turn	28	28	101.4%	7.1	3.0	A
	Subtotal	67	60	89.6%	21.3	5.6	C
SB	Left Turn	84	78	92.4%	29.0	7.4	C
	Through	63	51	81.3%	26.3	5.3	C
	Right Turn	134	128	95.2%	8.3	1.7	A
	Subtotal	281	256	91.2%	18.2	2.8	B
EB	Left Turn	37	34	90.8%	40.9	7.5	D
	Through	917	840	91.6%	7.1	1.8	A
	Right Turn	44	45	102.7%	5.9	2.0	A
	Subtotal	998	919	92.1%	8.2	1.6	A
WB	Left Turn	7	6	85.7%	38.1	26.4	D
	Through	918	892	97.2%	7.4	1.4	A
	Right Turn	17	17	98.8%	5.0	2.4	A
	Subtotal	942	915	97.1%	7.6	1.3	A
Total		2,288	2,150	94.0%	9.5	1.0	A

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	23	99.1%	40.8	10.4	D
	Through	6	6	100.0%	34.7	21.8	C
	Right Turn	30	30	98.7%	11.6	3.2	B
	Subtotal	59	58	99.0%	25.0	6.3	C
SB	Left Turn	29	28	97.9%	36.2	14.7	D
	Through	10	10	96.0%	50.5	14.0	D
	Right Turn	27	26	97.8%	12.0	5.5	B
	Subtotal	66	64	97.6%	29.3	7.3	C
EB	Left Turn	14	19	134.3%	40.5	12.8	D
	Through	988	901	91.2%	7.6	2.1	A
	Right Turn	27	26	94.8%	5.9	2.9	A
	Subtotal	1,029	945	91.9%	8.2	1.9	A
WB	Left Turn	18	16	88.9%	46.3	20.8	D
	Through	892	866	97.0%	7.5	1.1	A
	Right Turn	6	6	106.7%	6.8	6.4	A
	Subtotal	916	888	96.9%	8.2	1.3	A
Total		2,070	1,956	94.5%	9.4	1.3	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	51	84.7%	76.4	19.6	E
	Through	3,903	3,574	91.6%	34.4	8.9	C
	Right Turn	9	9	97.8%	24.8	18.6	C
	Subtotal	3,972	3,634	91.5%	35.0	8.9	C
SB	Left Turn						
	Through	1,746	1,778	101.8%	23.0	7.7	C
	Right Turn	845	813	96.2%	7.8	2.9	A
	Subtotal	2,591	2,591	100.0%	18.2	6.3	B
EB	Left Turn	776	664	85.5%	47.4	11.9	D
	Through						
	Right Turn	117	106	90.6%	8.8	5.4	A
	Subtotal	893	770	86.2%	42.1	11.0	D
WB	Left Turn						
	Through	5	5	96.0%	53.8	44.6	D
	Right Turn	7	8	108.6%	27.5	22.0	C
	Subtotal	12	12	103.3%	48.4	21.6	D
Total		7,468	7,006	93.8%	29.5	5.9	C

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	9	7	80.0%	5.0	1.3	A
	Right Turn	2	2	120.0%	1.4	1.5	A
	Subtotal	11	10	87.3%	4.4	0.8	A
SB	Left Turn	70	66	93.7%	4.9	1.0	A
	Through	3	4	133.3%	4.7	0.9	A
	Right Turn						
	Subtotal	73	70	95.3%	4.9	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	2	160.0%	2.5	3.3	A
	Through						
	Right Turn	297	298	100.3%	5.2	0.7	A
	Subtotal	298	300	100.5%	5.2	0.7	A
Total		382	379	99.2%	5.1	0.7	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	288	99.3%	6.9	0.5	A
	Through	45	39	86.2%	7.2	1.6	A
	Right Turn						
	Subtotal	335	327	97.6%	7.0	0.4	A
SB	Left Turn						
	Through	27	24	87.4%	7.6	0.7	A
	Right Turn	8	12	155.0%	4.9	1.3	A
	Subtotal	35	36	102.9%	6.6	0.7	A
EB	Left Turn	8	8	105.0%	3.8	2.1	A
	Through						
	Right Turn	64	60	93.1%	2.9	0.4	A
	Subtotal	72	68	94.4%	3.1	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		442	431	97.5%	6.3	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	130	106	81.2%	46.7	16.9	D
	Through	359	294	81.9%	50.5	15.1	D
	Right Turn	210	151	72.0%	45.1	12.7	D
	Subtotal	699	551	78.8%	48.2	14.2	D
SB	Left Turn	36	32	90.0%	52.5	21.0	D
	Through	282	273	96.7%	32.5	7.4	C
	Right Turn	15	14	96.0%	29.7	14.3	C
	Subtotal	333	320	96.0%	34.4	7.2	C
EB	Left Turn	1	0	40.0%	0.5	1.7	A
	Through	55	59	106.9%	40.4	5.9	D
	Right Turn	18	16	86.7%	25.9	11.8	C
	Subtotal	74	75	101.1%	37.1	6.6	D
WB	Left Turn	176	173	98.4%	41.5	10.6	D
	Through	76	72	94.7%	47.8	10.9	D
	Right Turn	19	18	96.8%	31.4	9.0	C
	Subtotal	271	264	97.3%	42.6	9.2	D
Total		1,377	1,209	87.8%	42.8	7.3	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	38	88.4%	40.8	8.1	D
	Through	105	106	101.3%	32.6	6.4	C
	Right Turn	22	28	125.5%	29.7	13.2	C
	Subtotal	170	172	101.2%	33.8	4.8	C
SB	Left Turn	5	4	72.0%	42.7	40.2	D
	Through	28	22	80.0%	49.5	14.3	D
	Right Turn	7	7	102.9%	17.8	13.1	B
	Subtotal	40	33	83.0%	43.7	8.0	D
EB	Left Turn						
	Through	235	195	82.9%	34.7	7.2	C
	Right Turn	61	48	78.0%	26.6	10.8	C
	Subtotal	296	242	81.9%	33.0	6.8	C
SW	Left Turn	34	33	97.6%	4.4	2.4	A
	Through	1,621	1,632	100.7%	8.3	1.8	A
	Right Turn	160	152	94.8%	11.1	3.1	B
	Subtotal	1,815	1,817	100.1%	8.4	1.9	A
Total		2,321	2,264	97.6%	13.5	1.9	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	61	112.6%	12.4	2.3	B
	Through	3,402	3,359	98.7%	11.7	1.1	B
	Right Turn	2	2	80.0%	0.5	1.0	A
	Subtotal	3,458	3,422	98.9%	11.7	1.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	258	248	96.3%	20.7	2.2	C
	Through	3	3	106.7%	8.6	9.9	A
	Right Turn						
	Subtotal	261	252	96.4%	20.6	2.3	C
WB	Left Turn						
	Through	10	10	96.0%	13.6	9.0	B
	Right Turn	3	4	133.3%	5.4	6.5	A
	Subtotal	13	14	104.6%	12.4	7.4	B
Total		3,732	3,687	98.8%	12.3	0.9	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	31	99.4%	13.5	6.4	B
	Through	13	15	116.9%	10.8	7.6	B
	Right Turn						
	Subtotal	44	46	104.5%	13.3	4.6	B
SB	Left Turn						
	Through	158	145	91.6%	15.3	3.8	B
	Right Turn	65	59	90.5%	9.0	3.7	A
	Subtotal	223	204	91.3%	13.4	3.8	B
EB	Left Turn						
	Through	8	8	105.0%	35.5	13.4	D
	Right Turn						
	Subtotal	8	8	105.0%	35.5	13.4	D
WB	Left Turn	79	78	98.2%	6.3	1.9	A
	Through	1,777	1,812	101.9%	8.6	1.5	A
	Right Turn	7	4	62.9%	2.8	3.0	A
	Subtotal	1,863	1,894	101.6%	8.5	1.5	A
Total		2,138	2,152	100.6%	9.2	1.4	A

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	120.0%	3.0	5.1	A
	Through						
	Right Turn	5	2	48.0%	0.8	1.8	A
	Subtotal	10	8	84.0%	3.2	4.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	344	350	101.9%	11.1	1.8	B
	Right Turn	6	6	106.7%	2.7	3.5	A
	Subtotal	350	357	101.9%	11.0	1.8	B
WB	Left Turn	29	27	92.4%	23.8	8.4	C
	Through	311	294	94.4%	2.7	0.6	A
	Right Turn						
	Subtotal	340	320	94.2%	4.5	1.0	A
Total		700	686	97.9%	7.9	1.3	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	8	152.0%	7.4	5.2	A
	Through						
	Right Turn	205	188	91.7%	6.0	1.4	A
	Subtotal	210	196	93.1%	6.0	1.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	344	346	100.5%	17.8	5.8	B
	Right Turn	5	4	88.0%	10.5	12.4	B
	Subtotal	349	350	100.3%	17.8	5.7	B
WB	Left Turn	92	88	95.2%	30.2	5.2	C
	Through	335	314	93.6%	5.5	0.9	A
	Right Turn						
	Subtotal	427	401	94.0%	10.9	1.4	B
Total		986	947	96.0%	12.5	2.3	B

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	20	76.9%	223.9	72.8	F
	Through	253	167	65.9%	220.0	48.3	F
	Right Turn						
	Subtotal	279	187	67.0%	219.7	46.8	F
SB	Left Turn						
	Through	75	69	92.3%	30.5	15.9	C
	Right Turn	401	376	93.8%	20.3	10.9	C
	Subtotal	476	445	93.5%	21.9	11.8	C
EB	Left Turn	446	425	95.3%	21.1	3.1	C
	Through						
	Right Turn	103	102	99.4%	4.2	0.8	A
	Subtotal	549	528	96.1%	17.9	3.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,304	1,160	88.9%	51.6	7.1	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	10	8	84.0%	0.0	0.0	A
	Right Turn						
	Subtotal	10	8	84.0%	0.0	0.0	A
SB	Left Turn						
	Through	35	33	94.9%	0.8	0.1	A
	Right Turn						
	Subtotal	35	33	94.9%	0.8	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		45	42	92.4%	0.6	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	197	93.9%	0.2	0.1	A
	Subtotal	210	197	93.9%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	92	94.8%	0.8	0.2	A
	Subtotal	97	92	94.8%	0.8	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	289	94.2%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	10	8	84.0%	0.0	0.0	A
	Subtotal	10	8	84.0%	0.0	0.0	A
SB	Left Turn Through Right Turn	35	33	93.7%	0.1	0.1	A
	Subtotal	35	33	93.7%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		45	41	91.6%	0.0	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	198	94.3%	0.2	0.1	A
	Subtotal	210	198	94.3%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	92	94.8%	0.2	0.1	A
	Subtotal	97	92	94.8%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	290	94.5%	0.2	0.1	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	234	221	94.5%	10.9	2.0	B
	Right Turn	20	20	100.0%	6.6	1.7	A
	Subtotal	254	241	95.0%	10.5	1.9	B
SB	Left Turn	86	77	89.3%	13.7	5.1	B
	Through	91	90	98.5%	5.6	1.0	A
	Right Turn	1	1	80.0%	0.0	0.0	A
	Subtotal	178	167	93.9%	9.2	2.7	A
EB	Left Turn	40	39	97.0%	6.2	2.1	A
	Through	9	13	142.2%	5.9	5.4	A
	Right Turn	11	11	101.8%	3.6	1.8	A
	Subtotal	60	63	104.7%	6.3	1.9	A
WB	Left Turn	192	194	100.8%	11.1	1.3	B
	Through	3	2	53.3%	4.5	4.9	A
	Right Turn	5	6	112.0%	5.1	3.8	A
	Subtotal	200	201	100.4%	10.9	1.3	B
Total		692	672	97.1%	9.8	1.6	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	5.2	2.5	A
	Through	243	241	99.3%	6.6	0.5	A
	Right Turn	68	79	115.9%	4.9	0.7	A
	Subtotal	316	326	103.0%	6.2	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	38	31	82.1%	6.4	0.9	A
	Through	145	139	95.7%	6.7	0.9	A
	Right Turn						
	Subtotal	183	170	92.9%	6.6	0.9	A
WB	Left Turn						
	Through	224	230	102.7%	6.7	0.7	A
	Right Turn	6	6	106.7%	4.2	3.3	A
	Subtotal	230	236	102.8%	6.6	0.8	A
Total		729	732	100.4%	6.4	0.6	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	5	3	64.0%	6.6	11.0	A
	Right Turn						
	Subtotal	5	3	64.0%	6.6	11.0	A
SB	Left Turn						
	Through	298	300	100.7%	18.6	2.5	B
	Right Turn	43	40	94.0%	13.6	3.7	B
	Subtotal	341	340	99.8%	18.0	2.2	B
EB	Left Turn	222	203	91.5%	33.6	7.5	C
	Through						
	Right Turn	10	10	100.0%	6.4	2.6	A
	Subtotal	232	213	91.9%	32.4	7.5	C
WB	Left Turn	105	105	99.8%	6.1	2.7	A
	Through	366	377	103.1%	12.6	2.6	B
	Right Turn	239	238	99.7%	6.2	1.1	A
	Subtotal	710	720	101.5%	9.6	1.8	A
Total		1,288	1,277	99.2%	15.6	2.4	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	90.9%	17.3	9.4	B
	Through	273	276	101.1%	5.5	0.9	A
	Right Turn	268	268	99.9%	5.3	0.9	A
	Subtotal	552	554	100.3%	5.7	0.7	A
SB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	279	286	102.7%	15.0	2.4	B
	Right Turn						
	Subtotal	280	286	102.3%	15.0	2.4	B
EB	Left Turn	5	3	64.0%	3.8	8.0	A
	Through	35	36	102.9%	13.0	3.6	B
	Right Turn	5	7	136.0%	5.0	4.8	A
	Subtotal	45	46	102.2%	12.4	3.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		877	886	101.0%	9.0	0.8	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	158	135	85.6%	22.3	3.3	C
	Right Turn	5	5	104.0%	2.4	2.0	A
	Subtotal	163	140	86.1%	21.6	3.2	C
SB	Left Turn	5	6	112.0%	13.0	10.8	B
	Through	322	313	97.1%	9.3	2.1	A
	Right Turn						
	Subtotal	327	318	97.4%	9.4	2.1	A
EB	Left Turn	5	6	120.0%	11.8	10.4	B
	Through	279	275	98.6%	8.6	1.1	A
	Right Turn	20	23	114.0%	6.5	3.1	A
	Subtotal	304	304	100.0%	8.6	1.0	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		794	763	96.1%	11.3	0.9	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	166	157	94.7%	9.4	1.2	A
	Through	445	466	104.6%	7.8	0.9	A
	Right Turn						
	Subtotal	611	623	101.9%	8.2	0.8	A
EB	Left Turn	5	3	64.0%	5.2	8.7	A
	Through	258	256	99.2%	7.8	1.4	A
	Right Turn	26	24	92.3%	6.9	2.9	A
	Subtotal	289	283	98.0%	7.7	1.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		900	906	100.7%	8.1	0.7	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	413	425	103.0%	6.5	1.0	A
	Right Turn	50	50	100.8%	4.1	1.2	A
	Subtotal	463	476	102.7%	6.3	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	170	169	99.5%	7.6	0.8	A
	Through	301	283	94.1%	9.2	0.7	A
	Right Turn						
	Subtotal	471	452	96.1%	8.5	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		934	928	99.4%	7.4	0.5	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	109	88	80.7%	133.5	32.2	F
	Through						
	Right Turn	597	475	79.6%	129.4	16.8	F
	Subtotal	706	563	79.8%	130.0	19.0	F
EB	Left Turn	614	560	91.3%	82.3	36.5	F
	Through	125	119	95.4%	75.3	41.2	E
	Right Turn						
	Subtotal	739	680	92.0%	81.0	37.2	F
WB	Left Turn						
	Through	142	138	96.9%	39.8	6.6	D
	Right Turn	24	23	95.0%	8.4	7.1	A
	Subtotal	166	160	96.6%	35.4	6.7	D
Total		1,611	1,403	87.1%	95.9	18.4	F

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	216	194	89.6%	85.7	42.9	F
	Through	468	475	101.5%	36.3	3.7	D
	Right Turn						
	Subtotal	684	669	97.8%	50.8	13.3	D
SB	Left Turn						
	Through						
	Right Turn	314	325	103.4%	35.2	15.9	D
	Subtotal	314	325	103.4%	35.2	15.9	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,387	2,320	97.2%	9.0	2.2	A
	Right Turn	46	46	100.0%	4.0	1.5	A
	Subtotal	2,433	2,366	97.3%	8.9	2.2	A
Total		3,431	3,360	97.9%	19.8	3.5	B

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	150	114	76.0%	99.1	17.7	F
	Through	128	110	86.3%	100.5	16.8	F
	Right Turn						
	Subtotal	278	224	80.7%	99.8	17.2	F
SB	Left Turn						
	Through	46	44	96.5%	41.8	19.9	D
	Right Turn	296	283	95.7%	19.6	7.3	B
	Subtotal	342	328	95.8%	22.8	9.7	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	16	88.9%	22.8	4.3	C
	Through	1,987	1,977	99.5%	19.2	2.5	B
	Right Turn	35	32	91.4%	13.2	6.0	B
	Subtotal	2,040	2,025	99.3%	19.1	2.4	B
Total		2,660	2,577	96.9%	26.6	3.3	C

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	321	342	106.4%	29.7	2.5	C
	Right Turn	150	150	99.7%	14.8	4.3	B
	Subtotal	471	491	104.3%	25.2	2.2	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	50	46	91.2%	5.4	0.9	A
	Through	1,890	1,875	99.2%	6.0	1.4	A
	Right Turn						
	Subtotal	1,940	1,920	99.0%	6.0	1.4	A
Total		2,411	2,412	100.0%	9.9	1.0	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	381	382	100.2%	33.0	4.7	C
	Through	446	453	101.5%	29.5	1.9	C
	Right Turn						
	Subtotal	827	834	100.9%	31.1	2.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,559	1,542	98.9%	11.3	0.8	B
	Right Turn	17	22	129.4%	6.0	3.5	A
	Subtotal	1,576	1,564	99.3%	11.2	0.8	B
Total		2,403	2,399	99.8%	18.1	0.9	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	25	22	89.6%	33.4	7.8	C
	Through	220	220	100.0%	34.4	2.9	C
	Right Turn	26	32	121.5%	15.0	11.0	B
	Subtotal	271	274	101.1%	32.2	4.1	C
SB	Left Turn	222	217	97.8%	33.8	3.8	C
	Through	326	317	97.2%	37.1	3.2	D
	Right Turn						
	Subtotal	548	534	97.4%	35.8	3.1	D
EB	Left Turn	5	5	96.0%	18.7	20.2	B
	Through	649	652	100.5%	23.1	2.4	C
	Right Turn	336	332	98.8%	27.0	3.6	C
	Subtotal	990	989	99.9%	24.4	2.0	C
NB	Left Turn						
	Through						
	Right Turn	146	148	101.1%	3.8	0.8	A
	Subtotal	146	148	101.1%	3.8	0.8	A
Total		1,955	1,945	99.5%	27.1	2.2	C

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	297	302	101.7%	19.0	14.8	B
	Right Turn	133	130	97.7%	18.5	21.8	B
	Subtotal	430	432	100.5%	18.9	17.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	387	393	101.5%	15.8	8.9	B
	Through	904	914	101.2%	11.3	1.2	B
	Right Turn	71	73	102.5%	8.7	2.1	A
	Subtotal	1,362	1,380	101.3%	12.5	3.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,792	1,812	101.1%	13.9	6.2	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	65	72	110.2%	6.7	1.6	A
	Through	306	314	102.6%	4.3	0.5	A
	Right Turn						
	Subtotal	371	386	103.9%	4.8	0.6	A
EB	Left Turn						
	Through	893	893	100.0%	13.4	0.8	B
	Right Turn	151	154	101.7%	9.0	1.6	A
	Subtotal	1,044	1,046	100.2%	12.8	0.8	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,415	1,432	101.2%	10.6	0.6	B

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	127	109.7%	36.2	4.8	D
	Through	135	133	98.4%	20.5	2.5	C
	Right Turn	179	188	105.0%	7.8	2.7	A
	Subtotal	430	448	104.2%	19.7	2.8	B
SB	Left Turn	61	62	101.0%	37.7	5.4	D
	Through	83	80	95.9%	23.2	6.5	C
	Right Turn	14	14	100.0%	3.0	2.0	A
	Subtotal	158	155	98.2%	27.4	5.9	C
EB	Left Turn	27	27	100.7%	42.4	11.0	D
	Through	295	310	105.1%	23.3	3.0	C
	Right Turn	74	80	108.6%	9.8	3.0	A
	Subtotal	396	418	105.5%	22.0	2.7	C
WB	Left Turn	211	188	88.9%	36.1	4.4	D
	Through	414	367	88.6%	21.3	4.5	C
	Right Turn	93	78	83.9%	6.3	1.2	A
	Subtotal	718	632	88.1%	23.8	3.1	C
Total		1,702	1,653	97.1%	22.5	2.3	C

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	21	80.0%	16.8	7.3	B
	Through	10	8	76.0%	15.4	11.3	B
	Right Turn	218	219	100.4%	8.2	1.1	A
	Subtotal	254	247	97.3%	9.1	1.0	A
SB	Left Turn	7	12	165.7%	25.9	11.0	C
	Through	3	3	93.3%	9.2	12.7	A
	Right Turn	1	1	120.0%	2.4	4.7	A
	Subtotal	11	16	141.8%	25.7	9.7	C
EB	Left Turn	3	2	53.3%	17.7	22.7	B
	Through	514	535	104.1%	10.2	2.7	B
	Right Turn	18	17	95.6%	6.7	1.9	A
	Subtotal	535	554	103.6%	10.2	2.7	B
WB	Left Turn	33	27	82.4%	28.3	6.3	C
	Through	691	618	89.4%	9.8	2.8	A
	Right Turn	15	15	101.3%	9.8	5.4	A
	Subtotal	739	660	89.3%	10.6	2.8	B
Total		1,539	1,477	96.0%	10.3	2.2	B

Intersection 47 **Jibboom St/Railyards Blvd** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	331	88.4%	44.3	17.6	E
	Right Turn	264	231	87.4%	39.3	18.7	E
	Subtotal	638	562	88.0%	42.3	18.0	E
SB	Left Turn	86	72	84.2%	22.8	22.4	C
	Through	409	388	94.9%	43.6	40.5	E
	Right Turn						
	Subtotal	495	460	93.0%	40.6	38.5	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	297	285	96.0%	21.8	13.3	C
	Through						
	Right Turn	43	44	101.4%	3.1	1.0	A
	Subtotal	340	329	96.7%	19.4	11.6	C
Total		1,473	1,351	91.7%	35.5	19.4	E

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	5	4	80.0%	8.7	8.7	A
	Right Turn	273	272	99.6%	6.8	1.3	A
	Subtotal	278	276	99.3%	6.9	1.2	A
SB	Left Turn	6	6	106.7%	7.3	7.2	A
	Through	29	30	102.1%	6.7	1.8	A
	Right Turn						
	Subtotal	35	36	102.9%	7.2	1.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	251	259	103.3%	7.5	1.4	A
	Through						
	Right Turn	5	4	72.0%	1.8	1.8	A
	Subtotal	256	263	102.7%	7.4	1.4	A
Total		569	575	101.0%	7.2	0.9	A

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	4.0	3.2	A
	Through	100	95	94.8%	3.9	0.8	A
	Right Turn	58	42	71.7%	2.3	0.4	A
	Subtotal	163	141	86.4%	3.5	0.7	A
SB	Left Turn	5	5	104.0%	5.5	5.1	A
	Through	21	18	83.8%	5.7	2.9	A
	Right Turn	71	77	108.2%	2.4	0.5	A
	Subtotal	97	100	102.7%	3.3	0.9	A
EB	Left Turn	105	107	102.1%	13.0	2.2	B
	Through	169	168	99.4%	7.5	1.5	A
	Right Turn	5	4	80.0%	2.1	3.0	A
	Subtotal	279	279	100.1%	9.7	1.2	A
WB	Left Turn	224	233	103.9%	15.3	2.1	B
	Through	180	179	99.6%	10.7	1.3	B
	Right Turn	5	7	144.0%	5.8	4.4	A
	Subtotal	409	419	102.5%	13.3	1.0	B
Total		948	939	99.0%	9.7	0.5	A

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	100.0%	5.4	13.1	A
	Through	164	166	101.0%	43.3	4.7	D
	Right Turn	71	70	99.2%	6.3	2.5	A
	Subtotal	237	238	100.4%	32.1	3.6	C
SB	Left Turn	76	73	96.3%	7.3	3.7	A
	Through	188	128	68.1%	29.6	4.0	C
	Right Turn	58	42	71.7%	11.1	7.5	B
	Subtotal	322	243	75.4%	19.8	3.0	B
EB	Left Turn	54	50	93.3%	57.2	11.9	E
	Through	457	435	95.2%	38.5	2.4	D
	Right Turn	5	3	56.0%	9.8	15.6	A
	Subtotal	516	488	94.7%	40.6	2.1	D
WB	Left Turn	163	155	95.2%	62.8	7.2	E
	Through	672	675	100.4%	47.5	8.1	D
	Right Turn	125	123	98.2%	25.3	7.6	C
	Subtotal	960	953	99.3%	47.2	7.1	D
Total		2,035	1,922	94.4%	40.2	3.6	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	80.0%	8.7	20.6	A
	Through	4	6	150.0%	36.3	29.2	D
	Right Turn	25	30	120.0%	5.4	2.3	A
	Subtotal	30	37	122.7%	13.2	7.9	B
SB	Left Turn	248	250	100.8%	26.0	5.5	C
	Through	124	116	93.2%	21.4	6.3	C
	Right Turn	134	122	91.0%	12.3	4.0	B
	Subtotal	506	488	96.4%	21.4	4.5	C
EB	Left Turn	26	23	89.2%	37.5	12.9	D
	Through	573	545	95.1%	24.9	4.1	C
	Right Turn	5	4	88.0%	11.9	16.5	B
	Subtotal	604	572	94.8%	25.3	4.2	C
WB	Left Turn	121	144	119.3%	36.2	6.6	D
	Through	825	852	103.3%	19.7	2.0	B
	Right Turn	78	70	90.3%	17.7	4.9	B
	Subtotal	1,024	1,067	104.2%	21.7	2.4	C
Total		2,164	2,164	100.0%	22.5	2.3	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	272	255	93.8%	9.6	1.1	A
	Through	1,476	1,486	100.7%	8.0	0.6	A
	Right Turn	5	4	88.0%	1.3	2.0	A
	Subtotal	1,753	1,746	99.6%	8.2	0.5	A
EB	Left Turn						
	Through	302	309	102.3%	17.1	3.3	B
	Right Turn	12	14	113.3%	15.6	7.0	B
	Subtotal	314	322	102.7%	16.9	3.3	B
WB	Left Turn	24	27	111.7%	25.4	10.2	C
	Through	55	52	95.3%	13.2	4.7	B
	Right Turn						
	Subtotal	79	79	100.3%	17.3	3.7	B
Total		2,146	2,147	100.1%	9.9	0.6	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	218	214	98.3%	13.1	1.4	B
	Through	1,193	1,212	101.6%	12.8	0.7	B
	Right Turn	101	102	101.4%	9.0	2.6	A
	Subtotal	1,512	1,529	101.1%	12.6	0.7	B
EB	Left Turn						
	Through	308	296	96.0%	15.2	2.5	B
	Right Turn	5	5	96.0%	4.9	5.3	A
	Subtotal	313	300	96.0%	15.1	2.5	B
WB	Left Turn	6	5	86.7%	15.8	16.2	B
	Through	49	47	95.5%	14.7	3.3	B
	Right Turn						
	Subtotal	55	52	94.5%	14.7	2.7	B
Total		1,880	1,882	100.1%	13.1	0.7	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	450	283	725	367	700	316	59%	0%
	Through/Right	2,725	175	97	400	212	500	181	0%	0%
SB	Left Turn	325	100	19	150	42	150	41	0%	0%
	Left/Through	1,500	150	11	200	31	200	30	0%	0%
	Right Turn	325	100	9	150	30	150	32	0%	0%
WB	Left Turn	1,275	125	22	200	36	200	40	0%	0%
	Through	275	75	24	175	39	200	41	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	250	17	325	17	300	11	0%	5%
	Through	325	25	13	50	38	50	43	0%	0%
NB	Left/Through	325	50	10	100	26	100	28	0%	0%
	Right Turn	1,175	100	13	150	37	150	41	0%	0%
WB	Through	225	200	30	275	17	250	18	0%	6%
	Right Turn	225	25	18	75	91	100	127	0%	0%
0										

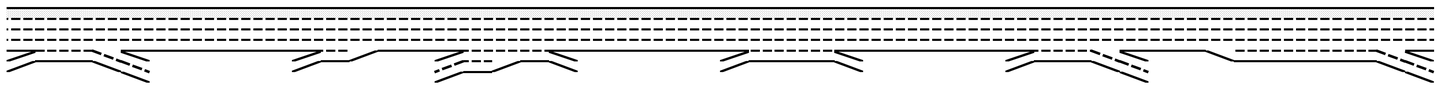
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	125	17	175	32	150	33	0%	0%
	Through	600	100	15	150	30	150	34	0%	0%
	Through/Right	600	200	22	300	44	300	46	0%	0%
NB	Right Turn	1,025	25	3	25	11	25	16	0%	0%
NE	Shared	975	75	17	150	33	150	41	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	50	14	75	27	75	27	0%	0%
SB	Left Turn	300	50	62	75	115	75	110	0%	0%
	Left/Through	300	75	120	75	150	75	140	11%	2%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

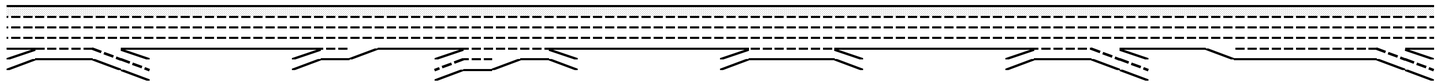
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	5,658	6,457	6,457	7,424	7,959	7,959	8,408	8,408	8,125	8,125
On Ramp Volume	1,070		967	1,037		1,246		750		
Off Ramp Volume	271			502		797		1,033		2,034
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	5,658	6,457	6,457	7,424	7,959	7,959	8,408	8,408	8,125	8,125
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	6,738	7,690	7,690	8,841	9,478	9,478	10,013	10,013	9,676	9,676
Flow (pcphpl)	1,685	1,922	1,922	2,210	2,370	2,370	2,503	2,503	2,419	1,935
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.72	0.82	0.82	0.94	1.01	1.01	1.07	1.07	1.03	0.82
Speed (mph)	63.9	61.1	61.1	55.7	-	-	-	-	-	60.9
Density (pcphpl)	26.4	31.4	31.4	39.7	-	-	-	-	-	31.8
LOS	D	D	D	E	F	F	F	F	F	D
Calculate Operations for Segment GP Lanes										
Flow (pcph)	8,001		8,712	10,011		10,810		10,888		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.68		0.93	0.85		0.92		0.93		
Flow Rate (pcphpl)	1,600		2,178	2,002		2,162		2,178		
Speed (mph)	64.4		56.4	59.9		56.8		56.4		
Density (pcphpl)	24.8		38.6	33.4		38.1		38.6		
LOS	C		E	D		E		E		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

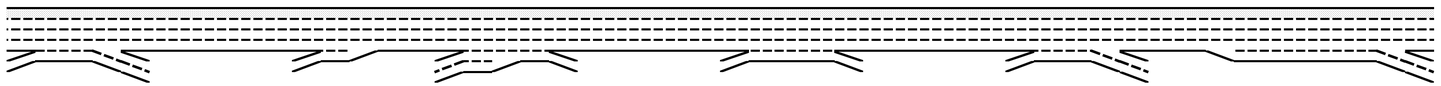
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,714			9,418		9,949		9,761		7,451
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.82			1.00		1.06		1.04		0.79
Flow Rate (pcphpl)	1,929			2,355		2,487		2,440		1,863
Speed (mph)	61.0			-		-		-		62.0
Density (pcphpl)	31.6			-		-		-		30.1
LOS	D			F		F		F		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

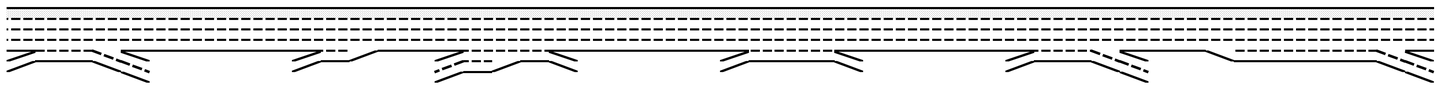
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	1,070		967	1,037		1,246		750		
PHF	0.86		0.96	0.9		0.95		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	1,263		1,022	1,170		1,331		875		
Flow Rate (pcphpl)	1,263		1,022	585		1,331		875		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.60		0.49	0.28		0.63		0.42		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

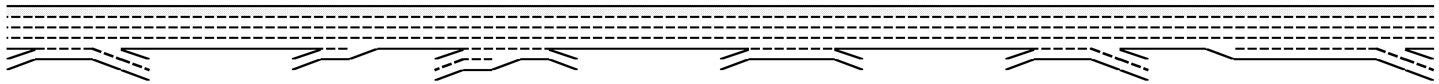
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	271			502		797		1,033		2,034
PHF	0.96			0.86		0.94		0.93		0.96
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	287			592		861		1,127		2,225
Flow Rate (pcphpl)	143			592		861		564		1,112
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.07			0.28		0.41		0.27		0.48
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,690							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.090							
v_{12} (pcph)			692							
v_3 (pcph)										
v_{34} (pcph)			6,998							
v_{12a} (pcph)			3,076							
v_{R12a} (pcph)			4,098							
Speed Index			0.52							
Area Speed			53.1							
Outer Lanes Volume			2,307							
Outer Lanes Speed			58.4							
Segment Speed			55.8							
v/c ratio			0.89							
Density			34.3							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

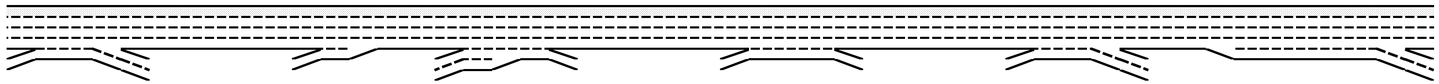
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										33.9
LOS										D
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)						1,020				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)						1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)						226				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)						241				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

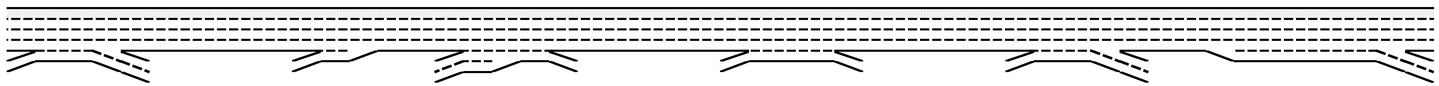
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)						-223				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)						-242				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)						8,182				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)						8,871				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

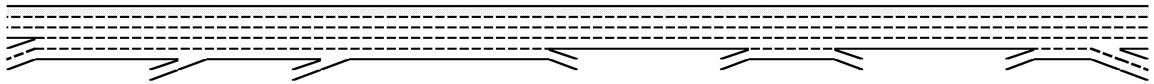
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type						One-sided				
Length						900				
Segment Lanes						6				
Weave Lanes						3				
Weave Flow (pcph)						0				
Non-Weave Flow						9,961				
Segment Flow						9,960				
Max Weave Length						1,030				
Length Check						OK				
Ideal Weave Capacity						2,340				
f_{HV}						0.973				
f_P						1.000				
Capacity Condition 1						13,654				
Capacity Condition 2						-107,353,193				
v/c ratio						0.00				
Interchange Density						1				
Lane Changes On to ML						2				
Lane Changes ML to Off						0				
Lane Changes On to Off						0				
Min Lane Change Rate						483				
Weave LC Rate						411				
Non-Weave LC Rate 1						1,384				
Non-Weave LC Rate 2						3,910				
Non-Weave LC Rate 3						-184				
Segment LC Rate						1,795				
Weave Intensity Factor						0.390				
Weave Speed						51.0				
Non-Weave Speed						53.6				
Segment Speed						53.6				
Density						-				
LOS						F				
Summarize Segment Operations										
Segment v/c ratio		0.82	0.89		1.01	0.00	1.07		1.03	
Segment Density		31.4	34.3	-	-	-	-	-	-	33.9
Segment LOS		D	D	F	F	F	F	F	F	D
Over Capacity				Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Exiting GP Lanes	Entering GP Lanes	
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

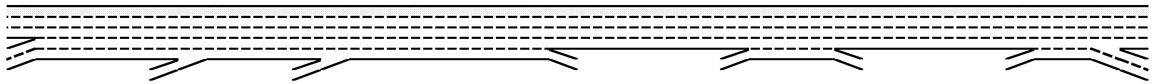
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	3,373	5,590	6,035	6,662	6,148	6,148	6,346	6,346
On Ramp Volume	2,217	445	627			848		781
Off Ramp Volume				514		650		756
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	3,373	5,590	6,035	6,662	6,148	6,148	6,346	6,346
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,682	6,102	6,588	7,273	6,712	6,712	6,928	6,928
Flow (pcphpl)	1,227	1,220	1,318	1,455	1,678	1,678	1,732	1,732
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.52	0.52	0.56	0.62	0.71	0.71	0.74	0.74
Speed (mph)	65.0	65.0	65.0	65.0	63.9	63.9	63.4	63.4
Density (pcphpl)	18.9	18.8	20.3	22.4	26.3	26.3	27.3	27.3
LOS	C	C	C	C	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	6,185	6,640	7,303			7,668		7,745
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.53	0.57	0.62			0.65		0.66
Flow Rate (pcphpl)	1,237	1,328	1,461			1,534		1,549
Speed (mph)	65.0	65.0	64.9			64.7		64.7
Density (pcphpl)	19.0	20.4	22.5			23.7		23.9
LOS	C	C	C			C		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

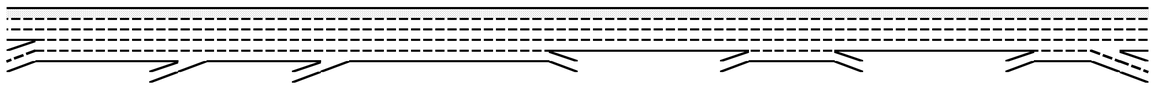
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				6,718		6,892		6,946
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.71		0.73		0.74
Flow Rate (pcphpl)				1,679		1,723		1,736
Speed (mph)				63.9		63.5		63.4
Density (pcphpl)				26.3		27.1		27.4
LOS				D		D		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8

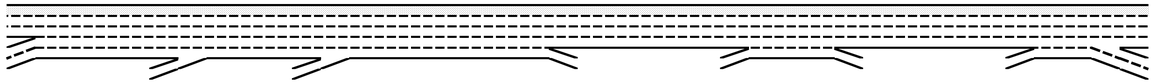


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,217	445	627			848		781
PHF	0.93	0.84	0.89			0.9		0.97
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,503	538	715			956		817
Flow Rate (pcphpl)	1,252	538	715			956		817
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.54	0.26	0.34			0.46		0.39

Location	1	2	3	4	5	6	7	8



Key

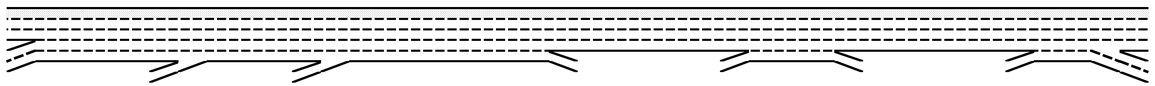
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				514		650		756
PHF				0.94		0.85		0.96
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				555		776		799
Flow Rate (pcphpl)				555		776		400
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.26		0.37		0.19
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		4,638	4,809					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.151	0.128					
v_{12} (pcph)		698	618					
v_3 (pcph)								
v_{34} (pcph)		3,939	4,192					
v_{12a} (pcph)		1,855	1,924					
v_{R12a} (pcph)		2,393	2,639					
Speed Index		0.35	0.35					
Area Speed		56.8	56.9					
Outer Lanes Volume		1,391	1,443					
Outer Lanes Speed		61.8	61.6					
Segment Speed		59.4	59.3					
v/c ratio		0.52	0.57					
Density		23.3	24.0					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

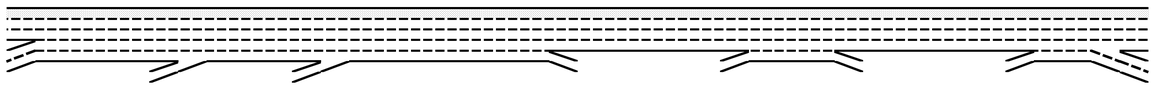
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				5,818				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.589				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,850				
v_3 (pcph)								
v_{34} (pcph)				2,968				
v_{12a} (pcph)				2,850				
Speed Index				0.35				
Area Speed				57.0				
Outer Lanes Volume				1,484				
Outer Lanes Speed				69.4				
Segment Speed				62.7				
v/c ratio				0.65				
Density				22.0				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

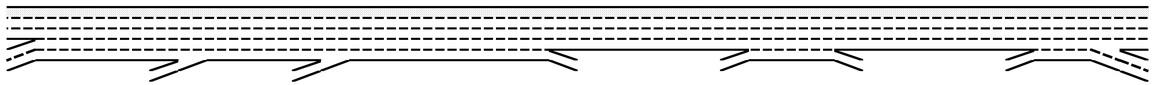
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8

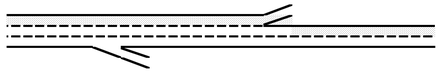


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.53	0.52	0.57	0.65	0.71		0.74	
Segment Density	19.0	23.3	24.0	22.0	26.3		27.3	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

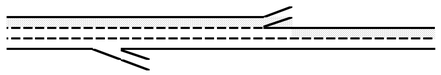


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	4,686	4,189	3,787
On Ramp Volume			
Off Ramp Volume	497	402	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	4,686	4,189	3,787
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	5,060	4,523	4,089
Flow (pcphpl)	1,687	1,508	2,045
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.72	0.63	0.85
Speed (mph)	63.8	68.9	61.7
Density (pcphpl)	26.4	21.9	33.1
LOS	D	C	D
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

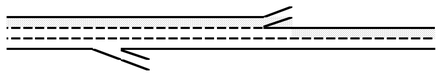


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	4,523	4,089	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.64	0.85	
Flow Rate (pcphpl)	1,508	2,045	
Speed (mph)	64.8	61.7	
Density (pcphpl)	23.3	33.1	
LOS	C	D	

Location	1	2	3

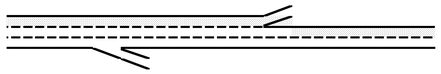


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

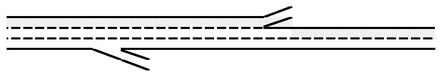


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	497	402	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	537	434	
Flow Rate (pcphpl)	537	434	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.26	0.22	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		537	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

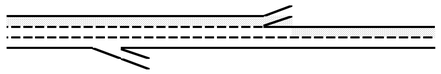


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	5,060		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.609		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.609		
v_{12} (pcph)	3,290		
v_3 (pcph)	1,769		
v_{34} (pcph)			
v_{12a} (pcph)	3,290		
Speed Index	0.35		
Area Speed	57.0		
Outer Lanes Volume	1,769		
Outer Lanes Speed	68.3		
Segment Speed	60.5		
v/c ratio	0.75		
Density	31.2		
LOS	D		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

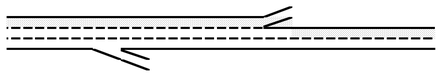


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

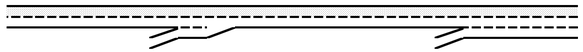
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.75	0.63	0.85
Segment Density	31.2	21.9	33.1
Segment LOS	D	C	D
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4



Key

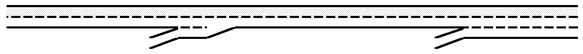
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,090	2,090	2,276	2,276
On Ramp Volume		186		315
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,090	2,090	2,276	2,276
PHF	0.97	0.97	0.97	0.97
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,187	2,187	2,382	2,382
Flow (pcphpl)	1,093	1,093	1,191	794
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.49	0.47	0.51	0.34
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	19.9	16.8	18.3	12.2
LOS	C	B	C	B
Operations for Segment GP Lanes				
Flow (pcph)		2,382		2,711
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.51		0.38
Flow Rate (pcphpl)		1,191		904
Speed (mph)		65.0		65.0
Density (pcphpl)		18.3		13.9
LOS		C		B

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

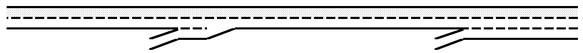


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4



Key

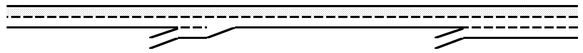
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		186		315
PHF		0.97		0.97
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		195		330
Flow Rate (pcphpl)		195		330
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.09		0.16

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline No Project Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

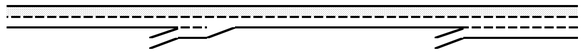


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,187		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,187		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,187		
v_{R12a} (pcph)		2,382		
Speed Index		0.30		
Area Speed		58.2		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.2		
v/c ratio		0.52		
Density		19.2		
LOS		B		

Location	1	2	3	4

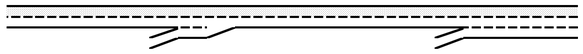


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

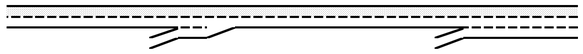


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

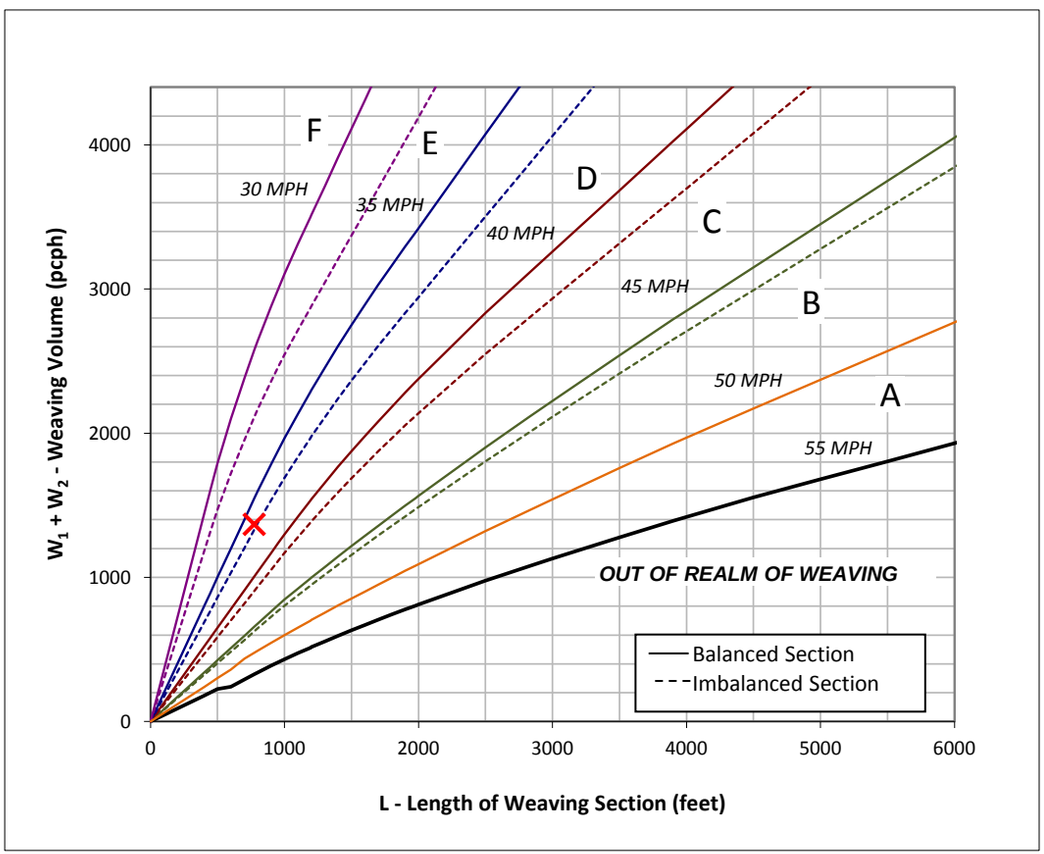
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.49	0.52	0.51	0.38
Segment Density	19.9	19.2	18.3	13.9
Segment LOS	C	B	C	B
Over Capacity				

Leisch Method for Weaving Analysis

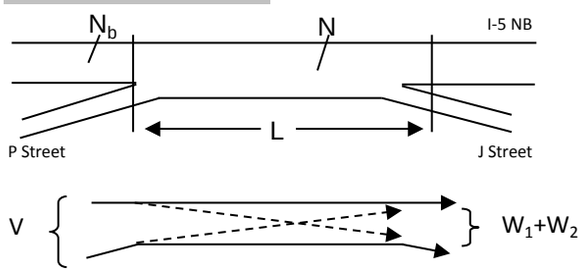
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,728	Volume (vph)*	1,070	Volume (vph)*	271
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,051	Volume (pcph)	1,091	Volume (pcph)	276



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	36.7
4. Weaving Intensity Factor (k)	2.73
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,506
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

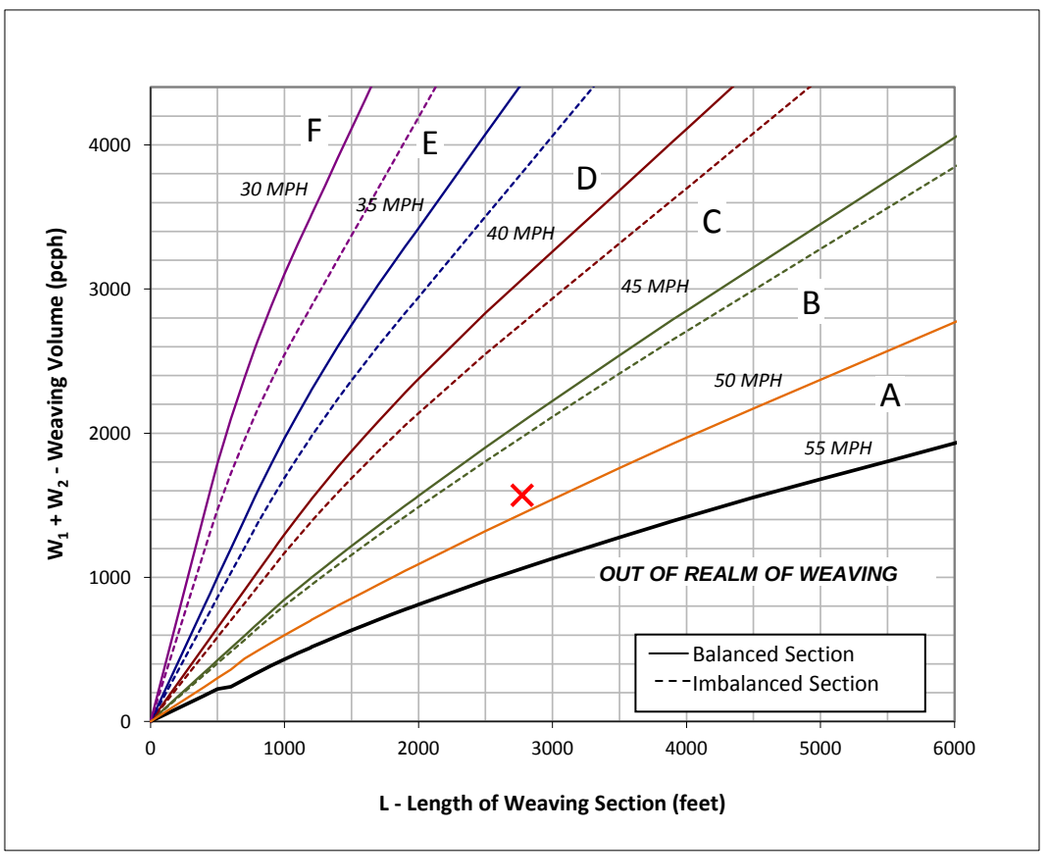
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

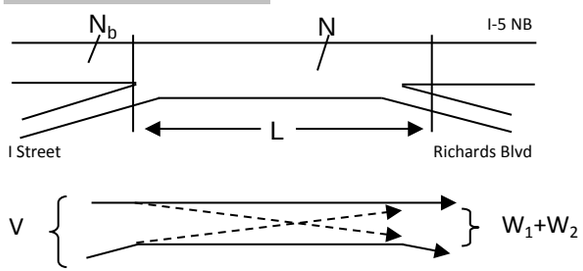
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,461	Volume (vph)*	1,037	Volume (vph)*	502
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,867	Volume (pcph)	1,058	Volume (pcph)	512



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **48.8**
4. Weaving Intensity Factor (k) **1.12**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,786**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

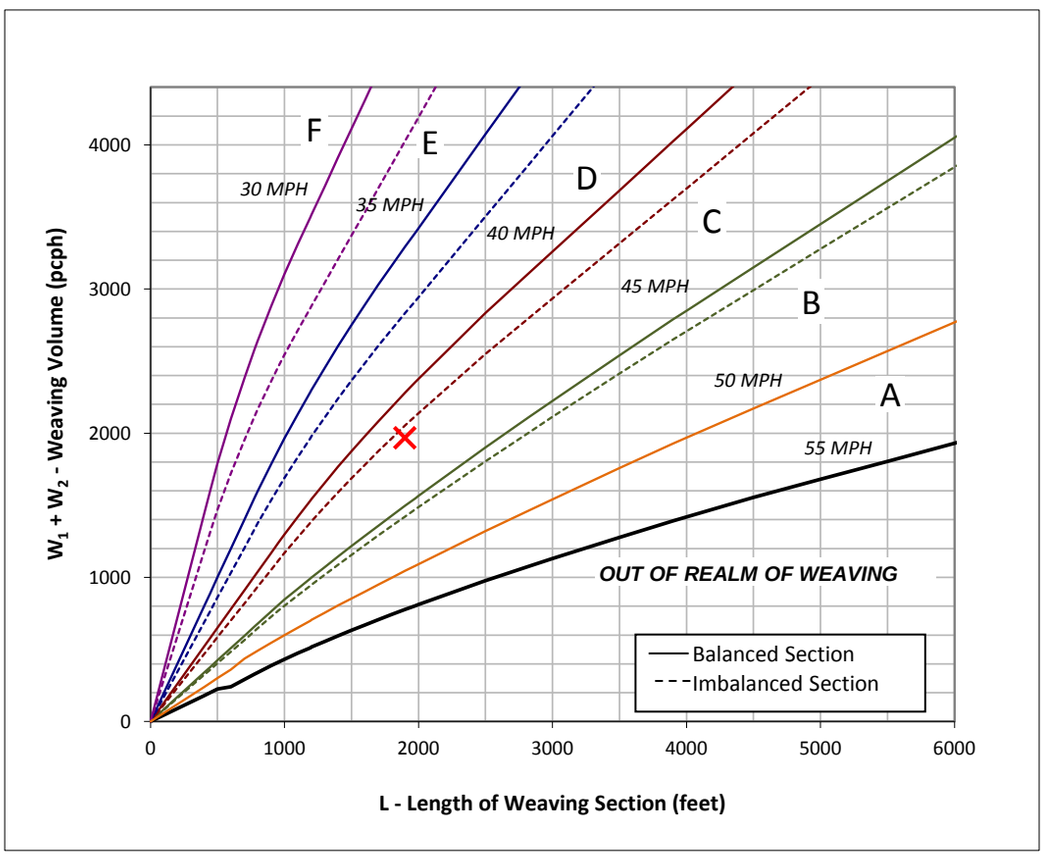
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

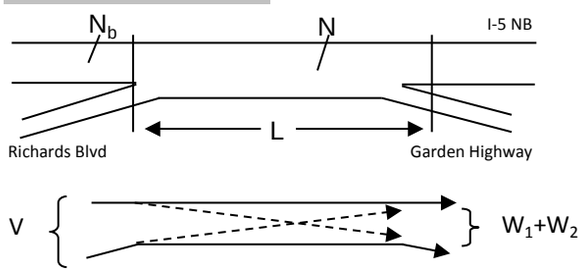
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,205	Volume (vph)*	1,184	Volume (vph)*	746
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,647	Volume (pcph)	1,208	Volume (pcph)	761



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	40.7
4. Weaving Intensity Factor (k)	2.47
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,153
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

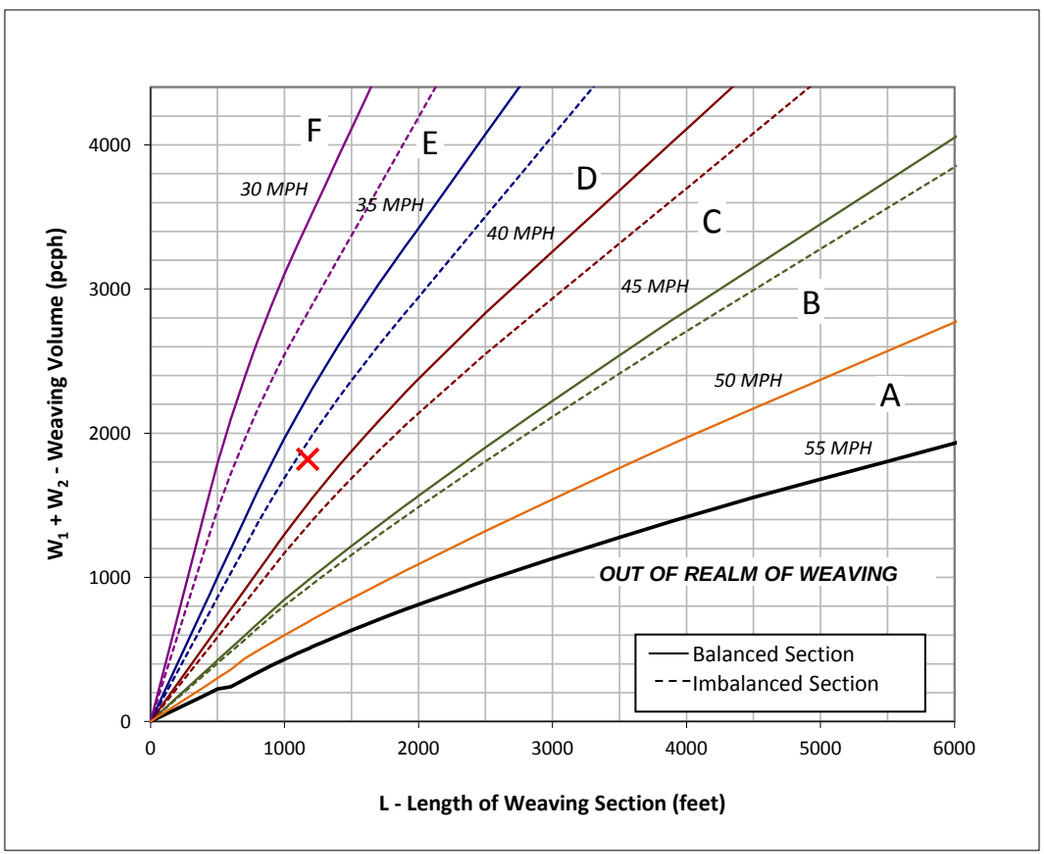
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,158	Volume (vph)*	750	Volume (vph)*	1,033
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,598	Volume (pcph)	765	Volume (pcph)	1,054



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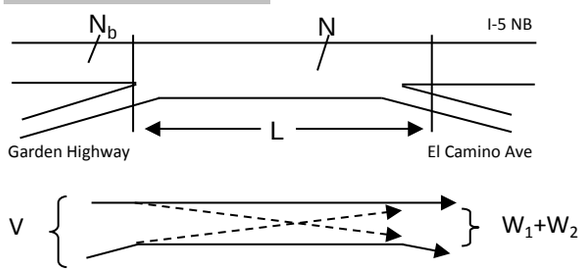


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.9
4. Weaving Intensity Factor (k)	2.65
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,172
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

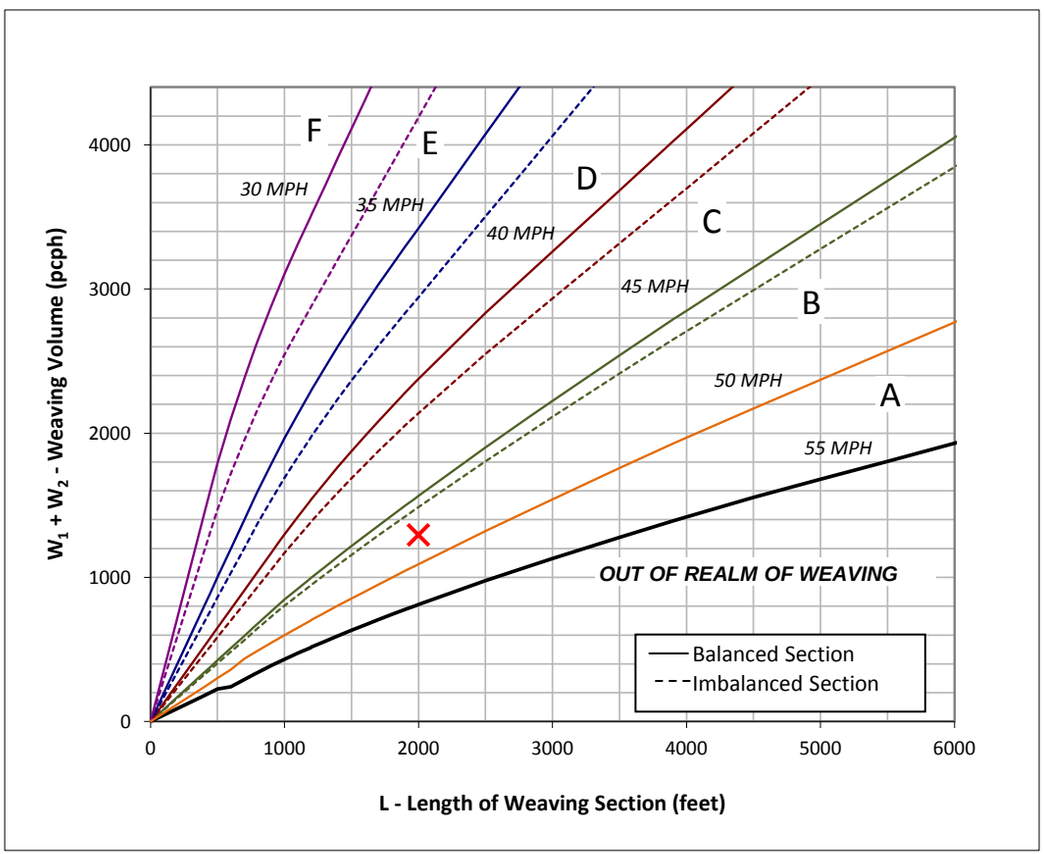
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,996	Volume (vph)*	747	Volume (vph)*	521
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,332	Volume (pcph)	762	Volume (pcph)	531



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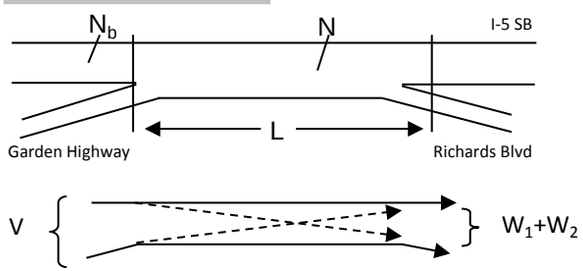


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **47.5**
4. Weaving Intensity Factor (k) **1.32**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,501**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

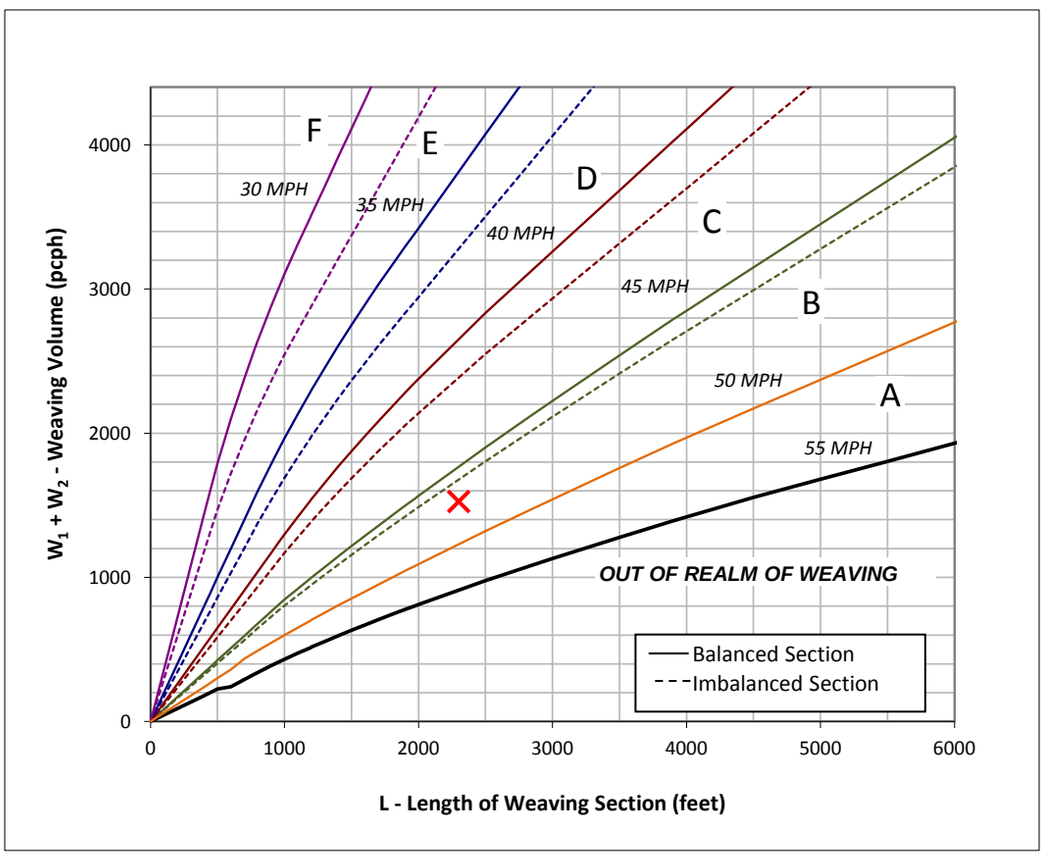
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,127	Volume (vph)*	757	Volume (vph)*	739
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,469	Volume (pcph)	772	Volume (pcph)	754



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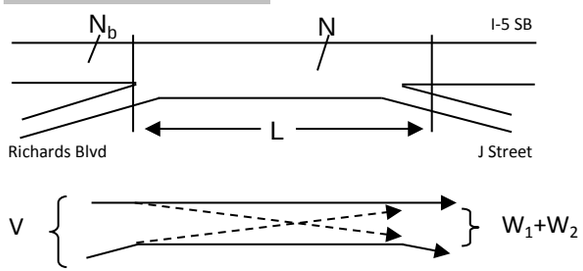


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	47.2
4. Weaving Intensity Factor (k)	1.38
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,551
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	200	193	96.4%	31.7	3.7	C
	Through	3	3	93.3%	19.2	27.2	B
	Right Turn	175	160	91.7%	5.6	0.7	A
	Subtotal	378	356	94.2%	19.9	2.3	B
EB	Left Turn						
	Through	304	294	96.8%	25.8	3.0	C
	Right Turn	48	41	85.8%	2.7	1.1	A
	Subtotal	352	336	95.3%	22.9	2.8	C
WB	Left Turn	270	266	98.7%	6.4	1.8	A
	Through	166	155	93.3%	2.7	0.9	A
	Right Turn						
	Subtotal	436	421	96.6%	5.0	1.5	A
Total		1,166	1,113	95.4%	15.2	1.4	B

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	54	79.4%	33.7	5.9	C
	Through	1	2	240.0%	11.8	15.0	B
	Right Turn	238	232	97.6%	6.3	0.7	A
	Subtotal	307	289	94.1%	11.6	1.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	161	140	86.7%	47.4	5.4	D
	Through	343	350	102.2%	1.7	0.4	A
	Right Turn						
	Subtotal	504	490	97.2%	14.7	1.8	B
WB	Left Turn						
	Through	368	364	98.8%	5.9	2.1	A
	Right Turn	321	317	98.7%	3.0	0.3	A
	Subtotal	689	680	98.8%	4.5	1.1	A
Total		1,500	1,459	97.3%	9.4	0.7	A

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	60	102.8%	29.9	5.7	C
	Through	5	4	72.0%	26.2	32.7	C
	Right Turn	2	2	80.0%	1.6	1.9	A
	Subtotal	65	65	99.7%	30.2	4.7	C
SB	Left Turn	23	25	107.8%	37.9	11.4	D
	Through	3	3	106.7%	18.4	25.0	B
	Right Turn	70	68	97.7%	5.8	1.7	A
	Subtotal	96	96	100.4%	14.6	4.1	B
EB	Left Turn	67	56	83.0%	38.2	7.3	D
	Through	469	468	99.9%	6.7	1.4	A
	Right Turn	45	52	114.7%	2.1	0.1	A
	Subtotal	581	576	99.1%	9.2	1.2	A
WB	Left Turn	15	13	85.3%	36.9	19.4	D
	Through	561	558	99.5%	10.7	1.2	B
	Right Turn	16	16	100.0%	6.5	4.9	A
	Subtotal	592	587	99.1%	11.1	1.3	B
Total		1,334	1,324	99.2%	11.5	1.1	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	12	89.2%	42.9	16.0	D
	Through	5	4	88.0%	26.9	24.8	C
	Right Turn	5	7	136.0%	7.6	6.3	A
	Subtotal	23	23	99.1%	31.6	6.6	C
SB	Left Turn	2	2	80.0%	15.8	26.3	B
	Through	5	7	144.0%	42.0	30.7	D
	Right Turn	11	7	65.5%	4.5	5.4	A
	Subtotal	18	16	88.9%	30.8	21.3	C
EB	Left Turn	11	12	109.1%	44.4	13.9	D
	Through	477	482	101.0%	1.9	0.9	A
	Right Turn	6	5	80.0%	0.8	1.8	A
	Subtotal	494	498	100.9%	2.9	1.2	A
WB	Left Turn	5	3	64.0%	18.9	24.1	B
	Through	568	568	100.0%	3.0	1.4	A
	Right Turn	2	3	160.0%	0.5	0.9	A
	Subtotal	575	574	99.9%	3.1	1.5	A
Total		1,110	1,112	100.1%	3.9	1.4	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	25	23	92.8%	34.5	8.1	C
	Through	4	5	120.0%	19.1	26.5	B
	Right Turn	22	24	110.9%	7.1	2.5	A
	Subtotal	51	52	102.7%	21.3	6.0	C
SB	Left Turn	10	6	56.0%	34.6	28.6	C
	Through	10	10	100.0%	38.3	26.2	D
	Right Turn	9	9	102.2%	9.0	8.8	A
	Subtotal	29	25	85.5%	28.8	15.1	C
EB	Left Turn	6	5	86.7%	30.0	24.5	C
	Through	473	468	99.0%	2.5	0.8	A
	Right Turn	5	5	104.0%	1.3	1.1	A
	Subtotal	484	479	98.9%	2.9	0.7	A
WB	Left Turn	3	2	66.7%	19.9	27.6	B
	Through	541	546	100.9%	2.9	0.7	A
	Right Turn	5	9	184.0%	3.6	4.4	A
	Subtotal	549	557	101.5%	3.1	0.8	A
Total		1,113	1,113	100.0%	4.4	0.8	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	40.0%	2.8	8.9	A
	Through	5	5	96.0%	19.9	22.9	B
	Right Turn	4	4	110.0%	3.4	2.7	A
	Subtotal	10	10	96.0%	15.8	14.0	B
SB	Left Turn	6	8	126.7%	27.2	17.6	C
	Through	5	4	80.0%	13.5	14.6	B
	Right Turn	8	8	105.0%	5.2	1.8	A
	Subtotal	19	20	105.3%	21.4	7.4	C
EB	Left Turn	10	12	116.0%	39.9	20.6	D
	Through	492	476	96.8%	4.4	1.7	A
	Right Turn	3	4	120.0%	2.2	3.1	A
	Subtotal	505	492	97.3%	5.2	1.7	A
WB	Left Turn	3	2	80.0%	18.7	26.3	B
	Through	540	549	101.6%	4.8	1.0	A
	Right Turn	2	4	200.0%	7.2	8.6	A
	Subtotal	545	555	101.9%	4.9	1.0	A
Total		1,079	1,076	99.8%	5.5	1.3	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	34	100.0%	27.9	7.6	C
	Through	53	53	100.4%	27.1	7.8	C
	Right Turn	70	74	106.3%	15.8	7.2	B
	Subtotal	157	162	102.9%	22.2	6.6	C
SB	Left Turn	7	4	62.9%	17.1	16.8	B
	Through	26	30	113.8%	22.8	6.8	C
	Right Turn	11	11	101.8%	24.4	13.3	C
	Subtotal	44	45	102.7%	23.6	7.9	C
EB	Left Turn	4	4	110.0%	29.1	33.8	C
	Through	468	455	97.3%	11.5	3.9	B
	Right Turn	30	34	112.0%	9.9	6.7	A
	Subtotal	502	493	98.2%	11.6	4.1	B
WB	Left Turn	27	28	105.2%	28.4	9.7	C
	Through	502	510	101.7%	10.7	3.5	B
	Right Turn	9	10	111.1%	3.8	2.3	A
	Subtotal	538	549	102.0%	11.5	3.7	B
Total		1,241	1,249	100.6%	13.4	3.8	B

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	21	115.6%	39.7	17.0	D
	Through	1	1	120.0%	3.3	9.8	A
	Right Turn	6	4	66.7%	2.5	4.5	A
	Subtotal	25	26	104.0%	36.5	15.7	D
SB	Left Turn	7	7	102.9%	22.3	16.1	C
	Through	3	4	120.0%	28.8	28.7	C
	Right Turn	20	23	116.0%	5.1	2.8	A
	Subtotal	30	34	113.3%	12.8	5.4	B
EB	Left Turn	14	13	91.4%	36.7	18.7	D
	Through	521	514	98.7%	5.0	1.6	A
	Right Turn	10	12	116.0%	4.0	0.9	A
	Subtotal	545	539	98.9%	5.7	1.4	A
WB	Left Turn	13	14	110.8%	33.7	10.9	C
	Through	400	397	99.2%	3.3	0.8	A
	Right Turn	12	12	103.3%	3.1	3.0	A
	Subtotal	425	424	99.7%	4.3	0.9	A
Total		1,025	1,022	99.7%	6.0	0.8	A

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	0.0%	0.5	0.3	A
	Through	5	8	152.0%	27.0	23.3	C
	Right Turn	9	7	80.0%	5.4	6.4	A
	Subtotal	15	15	98.7%	18.8	14.2	B
SB	Left Turn	21	20	93.3%	36.0	10.2	D
	Through	5	4	72.0%	19.2	27.4	B
	Right Turn	16	16	102.5%	7.5	4.0	A
	Subtotal	42	40	94.3%	24.9	6.5	C
EB	Left Turn	4	5	120.0%	25.7	21.0	C
	Through	511	501	98.0%	3.9	1.4	A
	Right Turn	19	15	77.9%	1.9	1.0	A
	Subtotal	534	520	97.5%	4.1	1.4	A
WB	Left Turn	11	12	112.7%	50.7	20.8	D
	Through	408	413	101.3%	4.6	0.6	A
	Right Turn	2	2	100.0%	2.5	0.1	A
	Subtotal	421	428	101.6%	6.0	1.1	A
Total		1,012	1,002	99.1%	6.0	1.1	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	53	104.3%	51.8	5.0	D
	Through	1,194	1,194	100.0%	6.5	0.7	A
	Right Turn	2	0	20.0%	0.2	0.5	A
	Subtotal	1,247	1,247	100.0%	8.4	0.7	A
SB	Left Turn						
	Through	777	782	100.6%	8.6	0.9	A
	Right Turn	404	416	102.9%	2.8	0.3	A
	Subtotal	1,181	1,197	101.4%	6.6	0.6	A
EB	Left Turn	533	513	96.2%	39.9	3.9	D
	Through						
	Right Turn	23	18	80.0%	3.5	0.4	A
	Subtotal	556	531	95.5%	38.7	3.3	D
WB	Left Turn						
	Through	2	2	120.0%	39.9	38.6	D
	Right Turn						
	Subtotal	2	2	120.0%	39.9	38.6	D
Total		2,986	2,978	99.7%	13.2	1.2	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	7	7	102.9%	3.4	2.4	A
	Right Turn						
	Subtotal	7	7	102.9%	3.4	2.4	A
SB	Left Turn	47	47	99.6%	4.0	0.4	A
	Through	7	12	177.1%	4.0	0.5	A
	Right Turn						
	Subtotal	54	59	109.6%	4.0	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	2	100.0%	1.7	2.2	A
	Through						
	Right Turn	37	37	100.5%	2.9	0.4	A
	Subtotal	39	39	100.5%	3.0	0.4	A
Total		100	106	105.6%	3.6	0.5	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	30	95.5%	4.5	0.9	A
	Through	41	44	106.3%	5.7	0.7	A
	Right Turn						
	Subtotal	72	73	101.7%	5.3	0.6	A
SB	Left Turn						
	Through	10	7	72.0%	5.0	3.4	A
	Right Turn	8	8	105.0%	3.4	1.7	A
	Subtotal	18	16	86.7%	4.3	1.9	A
EB	Left Turn	10	12	120.0%	4.4	0.7	A
	Through						
	Right Turn	37	34	90.8%	2.6	0.5	A
	Subtotal	47	46	97.0%	3.1	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		137	134	98.1%	4.5	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	25	77.5%	10.4	4.6	B
	Through	140	146	104.0%	11.4	3.0	B
	Right Turn	28	30	108.6%	10.1	4.9	B
	Subtotal	200	201	100.4%	11.3	3.0	B
SB	Left Turn	21	24	116.2%	14.8	3.0	B
	Through	64	75	117.5%	13.8	3.4	B
	Right Turn						
	Subtotal	85	100	117.2%	14.0	2.8	B
EB	Left Turn	5	3	56.0%	6.1	9.2	A
	Through	46	46	99.1%	14.0	1.5	B
	Right Turn	11	16	141.8%	3.8	1.4	A
	Subtotal	62	64	103.2%	11.4	1.4	B
WB	Left Turn	90	93	103.1%	12.9	4.2	B
	Through	14	8	54.3%	12.0	9.1	B
	Right Turn	10	9	88.0%	7.9	7.6	A
	Subtotal	114	109	95.8%	12.5	3.6	B
Total		461	474	102.7%	12.1	2.0	B

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	18	17	93.3%	33.3	18.9	C
	Through	62	56	89.7%	38.6	8.2	D
	Right Turn	7	6	80.0%	40.8	25.0	D
	Subtotal	87	78	89.7%	38.8	6.2	D
SB	Left Turn	3	3	93.3%	28.2	35.1	C
	Through	18	15	82.2%	37.9	19.2	D
	Right Turn	5	4	72.0%	12.4	14.2	B
	Subtotal	26	21	81.5%	36.3	18.9	D
EB	Left Turn						
	Through	71	74	104.2%	35.2	6.1	D
	Right Turn	19	18	94.7%	10.5	4.8	B
	Subtotal	90	92	102.2%	30.2	5.1	C
SW	Left Turn	23	20	88.7%	4.3	3.4	A
	Through	706	702	99.4%	6.1	2.1	A
	Right Turn	47	51	108.1%	6.1	3.5	A
	Subtotal	776	773	99.6%	6.1	2.2	A
Total		979	964	98.5%	11.7	1.9	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	49	37	75.9%	6.7	2.0	A
	Through	970	968	99.8%	5.3	0.6	A
	Right Turn	2	2	100.0%	2.1	4.7	A
	Subtotal	1,021	1,007	98.6%	5.4	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	41	37	89.8%	14.7	3.8	B
	Through	2	3	160.0%	12.0	14.1	B
	Right Turn						
	Subtotal	43	40	93.0%	14.8	3.9	B
WB	Left Turn						
	Through	1	0	0.0%	0.0	0.0	A
	Right Turn	3	6	186.7%	1.6	1.8	A
	Subtotal	4	6	140.0%	1.6	1.8	A
Total		1,068	1,052	98.5%	5.7	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	12	103.3%	6.0	4.3	A
	Through	5	5	104.0%	7.1	11.3	A
	Right Turn						
	Subtotal	17	18	103.5%	6.8	4.7	A
SB	Left Turn						
	Through	7	8	120.0%	9.4	5.9	A
	Right Turn	9	12	128.9%	4.1	2.5	A
	Subtotal	16	20	125.0%	6.6	3.5	A
EB	Left Turn						
	Through	4	5	120.0%	4.0	4.8	A
	Right Turn						
	Subtotal	4	5	120.0%	4.0	4.8	A
WB	Left Turn	20	18	88.0%	1.8	1.5	A
	Through	778	778	100.1%	2.2	1.1	A
	Right Turn	2	4	200.0%	1.4	1.2	A
	Subtotal	800	800	100.0%	2.2	1.0	A
Total		837	842	100.6%	2.5	1.0	A

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	7	90.0%	12.5	10.5	B
	Through						
	Right Turn	7	9	125.7%	1.5	1.8	A
	Subtotal	15	16	106.7%	6.4	4.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	141	138	98.2%	8.2	2.0	A
	Right Turn	7	7	97.1%	2.4	1.7	A
	Subtotal	148	145	98.1%	7.9	1.9	A
WB	Left Turn	13	15	113.8%	23.0	10.6	C
	Through	128	143	111.6%	2.6	0.9	A
	Right Turn						
	Subtotal	141	158	111.8%	4.7	1.5	A
Total		304	319	104.9%	6.3	1.2	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	6	100.0%	7.2	8.0	A
	Through						
	Right Turn	47	48	103.0%	2.4	0.8	A
	Subtotal	53	54	102.6%	3.1	1.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	142	145	102.0%	8.9	2.1	A
	Right Turn	6	3	53.3%	2.3	5.1	A
	Subtotal	148	148	100.0%	8.8	2.1	A
WB	Left Turn	34	34	98.8%	30.7	4.3	C
	Through	135	151	111.7%	7.3	1.9	A
	Right Turn						
	Subtotal	169	184	109.1%	11.6	1.8	B
Total		370	387	104.5%	9.3	1.3	A

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	19	87.3%	25.7	17.7	C
	Through	42	44	104.8%	23.4	7.5	C
	Right Turn						
	Subtotal	64	63	98.8%	24.7	10.3	C
SB	Left Turn						
	Through	18	15	82.2%	11.4	5.9	B
	Right Turn	147	166	112.9%	4.4	1.2	A
	Subtotal	165	181	109.6%	4.9	1.5	A
EB	Left Turn	158	158	99.7%	11.1	3.0	B
	Through						
	Right Turn	31	35	112.3%	2.7	0.8	A
	Subtotal	189	192	101.8%	9.6	2.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		418	436	104.4%	9.9	2.0	A

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	15	16	106.7%	0.0	0.0	A
	Right Turn						
	Subtotal	15	16	106.7%	0.0	0.0	A
SB	Left Turn						
	Through	20	22	110.0%	0.8	0.2	A
	Right Turn						
	Subtotal	20	22	110.0%	0.8	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		35	38	108.6%	0.4	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	53	55	103.4%	0.0	0.0	A
	Subtotal	53	55	103.4%	0.0	0.0	A
SB	Left Turn Through Right Turn	40	37	92.0%	0.9	0.1	A
	Subtotal	40	37	92.0%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		93	92	98.5%	0.4	0.0	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	15	16	106.7%	0.0	0.0	A
	Subtotal	15	16	106.7%	0.0	0.0	A
SB	Left Turn Through Right Turn	20	20	100.0%	0.0	0.1	A
	Subtotal	20	20	100.0%	0.0	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		35	36	102.9%	0.0	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	53	54	102.6%	0.0	0.1	A
	Subtotal	53	54	102.6%	0.0	0.1	A
SB	Left Turn Through Right Turn	40	37	93.0%	0.1	0.1	A
	Subtotal	40	37	93.0%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		93	92	98.5%	0.1	0.1	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	4.1	3.7	A
	Through	42	39	93.3%	2.8	1.3	A
	Right Turn	1	1	120.0%	1.4	1.4	A
	Subtotal	48	44	91.7%	3.2	1.5	A
SB	Left Turn	20	16	78.0%	8.7	3.2	A
	Through	22	25	112.7%	1.8	1.9	A
	Right Turn	7	12	171.4%	1.0	1.4	A
	Subtotal	49	52	106.9%	3.7	1.6	A
EB	Left Turn	7	5	74.3%	4.1	4.2	A
	Through	1	2	160.0%	1.4	2.8	A
	Right Turn	2	4	220.0%	2.2	1.8	A
	Subtotal	10	11	112.0%	3.9	2.2	A
WB	Left Turn	32	34	105.0%	6.3	2.5	A
	Through	2	2	80.0%	2.7	2.8	A
	Right Turn	15	17	114.7%	3.1	0.9	A
	Subtotal	49	52	106.9%	5.3	1.7	A
Total		156	160	102.6%	4.1	1.1	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	120.0%	5.8	4.0	A
	Through	42	42	101.0%	5.1	0.4	A
	Right Turn	24	26	108.3%	3.1	0.3	A
	Subtotal	71	74	104.8%	4.5	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	15	13	88.0%	4.7	0.5	A
	Through	11	12	105.5%	5.3	0.6	A
	Right Turn						
	Subtotal	26	25	95.4%	5.0	0.4	A
WB	Left Turn						
	Through	54	58	107.4%	4.8	0.4	A
	Right Turn	3	6	186.7%	3.5	2.7	A
	Subtotal	57	64	111.6%	4.7	0.2	A
Total		154	163	105.7%	4.6	0.3	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	5	4	88.0%	3.4	4.7	A
	Right Turn						
	Subtotal	5	4	88.0%	3.4	4.7	A
SB	Left Turn						
	Through	89	92	103.8%	14.8	1.7	B
	Right Turn	13	15	116.9%	6.4	1.7	A
	Subtotal	102	108	105.5%	13.6	2.0	B
EB	Left Turn	68	59	87.1%	20.4	6.2	C
	Through						
	Right Turn	5	4	80.0%	0.7	1.0	A
	Subtotal	73	63	86.6%	19.1	5.8	B
WB	Left Turn	5	6	120.0%	16.4	18.2	B
	Through	260	268	103.2%	6.4	1.0	A
	Right Turn	97	104	107.2%	3.4	0.7	A
	Subtotal	362	378	104.5%	5.7	0.8	A
Total		542	554	102.1%	8.7	0.7	A

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	13	110.0%	13.7	7.1	B
	Through	80	66	83.0%	4.7	1.7	A
	Right Turn	101	105	103.8%	2.4	0.6	A
	Subtotal	193	184	95.5%	4.0	1.1	A
SB	Left Turn	5	6	120.0%	15.9	11.5	B
	Through	265	288	108.5%	13.2	2.0	B
	Right Turn						
	Subtotal	270	294	108.7%	13.3	2.0	B
EB	Left Turn	5	2	32.0%	4.8	7.9	A
	Through	15	16	106.7%	9.1	5.2	A
	Right Turn	5	3	64.0%	2.5	2.9	A
	Subtotal	25	21	83.2%	8.9	5.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		488	499	102.2%	9.7	1.0	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	38	44	116.8%	19.2	2.7	B
	Right Turn	30	29	96.0%	4.3	1.2	A
	Subtotal	68	73	107.6%	13.4	2.7	B
SB	Left Turn	5	4	88.0%	10.7	11.7	B
	Through	49	44	89.0%	10.3	4.1	B
	Right Turn						
	Subtotal	54	48	88.9%	10.5	3.3	B
EB	Left Turn	5	6	112.0%	9.0	9.7	A
	Through	100	106	105.6%	7.7	1.2	A
	Right Turn	16	14	87.5%	4.6	2.9	A
	Subtotal	121	125	103.5%	7.5	1.0	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		243	246	101.4%	9.8	1.3	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	28	30	108.6%	6.6	2.7	A
	Through	72	75	103.9%	5.0	2.3	A
	Right Turn						
	Subtotal	100	105	105.2%	5.5	1.9	A
EB	Left Turn	5	4	88.0%	8.2	9.8	A
	Through	102	110	107.8%	6.8	1.4	A
	Right Turn	28	23	81.4%	4.7	3.0	A
	Subtotal	135	137	101.6%	6.5	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		235	242	103.1%	6.0	1.2	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	95	90	95.2%	5.4	0.8	A
	Right Turn	41	42	103.4%	4.7	2.1	A
	Subtotal	136	133	97.6%	5.0	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	16	19	117.5%	3.1	0.7	A
	Through	120	125	104.3%	5.5	1.6	A
	Right Turn						
	Subtotal	136	144	105.9%	5.2	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		272	277	101.8%	5.1	0.8	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	15	12	77.3%	18.1	9.4	B
	Through						
	Right Turn	334	328	98.3%	18.0	2.2	B
	Subtotal	349	340	97.4%	18.1	2.2	B
EB	Left Turn	315	311	98.7%	22.6	3.7	C
	Through	64	65	101.3%	14.8	3.3	B
	Right Turn						
	Subtotal	379	376	99.1%	21.3	3.5	C
WB	Left Turn						
	Through	79	72	90.6%	16.2	6.7	B
	Right Turn	37	38	102.7%	3.7	2.1	A
	Subtotal	116	110	94.5%	12.0	4.7	B
Total		844	825	97.8%	18.6	1.9	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	223	207	92.9%	17.9	4.0	B
	Through	124	118	95.5%	7.8	2.4	A
	Right Turn						
	Subtotal	347	326	93.8%	14.2	2.1	B
SB	Left Turn						
	Through						
	Right Turn	408	416	102.0%	16.8	3.4	B
	Subtotal	408	416	102.0%	16.8	3.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	955	912	95.5%	4.8	0.4	A
	Right Turn	42	37	88.6%	3.8	0.6	A
	Subtotal	997	950	95.2%	4.8	0.4	A
Total		1,752	1,691	96.5%	9.6	1.2	A

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	19	16	86.3%	19.5	8.6	B
	Through	40	49	123.0%	15.7	3.9	B
	Right Turn						
	Subtotal	59	66	111.2%	16.7	4.6	B
SB	Left Turn						
	Through	5	6	112.0%	10.5	13.6	B
	Right Turn	60	52	86.0%	4.6	1.4	A
	Subtotal	65	57	88.0%	5.3	1.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	7	90.0%	3.5	1.1	A
	Through	918	886	96.5%	3.6	0.5	A
	Right Turn	28	24	85.7%	3.8	2.0	A
	Subtotal	954	917	96.1%	3.6	0.6	A
Total		1,078	1,040	96.4%	4.5	0.5	A

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	95	91	95.6%	9.4	3.6	A
	Right Turn	5	6	112.0%	4.6	5.4	A
	Subtotal	100	96	96.4%	9.1	3.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	31	36	117.4%	8.7	6.9	A
	Through	949	922	97.2%	7.7	2.2	A
	Right Turn						
	Subtotal	980	959	97.8%	7.8	2.3	A
Total		1,080	1,055	97.7%	7.9	2.1	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	145	132	90.8%	6.9	1.0	A
	Through	124	120	96.5%	7.2	1.6	A
	Right Turn						
	Subtotal	269	251	93.4%	7.1	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	834	826	99.0%	9.4	0.6	A
	Right Turn	12	11	93.3%	4.7	3.5	A
	Subtotal	846	837	98.9%	9.3	0.6	A
Total		1,115	1,088	97.6%	8.8	0.6	A

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	7	136.0%	28.9	21.4	C
	Through	200	202	101.0%	31.8	2.7	C
	Right Turn	20	18	88.0%	10.2	6.8	B
	Subtotal	225	226	100.6%	30.3	2.8	C
SB	Left Turn	185	175	94.5%	30.1	4.6	C
	Through	181	175	96.6%	29.9	4.0	C
	Right Turn						
	Subtotal	366	350	95.5%	29.9	3.5	C
EB	Left Turn	5	6	128.0%	16.5	13.5	B
	Through	425	426	100.1%	16.3	2.2	B
	Right Turn	100	101	100.8%	15.0	2.7	B
	Subtotal	530	533	100.5%	16.1	2.1	B
NB	Left Turn						
	Through						
	Right Turn	68	84	122.9%	3.3	0.6	A
	Subtotal	68	84	122.9%	3.3	0.6	A
Total		1,189	1,192	100.3%	21.9	1.7	C

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	104	91	87.7%	8.5	1.7	A
	Right Turn	96	90	93.3%	4.6	0.9	A
	Subtotal	200	181	90.4%	6.5	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	243	235	96.6%	8.4	1.1	A
	Through	613	626	102.2%	9.6	0.6	A
	Right Turn	31	28	89.0%	6.8	4.2	A
	Subtotal	887	889	100.2%	9.2	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,087	1,070	98.4%	8.8	0.5	A

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	33	32	95.8%	8.7	2.4	A
	Through	93	96	103.2%	12.1	1.9	B
	Right Turn						
	Subtotal	126	128	101.3%	11.2	1.9	B
EB	Left Turn						
	Through	610	611	100.1%	8.8	0.6	A
	Right Turn	107	114	106.5%	6.2	0.8	A
	Subtotal	717	725	101.1%	8.3	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		843	852	101.1%	8.8	0.6	A

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	70	109.4%	25.7	4.8	C
	Through	92	86	93.0%	14.7	5.2	B
	Right Turn	112	116	103.2%	3.4	0.8	A
	Subtotal	268	271	101.2%	12.8	1.6	B
SB	Left Turn	43	43	99.5%	26.2	5.4	C
	Through	54	52	97.0%	15.4	5.2	B
	Right Turn	11	10	90.9%	1.7	1.4	A
	Subtotal	108	105	97.4%	18.4	4.3	B
EB	Left Turn	7	7	97.1%	33.7	16.8	C
	Through	206	200	97.3%	20.1	3.5	C
	Right Turn	33	36	110.3%	8.2	5.8	A
	Subtotal	246	244	99.0%	18.8	3.4	B
WB	Left Turn	112	102	90.7%	27.6	3.4	C
	Through	224	211	94.1%	16.5	2.3	B
	Right Turn	65	65	99.7%	4.4	0.8	A
	Subtotal	401	377	94.1%	17.4	2.3	B
Total		1,023	997	97.5%	16.6	1.3	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	9	97.8%	23.4	9.5	C
	Through	4	4	110.0%	19.7	16.6	B
	Right Turn	28	23	82.9%	4.4	1.3	A
	Subtotal	41	36	88.8%	11.2	4.3	B
SB	Left Turn	8	6	70.0%	17.3	12.8	B
	Through						
	Right Turn	2	2	100.0%	3.0	3.6	A
	Subtotal	10	8	76.0%	16.6	11.2	B
EB	Left Turn	3	2	66.7%	9.6	15.8	A
	Through	343	352	102.7%	4.1	0.9	A
	Right Turn	15	11	72.0%	2.8	1.3	A
	Subtotal	361	365	101.2%	4.2	0.9	A
WB	Left Turn	16	15	95.0%	15.1	4.0	B
	Through	390	380	97.3%	4.5	0.8	A
	Right Turn	7	9	125.7%	2.9	1.6	A
	Subtotal	413	404	97.7%	4.9	0.8	A
Total		825	813	98.5%	5.0	0.6	A

Intersection 47 **Jibboom St/Railyards Blvd** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	253	240	94.7%	12.9	1.5	B
	Right Turn	99	95	96.2%	8.5	2.4	A
	Subtotal	352	335	95.1%	11.7	1.7	B
SB	Left Turn	49	44	89.8%	5.9	0.7	A
	Through	233	225	96.7%	8.2	0.2	A
	Right Turn						
	Subtotal	282	269	95.5%	7.8	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	116	120	103.1%	5.5	0.8	A
	Through						
	Right Turn	20	24	122.0%	2.1	0.9	A
	Subtotal	136	144	105.9%	5.0	0.7	A
Total		770	748	97.1%	9.1	0.8	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	10	8	76.0%	8.7	12.2	A
	Right Turn	75	58	77.3%	3.8	1.4	A
	Subtotal	85	66	77.2%	4.4	2.3	A
SB	Left Turn	7	5	68.6%	7.6	11.3	A
	Through	13	10	80.0%	8.2	7.0	A
	Right Turn						
	Subtotal	20	15	76.0%	9.9	7.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	257	286	111.3%	16.2	2.9	B
	Through						
	Right Turn	5	6	128.0%	1.7	1.0	A
	Subtotal	262	292	111.6%	15.9	3.0	B
Total		367	373	101.7%	13.6	2.2	B

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	7	136.0%	19.6	17.0	B
	Through	23	28	120.0%	22.1	5.4	C
	Right Turn	16	20	122.5%	5.2	3.3	A
	Subtotal	44	54	122.7%	17.0	5.4	B
SB	Left Turn	5	4	88.0%	23.4	25.1	C
	Through	8	9	110.0%	18.0	14.3	B
	Right Turn	27	30	109.6%	4.2	2.7	A
	Subtotal	40	43	107.0%	10.8	5.6	B
EB	Left Turn	25	22	86.4%	17.3	8.3	B
	Through	52	38	73.1%	7.0	3.8	A
	Right Turn	5	4	88.0%	1.3	1.7	A
	Subtotal	82	64	78.0%	9.7	2.8	A
WB	Left Turn	38	31	82.1%	10.3	3.2	B
	Through	230	253	109.9%	10.9	1.1	B
	Right Turn	5	7	144.0%	9.5	10.0	A
	Subtotal	273	291	106.7%	10.8	1.3	B
Total		439	452	103.0%	11.5	1.1	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	1	40.0%	7.2	12.7	A
	Through	187	177	94.5%	30.6	3.7	C
	Right Turn	43	46	107.0%	4.1	0.8	A
	Subtotal	233	224	96.1%	25.0	3.0	C
SB	Left Turn	37	38	102.7%	5.8	3.8	A
	Through	128	126	98.8%	16.2	3.9	B
	Right Turn	36	37	103.3%	4.3	2.5	A
	Subtotal	201	202	100.3%	12.0	2.4	B
EB	Left Turn	40	40	100.0%	41.9	5.2	D
	Through	132	140	105.8%	28.8	7.4	C
	Right Turn	17	15	87.1%	5.5	4.2	A
	Subtotal	189	194	102.9%	29.7	5.9	C
WB	Left Turn	50	49	98.4%	43.7	8.2	D
	Through	192	197	102.7%	34.1	7.9	C
	Right Turn	52	57	110.0%	5.3	1.5	A
	Subtotal	294	304	103.3%	30.2	5.1	C
Total		917	924	100.7%	24.9	2.4	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	6	106.7%	8.6	8.6	A
	Through	5	3	64.0%	14.4	16.6	B
	Right Turn	12	16	130.0%	2.8	0.8	A
	Subtotal	23	25	109.6%	8.6	4.4	A
SB	Left Turn	40	40	101.0%	16.5	5.2	B
	Through	11	13	116.4%	20.5	10.0	C
	Right Turn	11	13	120.0%	2.6	1.5	A
	Subtotal	62	66	107.1%	14.6	3.5	B
EB	Left Turn	9	9	97.8%	29.4	18.5	C
	Through	201	214	106.3%	11.4	3.6	B
	Right Turn	2	1	60.0%	0.6	1.3	A
	Subtotal	212	224	105.5%	11.9	3.8	B
WB	Left Turn	18	17	95.6%	24.2	12.3	C
	Through	277	285	102.8%	9.2	3.7	A
	Right Turn	30	33	110.7%	4.9	3.7	A
	Subtotal	325	335	103.1%	9.6	3.9	A
Total		622	650	104.6%	10.8	3.1	B

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	85	88	104.0%	3.6	0.9	A
	Through	671	698	104.0%	3.6	0.4	A
	Right Turn	5	4	88.0%	2.6	3.5	A
	Subtotal	761	791	103.9%	3.6	0.5	A
EB	Left Turn						
	Through	53	54	102.6%	20.5	4.9	C
	Right Turn	6	6	106.7%	3.2	1.8	A
	Subtotal	59	61	103.1%	18.5	4.7	B
WB	Left Turn	18	14	75.6%	23.1	8.8	C
	Through	19	18	96.8%	18.3	7.8	B
	Right Turn						
	Subtotal	37	32	86.5%	20.5	4.5	C
Total		857	884	103.1%	5.2	0.5	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	73	75	103.0%	6.4	1.7	A
	Through	605	618	102.2%	4.9	1.3	A
	Right Turn	17	22	129.4%	1.4	0.6	A
	Subtotal	695	716	103.0%	5.0	1.1	A
EB	Left Turn						
	Through	56	55	98.6%	17.6	5.0	B
	Right Turn	5	6	120.0%	4.3	4.3	A
	Subtotal	61	61	100.3%	16.7	5.1	B
WB	Left Turn	7	5	74.3%	12.6	14.7	B
	Through	23	19	83.5%	19.8	8.2	B
	Right Turn						
	Subtotal	30	24	81.3%	19.3	8.8	B
Total		786	801	101.9%	6.2	1.0	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	100	10	125	14	150	19	0%	0%
	Through/Right	2,725	50	11	100	14	100	19	0%	0%
SB	Left Turn	325	50	11	100	22	100	26	0%	0%
	Left/Through	1,500	100	10	125	18	125	17	0%	0%
	Right Turn	325	50	6	75	18	100	26	0%	0%
WB	Left Turn	1,275	50	13	100	25	100	28	0%	0%
	Through	275	25	8	75	21	75	29	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	20	175	27	175	26	0%	0%
	Through	325	25	4	25	18	25	25	0%	0%
NB	Left/Through	325	50	16	100	32	100	35	0%	0%
	Right Turn	1,175	50	8	100	18	100	25	0%	0%
WB	Through	225	50	16	100	31	125	39	0%	0%
0										

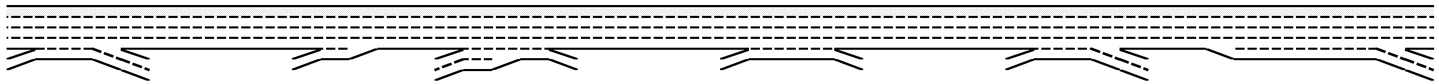
SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline No Project**
Queue Length **Pre-Event Peak Hour**
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	75	9	125	13	125	21	0%	0%
	Through	600	50	8	100	20	100	28	0%	0%
	Through/Right	600	75	19	125	28	125	27	0%	0%
NB	Right Turn	1,025	25	2	25	7	25	9	0%	0%
NE	Shared	975	50	15	100	34	125	45	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	25	11	75	21	75	24	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

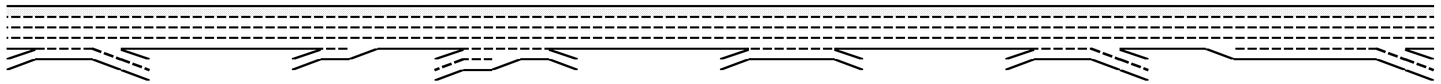
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	4,605	4,958	4,958	5,480	5,741	5,741	5,618	5,618	5,403	5,403
On Ramp Volume	578		522	568		483		570		
Off Ramp Volume	225			307		606		785		1,747
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	4,605	4,958	4,958	5,480	5,741	5,741	5,618	5,618	5,403	5,403
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,362	5,773	5,773	6,381	6,685	6,685	6,542	6,542	6,291	6,291
Flow (pcphpl)	1,341	1,443	1,443	1,595	1,671	1,671	1,635	1,635	1,573	1,258
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.57	0.61	0.61	0.68	0.71	0.71	0.70	0.70	0.67	0.54
Speed (mph)	65.0	65.0	65.0	64.5	64.0	64.0	64.2	64.2	64.6	65.0
Density (pcphpl)	20.6	22.2	22.2	24.7	26.1	26.1	25.5	25.5	24.4	19.4
LOS	C	C	C	C	D	D	C	C	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	6,044		6,389	7,022		7,314		7,207		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.51		0.68	0.60		0.62		0.61		
Flow Rate (pcphpl)	1,209		1,597	1,404		1,463		1,441		
Speed (mph)	65.0		64.4	65.0		64.9		65.0		
Density (pcphpl)	18.6		24.8	21.6		22.5		22.2		
LOS	C		C	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

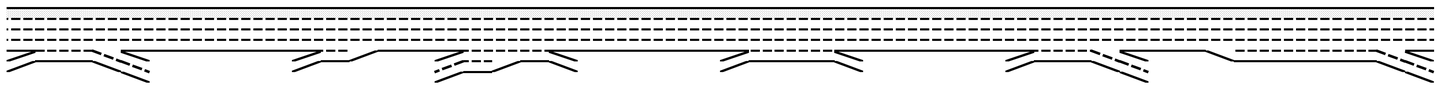
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	5,779			6,664		6,659		6,350		4,340
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.61			0.71		0.71		0.68		0.46
Flow Rate (pcphpl)	1,445			1,666		1,665		1,588		1,085
Speed (mph)	65.0			64.0		64.0		64.5		65.0
Density (pcphpl)	22.2			26.0		26.0		24.6		16.7
LOS	C			D		D		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

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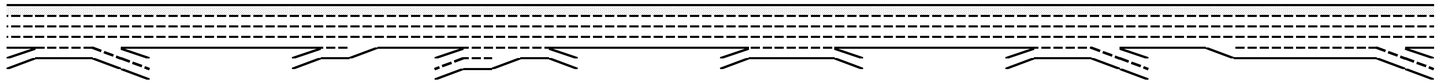
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	578		522	568		483		570		
PHF	0.86		0.86	0.9		0.78		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	682		616	641		629		665		
Flow Rate (pcphpl)	682		616	320		629		665		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.32		0.29	0.15		0.30		0.32		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

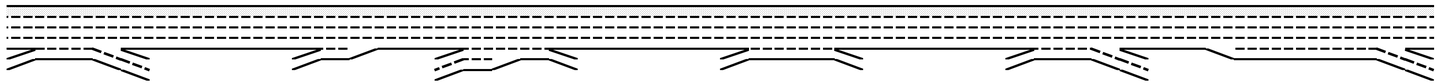
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	225			307		606		785		1,747
PHF	0.86			0.87		0.94		0.93		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	266			358		654		857		1,951
Flow Rate (pcphpl)	133			358		654		428		976
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.06			0.17		0.31		0.20		0.42
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			5,773							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.141							
v_{12} (pcph)			813							
v_3 (pcph)										
v_{3t} (pcph)			4,960							
v_{12a} (pcph)			2,309							
v_{R12a} (pcph)			2,925							
Speed Index			0.36							
Area Speed			56.8							
Outer Lanes Volume			1,732							
Outer Lanes Speed			60.6							
Segment Speed			58.8							
v/c ratio			0.64							
Density			25.3							
LOS			C							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

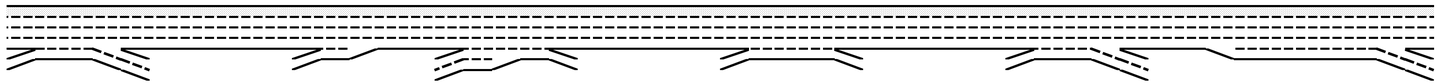
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										22.0
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

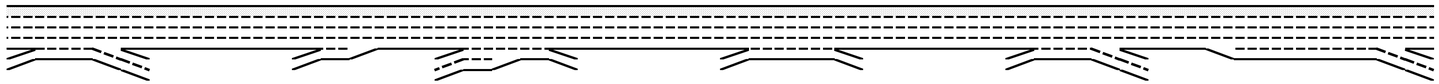
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

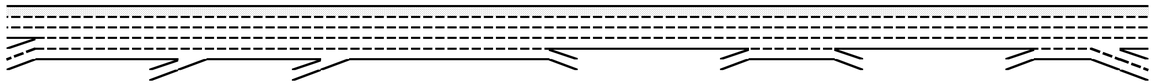
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.61	0.64		0.71		0.70		0.67	
Segment Density		22.2	25.3		26.1		25.5		24.4	22.0
Segment LOS		C	C		D		C		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

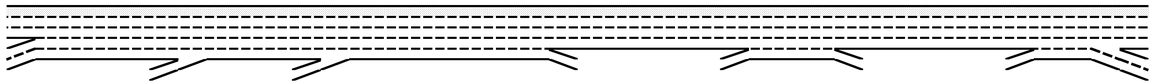
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	2,088	3,350	3,616	3,765	3,457	3,457	3,588	3,588
On Ramp Volume	1,262	266	149			509		321
Off Ramp Volume				308		378		451
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	2,088	3,350	3,616	3,765	3,457	3,457	3,588	3,588
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	2,431	3,901	4,211	4,384	4,025	4,025	4,178	4,178
Flow (pcphpl)	810	780	842	877	1,006	1,006	1,045	1,045
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.34	0.33	0.36	0.37	0.43	0.43	0.44	0.44
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	12.5	12.0	13.0	13.5	15.5	15.5	16.1	16.1
LOS	B	B	B	B	B	B	B	B
Calculate Operations for Segment GP Lanes								
Flow (pcph)	4,028	4,198	4,381			4,600		4,607
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.34	0.36	0.37			0.39		0.39
Flow Rate (pcphpl)	806	840	876			920		921
Speed (mph)	65.0	65.0	65.0			65.0		65.0
Density (pcphpl)	12.4	12.9	13.5			14.2		14.2
LOS	B	B	B			B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

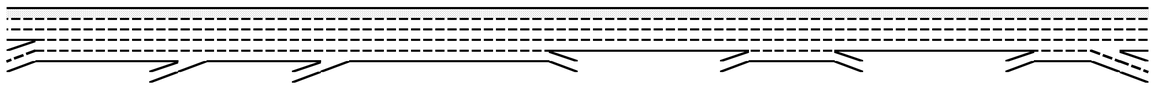
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				4,052		4,178		4,074
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.43		0.44		0.43
Flow Rate (pcphpl)				1,013		1,044		1,019
Speed (mph)				65.0		65.0		65.0
Density (pcphpl)				15.6		16.1		15.7
LOS				B		B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

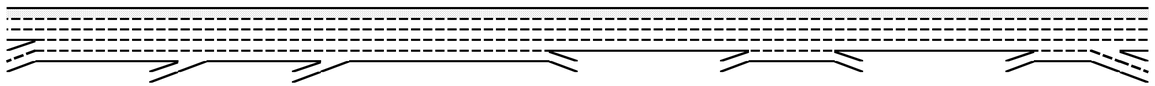
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	1,262	266	149			509		321
PHF	0.83	0.91	0.89			0.9		0.76
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	1,597	297	170			574		429
Flow Rate (pcphpl)	798	297	170			574		429
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.35	0.14	0.08			0.27		0.20

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

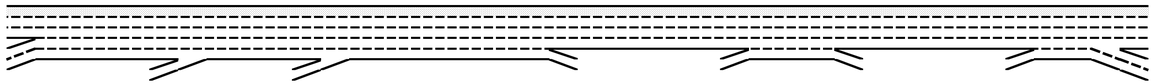
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				308		378		451
PHF				0.94		0.91		0.86
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				333		422		532
Flow Rate (pcphpl)				333		422		266
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.16		0.20		0.13
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		3,043	3,284					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.205	0.197					
v_{12} (pcph)		625	646					
v_3 (pcph)								
v_{34} (pcph)		2,417	2,639					
v_{12a} (pcph)		1,217	1,314					
v_{R12a} (pcph)		1,514	1,484					
Speed Index		0.33	0.31					
Area Speed		57.4	57.8					
Outer Lanes Volume		913	985					
Outer Lanes Speed		63.5	63.3					
Segment Speed		60.6	60.8					
v/c ratio		0.33	0.32					
Density		16.5	15.2					
LOS		B	B					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

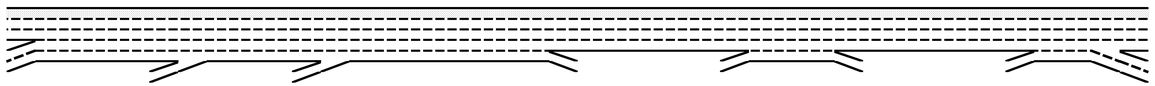
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				3,946				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.646				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				1,908				
v_3 (pcph)								
v_{34} (pcph)				2,038				
v_{12a} (pcph)				1,908				
Speed Index				0.33				
Area Speed				57.5				
Outer Lanes Volume				1,019				
Outer Lanes Speed				71.2				
Segment Speed				63.8				
v/c ratio				0.43				
Density				13.9				
LOS				B				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

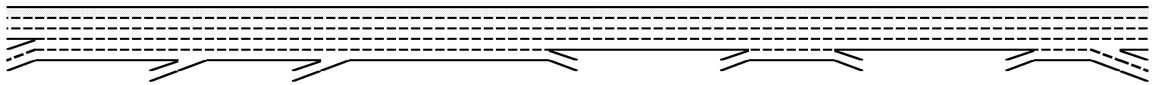
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

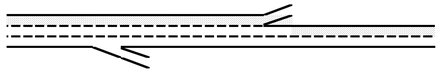


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.34	0.33	0.32	0.43	0.43		0.44	
Segment Density	12.4	16.5	15.2	13.9	15.5		16.1	
Segment LOS	B	B	B	B	B		B	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

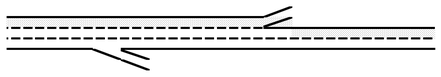


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,727	1,544	1,264
On Ramp Volume			
Off Ramp Volume	183	280	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,727	1,544	1,264
PHF	0.77	0.77	0.77
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,277	2,035	1,666
Flow (pcphpl)	759	678	833
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.32	0.28	0.35
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	11.7	9.7	11.9
LOS	B	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

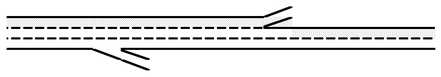


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,035	1,666	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.29	0.35	
Flow Rate (pcphpl)	678	833	
Speed (mph)	65.0	70.0	
Density (pcphpl)	10.4	11.9	
LOS	A	B	

Location	1	2	3



Key

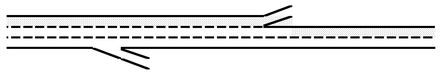
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3

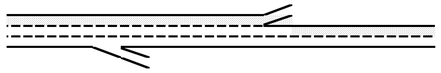


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	183	280	
PHF	0.77	0.77	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	241	369	
Flow Rate (pcphpl)	241	369	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.18	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		241	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

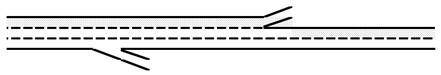


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,277		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.692		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.692		
v_{12} (pcph)	1,650		
v_3 (pcph)	627		
v_{34} (pcph)			
v_{12a} (pcph)	1,650		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	627		
Outer Lanes Speed	71.3		
Segment Speed	60.9		
v/c ratio	0.37		
Density	17.1		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

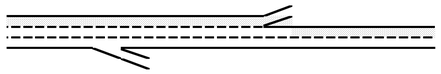


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

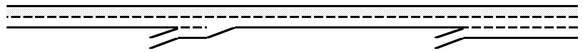
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.37	0.28	0.35
Segment Density	17.1	9.7	11.9
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

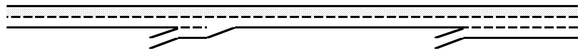


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	955	955	1,039	1,039
On Ramp Volume		84		142
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	955	955	1,039	1,039
PHF	0.77	0.77	0.77	0.77
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	1,259	1,259	1,370	1,370
Flow (pcphpl)	629	629	685	457
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.28	0.27	0.29	0.19
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	11.4	9.7	10.5	7.0
LOS	B	A	A	A
Operations for Segment GP Lanes				
Flow (pcph)		1,370		1,557
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.29		0.22
Flow Rate (pcphpl)		685		519
Speed (mph)		65.0		65.0
Density (pcphpl)		10.5		8.0
LOS		A		A

Location	1	2	3	4

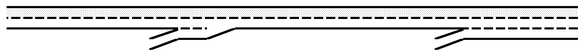


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

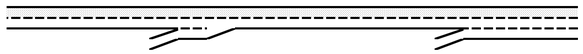


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		84		142
PHF		0.77		0.77
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		111		187
Flow Rate (pcphpl)		111		187
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.05		0.09

Location	1	2	3	4

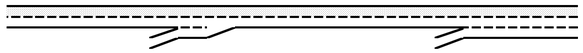


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		1,259		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		1,259		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		1,259		
v_{R12a} (pcph)		1,370		
Speed Index		0.27		
Area Speed		58.8		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.8		
v/c ratio		0.30		
Density		11.4		
LOS		B		

Location	1	2	3	4

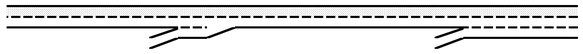


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

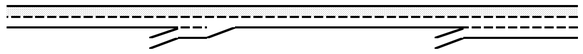


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

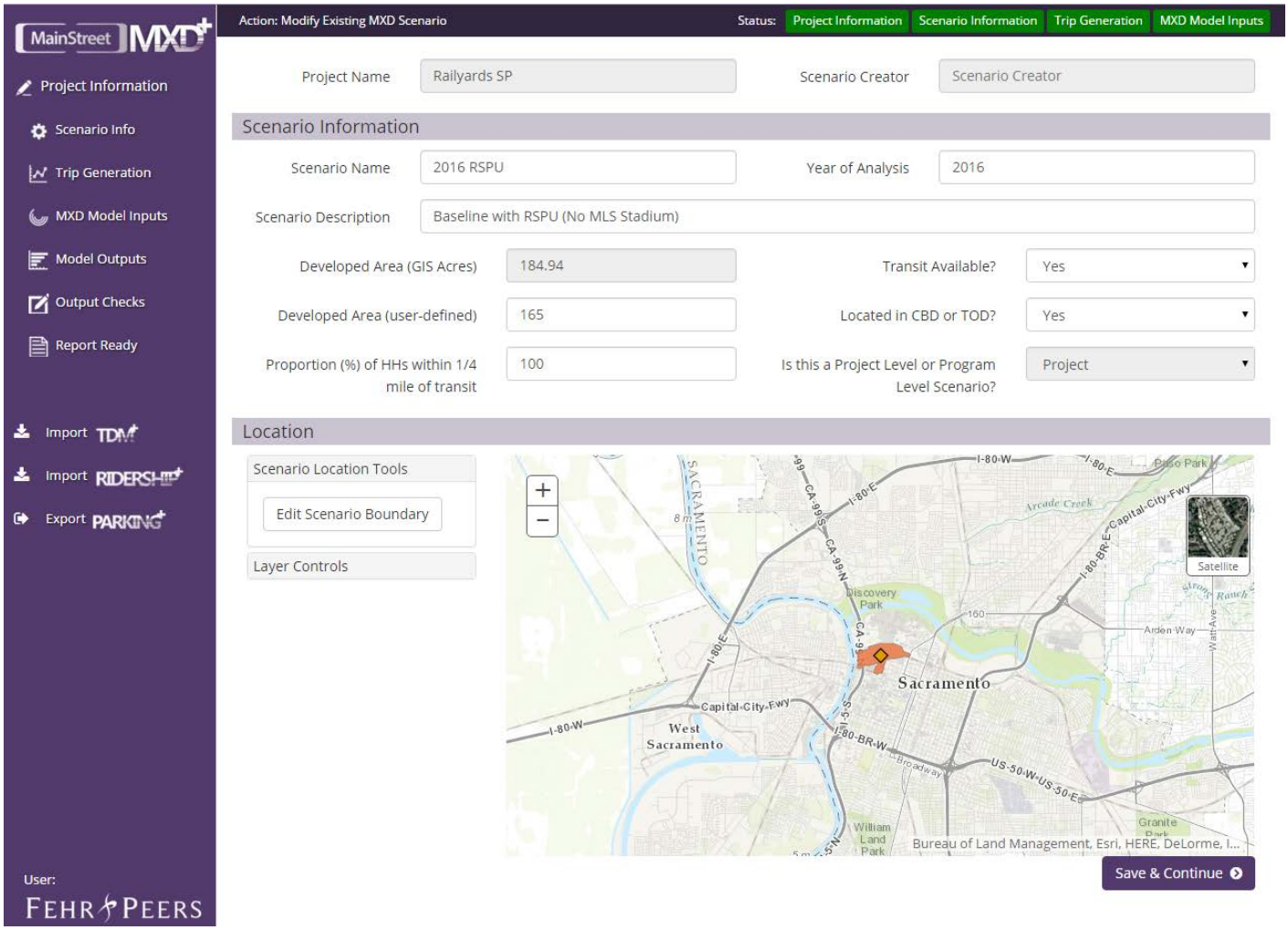
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.28	0.30	0.29	0.22
Segment Density	11.4	11.4	10.5	8.0
Segment LOS	B	B	A	A
Over Capacity				

APPENDIX J.1.10:

RSPU, 2007 Plan, and Land Use Variant Trip Generation

RSPU Trip Generation – Baseline Conditions

MODEL INPUTS



Railyards Specific Plan Update (RSPU) Trip Generation

	FP Category	ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	Am Out	AM Total	PM In	PM Out	PM Total
⊗	Office	(610) - Hospital (Pk Hr of Generator, AM & PM)	610	1000 sq ft gross floor area	658	8699	373	259	632	305	458	763
⊗	Office	(720) - Medical-Dental Office Building (Adj Streets, 7-9A, 4-6P)	720	1000 sq ft gross floor area	510	18426	963	256	1219	510	1311	1821
⊗	Retail	Custom	000	Custom	905.36	53416	746	456	1204	2173	2354	4527
⊗	Hotel	(310) - Hotel (Adj Streets, 7-9A, 4-6P)	310	Rooms	1100	8987	344	239	583	337	323	660
⊗	Residential	(232) - High-Rise Residential Condominium/Townhouse(Pk Adj Streets, 7-9A, 4-6P)	232	Dwelling Units	6000	25080	388	1652	2040	1414	866	2280
⊗	Other	(580) - Museum (Adj Streets, 7-9A, 4-6P)	580	1000 sq ft gross floor area	180	0	138	22	160	17	87	104
⊗	Office	(710) - General Office Building (Pk Hr, AM & PM)	710	1000 sq ft gross floor area	4542.73	50106	6237	850	7087	1151	5618	6769
TOTAL						164714	9189	3734	12925	5907	11017	16924

Notes on ITE trip rate estimates above:

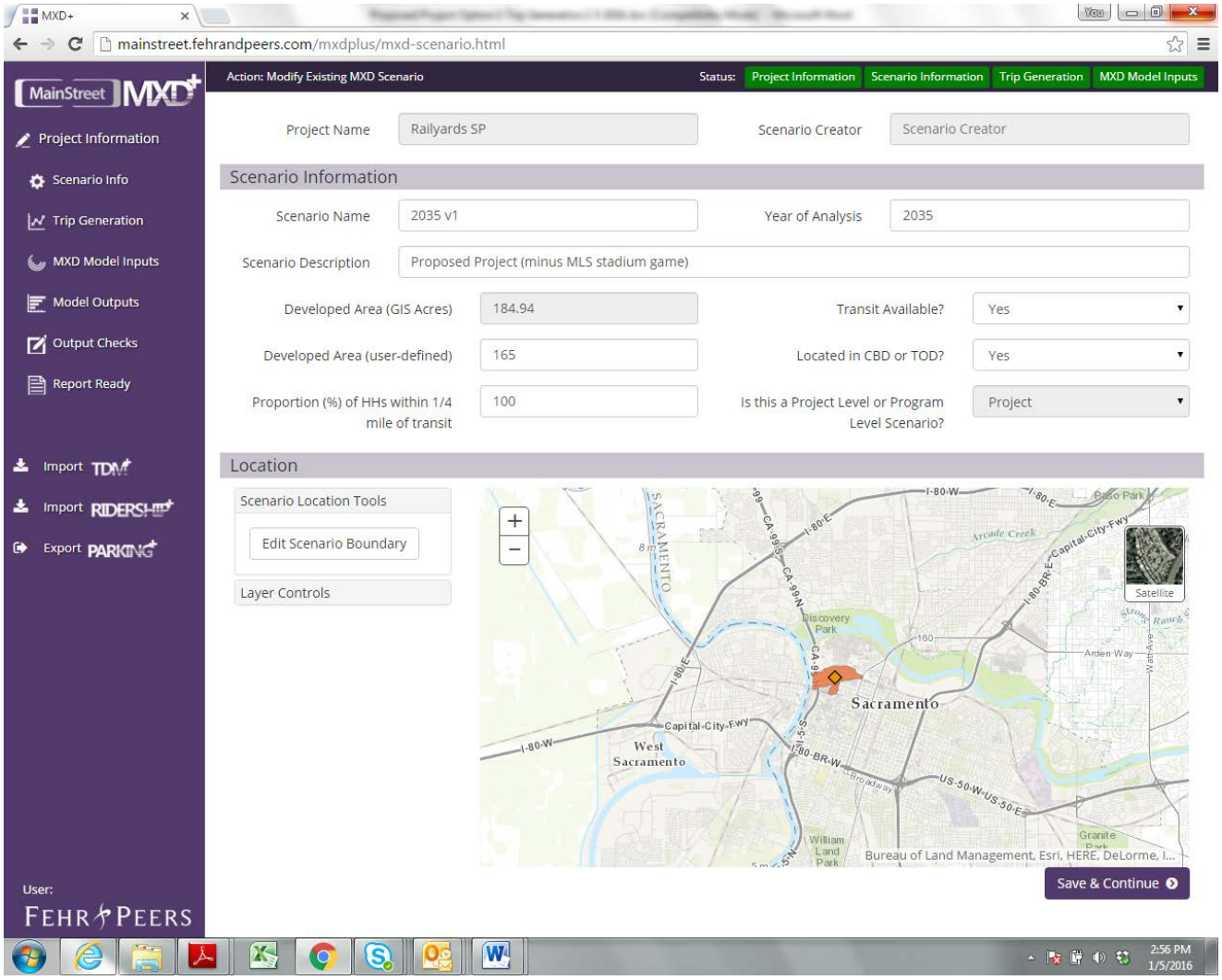
- General Office – average rate used given amount of office space
- Retail – custom rate of 59 daily trips, 1.33 AM peak hour trips, and 5.00 PM peak hour trips per ksf used based on average size of approximately 150,000 square feet of retail per block area of the plan.
- Kaiser Medical Center generates 1,850 AM peak hour trips and 2,580 PM peak hour trips using ITE rates. This approximatley matches the project's unadjusted trip generation (see Table 4 of Tech Memo #2) of 2,056 AM peak hour trips and 2,500 PM peak hour trips.
- Museum land use does not include a daily trip rate. Accordingly, we have manually added 1,600 daily trips to the total trip generation.
- Trips associated with proposed Stadium are handled outside of the MXD+ Model.

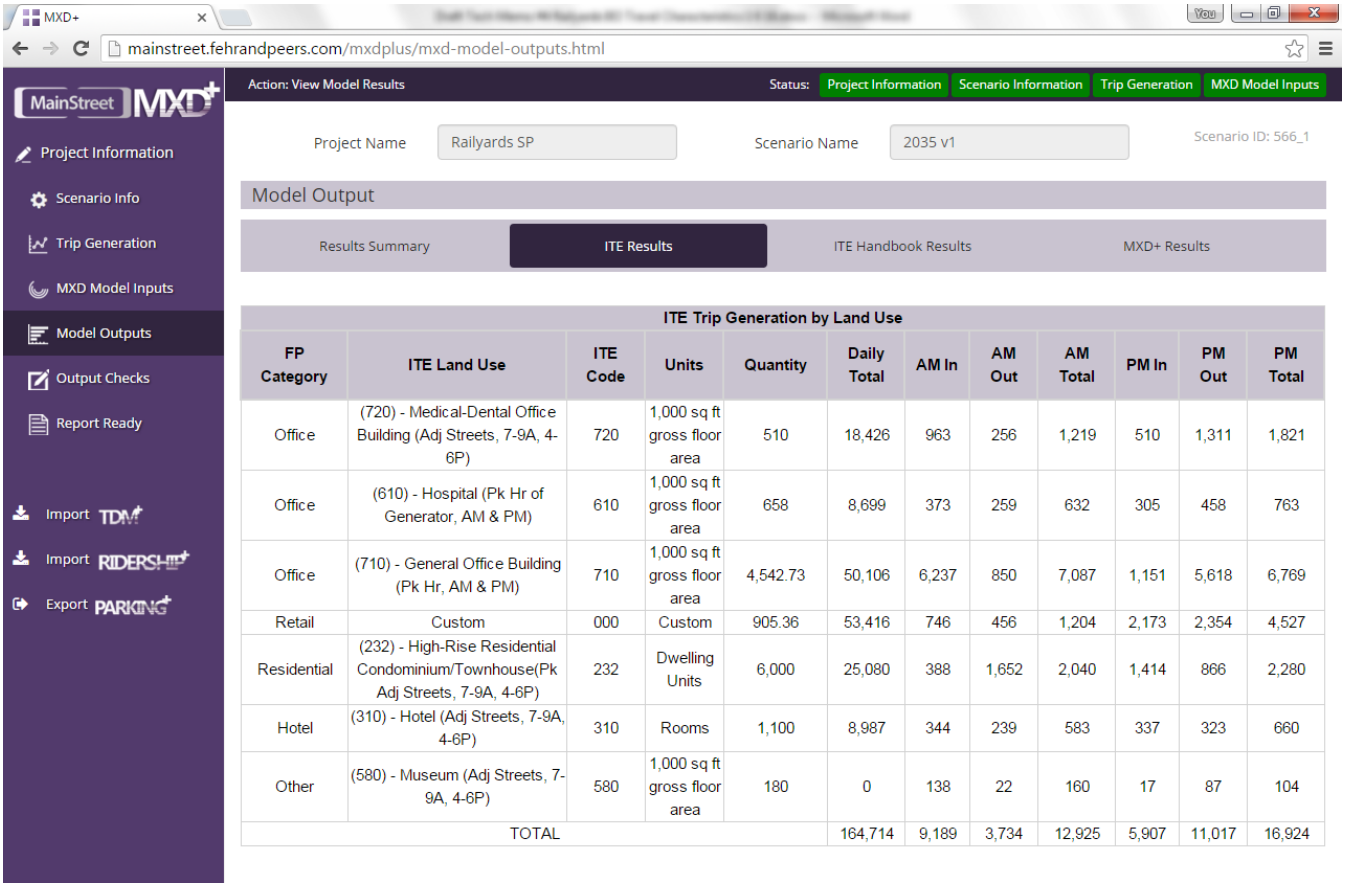
MODEL OUTPUT (BASELINE PLUS RSPU CONDITIONS)

MXD+ Vehicle Trip Generation Reduction Percent			
	Daily	AM	PM
Internal Capture	12.7%	17.7%	19.8%
Shift to Transit	7.3%	12.8%	12.7%
Shift to Walk/Bike	11.9%	14.5%	11%

RSPU Trip Generation – Cumulative Conditions

MODEL INPUTS





ITE Trip Generation by Land Use

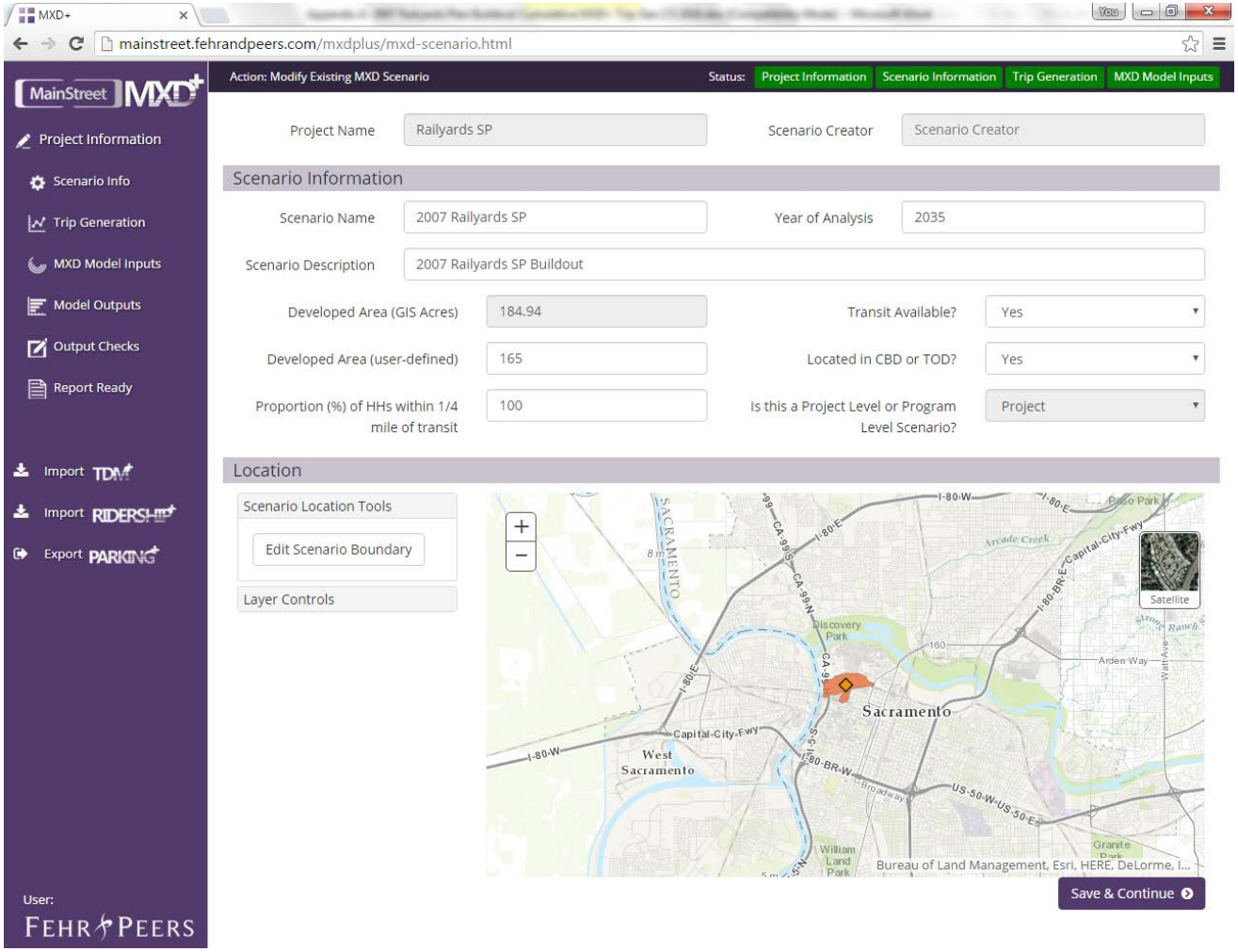
FP Category	ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Office	(720) - Medical-Dental Office Building (Adj Streets, 7-9A, 4-6P)	720	1,000 sq ft gross floor area	510	18,426	963	256	1,219	510	1,311	1,821
Office	(610) - Hospital (Pk Hr of Generator, AM & PM)	610	1,000 sq ft gross floor area	658	8,699	373	259	632	305	458	763
Office	(710) - General Office Building (Pk Hr, AM & PM)	710	1,000 sq ft gross floor area	4,542.73	50,106	6,237	850	7,087	1,151	5,618	6,769
Retail	Custom	000	Custom	905.36	53,416	746	456	1,204	2,173	2,354	4,527
Residential	(232) - High-Rise Residential Condominium/Townhouse(Pk Adj Streets, 7-9A, 4-6P)	232	Dwelling Units	6,000	25,080	388	1,652	2,040	1,414	866	2,280
Hotel	(310) - Hotel (Adj Streets, 7-9A, 4-6P)	310	Rooms	1,100	8,987	344	239	583	337	323	660
Other	(580) - Museum (Adj Streets, 7-9A, 4-6P)	580	1,000 sq ft gross floor area	180	0	138	22	160	17	87	104
TOTAL					164,714	9,189	3,734	12,925	5,907	11,017	16,924

MODEL OUTPUT (CUMULATIVE PLUS RSPU CONDITIONS)

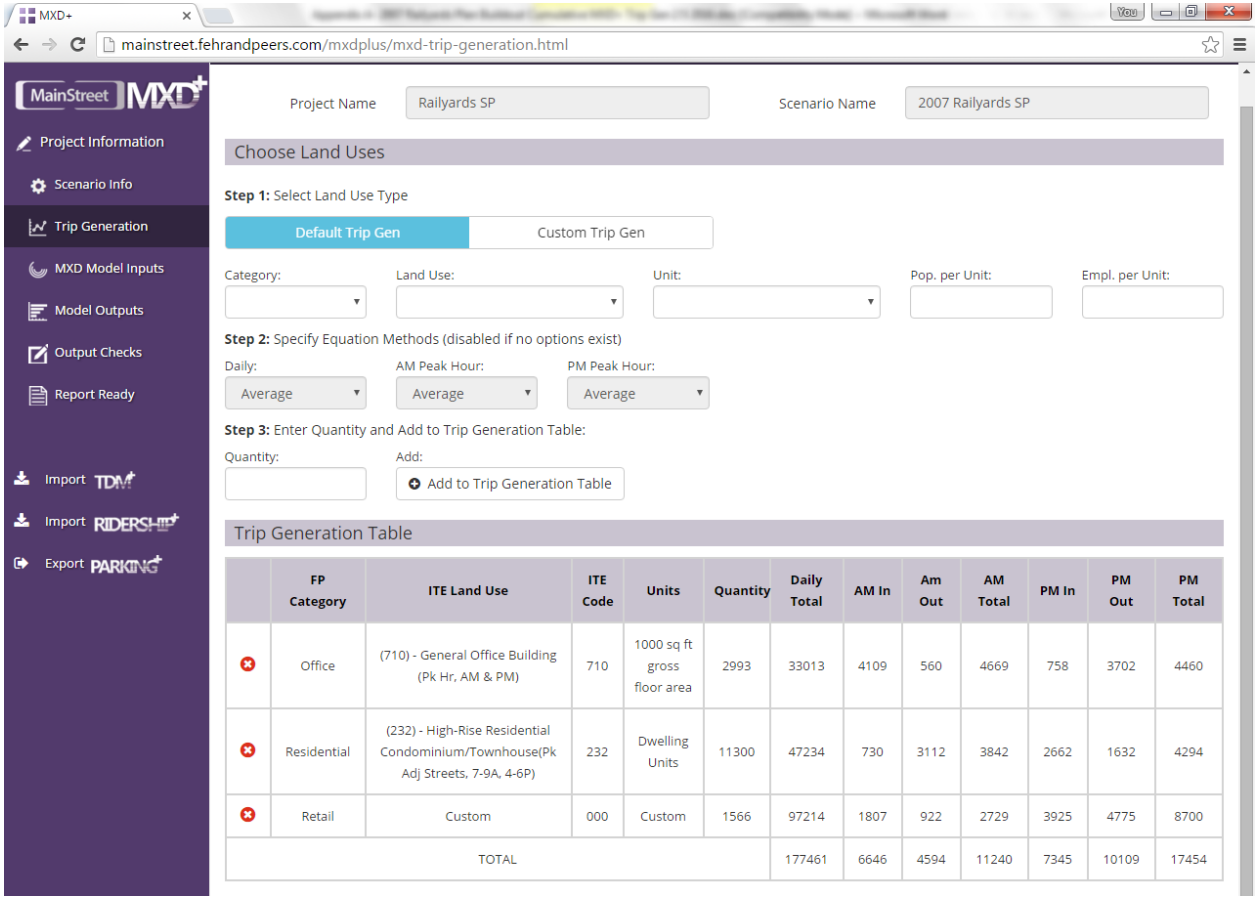
MXD+ Vehicle Trip Generation Reduction Percent			
	Daily	AM	PM
Internal Capture	12.5%	16.6%	18.4%
Shift to Transit	7.8%	13.8%	13.8%
Shift to Walk/Bike	15.6%	19%	14.6%

2007 Railyards Specific Plan Trip Generation – Cumulative Conditions

MODEL INPUTS



2007 Railyards Specific Plan and Land Use Variant Trip Generation



	FP Category	ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	Am Out	AM Total	PM In	PM Out	PM Total
⊗	Office	(710) - General Office Building (Pk Hr, AM & PM)	710	1000 sq ft gross floor area	2993	33013	4109	560	4669	758	3702	4460
⊗	Residential	(232) - High-Rise Residential Condominium/Townhouse(Pk Adj Streets, 7-9A, 4-6P)	232	Dwelling Units	11300	47234	730	3112	3842	2662	1632	4294
⊗	Retail	Custom	000	Custom	1566	97214	1807	922	2729	3925	4775	8700
TOTAL						177461	6646	4594	11240	7345	10109	17454

Notes on ITE trip rate estimates above:

- General Office – average rate used given amount of office space (i.e., consistent with approach used for trip generation of RSPU Buildout)
- Retail – custom rate of 59 daily trips, 1.33 AM peak hour trips, and 5.00 PM peak hour trips per ksf used based on average size of approximately 150,000 square feet of retail per block area of the plan. This approach maintains consistency with methodology used for RSPU Buildout.

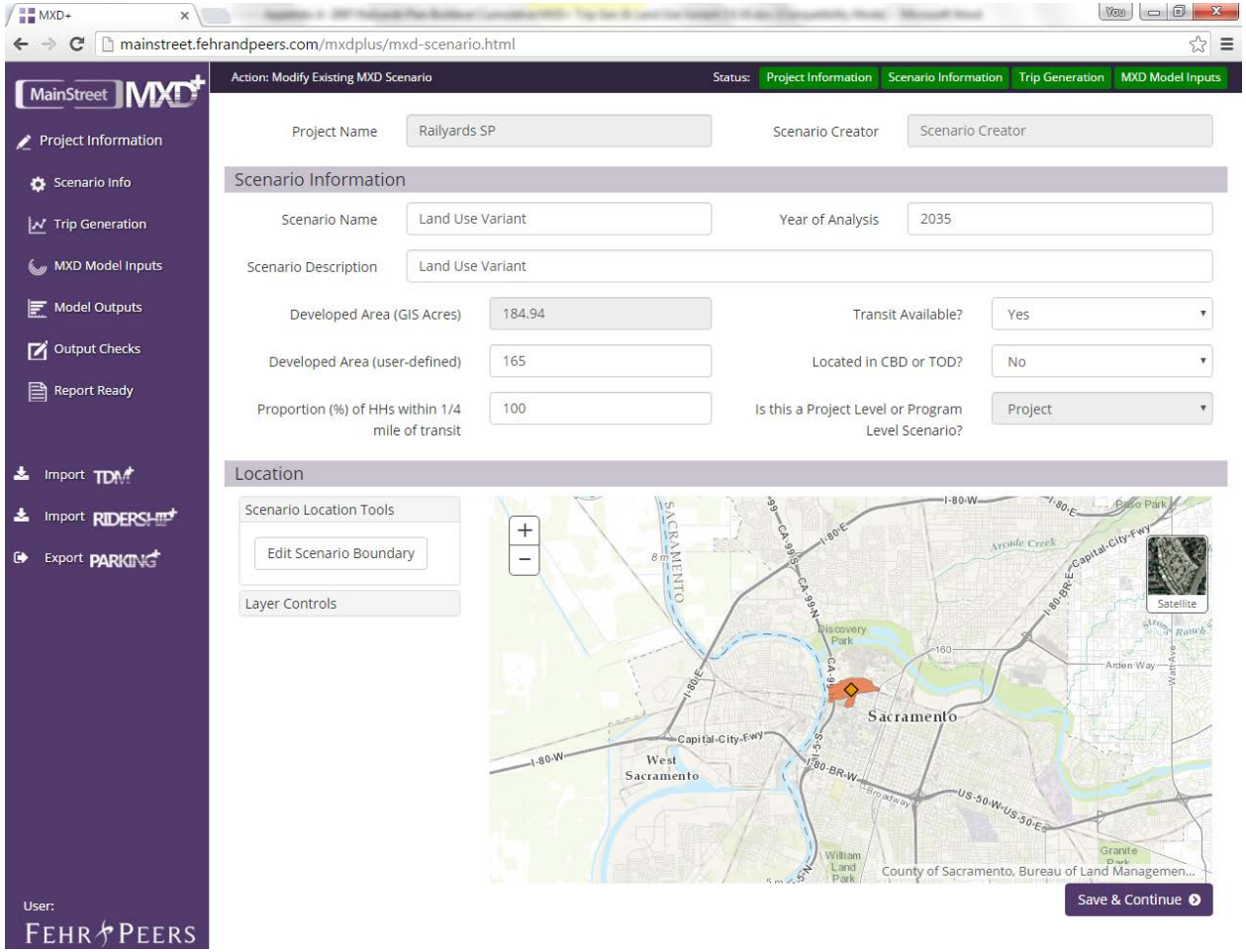
- MXD+ allows for only one 'custom land use'. Therefore, trip generation of 'other uses' (i.e., museum and performing arts center) were added to the other retail category. Trips for these categories were assumed to be 4,819 daily, 645 AM peak hour, and 869 PM peak hour per 2007 Railyards DEIR.

MODEL OUTPUT (CUMULATIVE PLUS 2007 RAILYARDS SPECIFIC PLAN)

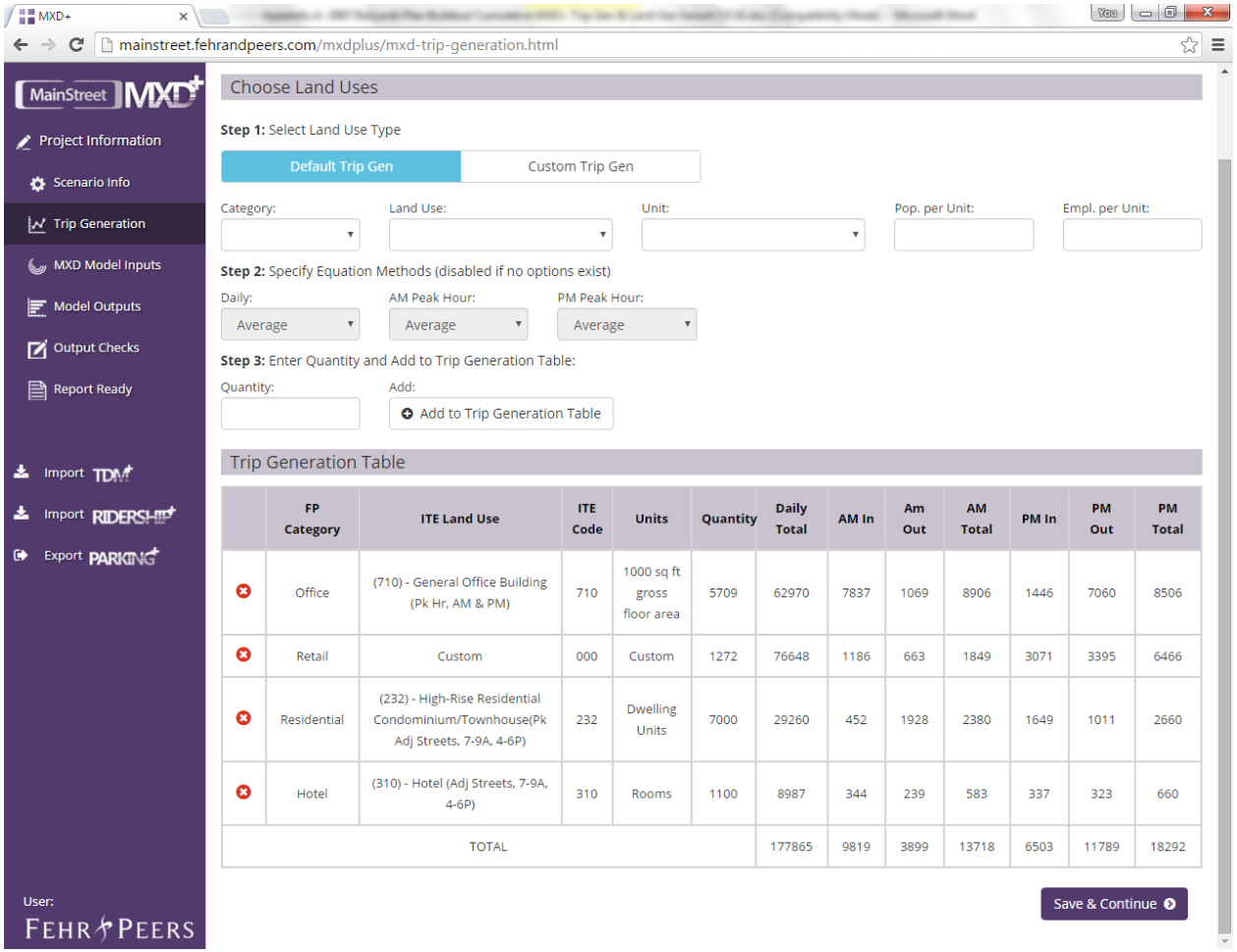
MXD+ Vehicle Trip Generation Reduction Percent			
	Daily	AM	PM
Internal Capture	14.8%	19.6%	25.3%
Shift to Transit	7.8%	13.3%	12.8%
Shift to Walk/Bike	15.4%	19%	13.5%

Land Use Variant Trip Generation – Cumulative Conditions

MODEL INPUTS



2007 Railyards Specific Plan and Land Use Variant Trip Generation



	FP Category	ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	Am Out	AM Total	PM In	PM Out	PM Total
	Office	(710) - General Office Building (Pk Hr, AM & PM)	710	1000 sq ft gross floor area	5709	62970	7837	1069	8906	1446	7060	8506
	Retail	Custom	000	Custom	1272	76648	1186	663	1849	3071	3395	6466
	Residential	(232) - High-Rise Residential Condominium/Townhouse(Pk Adj Streets, 7-9A, 4-6P)	232	Dwelling Units	7000	29260	452	1928	2380	1649	1011	2660
	Hotel	(310) - Hotel (Adj Streets, 7-9A, 4-6P)	310	Rooms	1100	8987	344	239	583	337	323	660
TOTAL						177865	9819	3899	13718	6503	11789	18292

Notes on ITE trip rate estimates above:

- General Office – average rate used given amount of office space (i.e., consistent with approach used for trip generation of RSPU Buildout)

- Retail – custom rate of 59 daily trips, 1.33 AM peak hour trips, and 5.00 PM peak hour trips per ksf used based on average size of approximately 150,000 square feet of retail per block area of the plan. This approach maintains consistency with methodology used for RSPU Buildout.
- MXD+ allows for only one 'custom land use'. Therefore, trip generation of museum use was added to the other retail category. Trips for these categories were assumed to be 1,600 daily, 160 AM peak hour, and 104 PM peak hour per 2007 Railyards DEIR.

MODEL OUTPUT (CUMULATIVE PLUS LAND USE VARIANT)

MXD+ Vehicle Trip Generation Reduction Percent			
	Daily	AM	PM
Internal Capture	13.8%	20%	15.8%
Shift to Transit	9%	15.2%	14.6%
Shift to Walk/Bike	13.9%	16.7%	13.5%

APPENDIX J.1.11:

Baseline Plus RSPU Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	997	835	83.7%	60.1	8.8	E
	Through	12	11	93.3%	60.3	26.8	E
	Right Turn	894	764	85.5%	52.9	7.8	D
	Subtotal	1,903	1,610	84.6%	56.8	8.1	E
EB	Left Turn						
	Through	217	228	104.9%	20.2	3.0	C
	Right Turn	66	59	89.1%	3.5	1.4	A
	Subtotal	283	286	101.2%	16.8	2.5	B
WB	Left Turn	228	203	89.1%	10.4	2.1	B
	Through	158	154	97.2%	7.9	1.8	A
	Right Turn						
	Subtotal	386	357	92.4%	9.3	1.9	A
Total		2,572	2,253	87.6%	44.2	6.0	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	71	101.7%	50.2	31.8	D
	Through	8	8	105.0%	45.2	38.3	D
	Right Turn	1,086	1,002	92.2%	71.5	25.0	E
	Subtotal	1,164	1,081	92.9%	70.0	25.4	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	67	69	102.7%	16.7	6.7	B
	Through	1,147	977	85.2%	6.2	1.0	A
	Right Turn						
	Subtotal	1,214	1,046	86.2%	6.9	1.2	A
WB	Left Turn						
	Through	316	284	90.0%	13.0	2.9	B
	Right Turn	505	441	87.4%	3.1	0.3	A
	Subtotal	821	726	88.4%	7.0	1.2	A
Total		3,199	2,853	89.2%	30.4	8.4	C

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	351	352	100.3%	49.9	9.3	D
	Through	64	57	89.4%	52.9	10.4	D
	Right Turn	10	8	84.0%	25.7	8.6	C
	Subtotal	425	418	98.3%	49.8	9.0	D
SB	Left Turn	36	30	84.4%	34.0	7.5	C
	Through	23	20	85.2%	37.4	10.2	D
	Right Turn	48	53	110.0%	5.8	1.6	A
	Subtotal	107	103	96.1%	19.9	4.1	B
EB	Left Turn	97	84	87.0%	39.2	3.8	D
	Through	1,195	1,078	90.2%	22.9	3.3	C
	Right Turn	941	825	87.7%	5.5	0.6	A
	Subtotal	2,233	1,988	89.0%	16.4	2.1	B
WB	Left Turn	57	48	84.9%	31.2	3.9	C
	Through	422	337	79.8%	19.9	2.5	B
	Right Turn	10	8	76.0%	18.2	15.1	B
	Subtotal	489	393	80.3%	21.4	2.2	C
Total		3,254	2,901	89.1%	22.1	2.7	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	23	108.6%	37.3	10.7	D
	Through	5	4	80.0%	16.7	19.1	B
	Right Turn	8	8	100.0%	6.1	4.2	A
	Subtotal	34	35	102.4%	29.3	8.3	C
SB	Left Turn	25	24	96.0%	35.8	6.6	D
	Through	5	5	104.0%	30.3	23.3	C
	Right Turn	17	15	89.4%	4.2	2.7	A
	Subtotal	47	44	94.5%	26.1	7.0	C
EB	Left Turn	57	53	92.6%	37.2	6.9	D
	Through	1,090	960	88.0%	4.9	0.8	A
	Right Turn	94	80	85.1%	4.7	1.9	A
	Subtotal	1,241	1,092	88.0%	6.5	0.8	A
WB	Left Turn	21	16	76.2%	39.6	13.2	D
	Through	451	355	78.7%	5.9	1.7	A
	Right Turn	41	35	85.9%	3.7	2.2	A
	Subtotal	513	406	79.1%	6.9	1.5	A
Total		1,835	1,578	86.0%	7.7	0.9	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	101	102.2%	41.1	4.9	D
	Through	23	20	88.7%	40.2	10.2	D
	Right Turn	13	14	107.7%	17.2	7.2	B
	Subtotal	135	136	100.4%	38.3	4.6	D
SB	Left Turn	5	6	112.0%	24.7	19.8	C
	Through	15	12	80.0%	33.3	18.4	C
	Right Turn	7	8	120.0%	6.2	2.6	A
	Subtotal	27	26	96.3%	26.0	6.3	C
EB	Left Turn	56	48	86.4%	33.0	8.1	C
	Through	936	815	87.1%	11.7	1.9	B
	Right Turn	131	122	92.8%	10.9	4.1	B
	Subtotal	1,123	985	87.7%	12.7	2.0	B
WB	Left Turn	32	23	71.3%	47.6	14.1	D
	Through	407	309	75.9%	6.4	2.3	A
	Right Turn	26	22	86.2%	3.8	2.1	A
	Subtotal	465	354	76.1%	8.8	2.4	A
Total		1,750	1,500	85.7%	14.4	1.8	B

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	5	74.3%	23.9	25.4	C
	Through	5	4	80.0%	32.4	33.7	C
	Right Turn	5	3	64.0%	2.1	2.2	A
	Subtotal	17	12	72.9%	27.6	19.3	C
SB	Left Turn	11	13	116.4%	32.7	21.2	C
	Through	5	6	128.0%	26.8	23.5	C
	Right Turn	22	18	83.6%	4.9	1.2	A
	Subtotal	38	38	98.9%	20.3	10.5	C
EB	Left Turn	44	42	94.5%	40.6	7.1	D
	Through	902	776	86.1%	5.2	1.5	A
	Right Turn	8	5	60.0%	2.0	3.3	A
	Subtotal	954	823	86.2%	6.9	1.2	A
WB	Left Turn	9	4	44.4%	35.9	29.2	D
	Through	436	342	78.4%	6.3	2.9	A
	Right Turn	12	11	93.3%	3.9	3.1	A
	Subtotal	457	357	78.2%	6.8	2.5	A
Total		1,466	1,230	83.9%	7.5	0.9	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	33	30	92.1%	36.6	11.6	D
	Through	75	67	89.6%	27.9	9.6	C
	Right Turn	5	6	120.0%	7.5	7.6	A
	Subtotal	113	104	91.7%	28.6	5.1	C
SB	Left Turn	7	8	114.3%	32.1	28.9	C
	Through	20	17	84.0%	40.6	20.4	D
	Right Turn	17	19	112.9%	29.3	11.7	C
	Subtotal	44	44	100.0%	37.1	7.8	D
EB	Left Turn	120	107	89.0%	40.3	6.7	D
	Through	709	605	85.4%	25.3	6.1	C
	Right Turn	89	77	86.7%	21.4	6.6	C
	Subtotal	918	789	86.0%	26.9	4.9	C
WB	Left Turn	588	383	65.1%	69.7	15.6	E
	Through	409	324	79.1%	19.9	6.9	B
	Right Turn	12	11	93.3%	20.2	10.0	C
	Subtotal	1,009	718	71.1%	46.4	10.2	D
Total		2,084	1,654	79.4%	35.8	6.2	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	14	10	71.4%	28.8	19.0	C
	Through	37	32	85.4%	28.4	10.3	C
	Right Turn	258	268	104.0%	8.3	1.5	A
	Subtotal	309	310	100.3%	11.2	1.8	B
SB	Left Turn	8	8	100.0%	33.1	28.4	C
	Through	7	8	114.3%	34.4	16.6	C
	Right Turn	44	48	109.1%	7.6	2.9	A
	Subtotal	59	64	108.5%	14.8	3.8	B
EB	Left Turn	127	109	86.0%	43.7	7.1	D
	Through	456	372	81.6%	14.9	4.5	B
	Right Turn	138	128	93.0%	7.9	1.8	A
	Subtotal	721	610	84.5%	18.4	2.9	B
WB	Left Turn	161	126	78.3%	38.0	4.3	D
	Through	1,030	810	78.6%	9.8	1.4	A
	Right Turn	5	3	64.0%	2.0	3.5	A
	Subtotal	1,196	939	78.5%	13.5	1.1	B
Total		2,285	1,922	84.1%	14.7	0.8	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	20	92.7%	37.1	15.0	D
	Through	6	5	86.7%	21.8	20.4	C
	Right Turn	26	28	106.2%	8.5	4.0	A
	Subtotal	54	53	98.5%	22.5	9.1	C
SB	Left Turn	37	38	101.6%	31.0	7.3	C
	Through	3	4	120.0%	26.4	31.2	C
	Right Turn	29	36	124.1%	13.2	7.3	B
	Subtotal	69	77	111.9%	23.8	6.9	C
EB	Left Turn	25	23	91.2%	44.3	17.7	D
	Through	669	578	86.3%	11.4	1.8	B
	Right Turn	28	26	92.9%	6.3	4.7	A
	Subtotal	722	626	86.8%	12.3	2.0	B
WB	Left Turn	137	116	84.4%	40.8	9.3	D
	Through	1,145	927	80.9%	10.7	2.3	B
	Right Turn	19	11	56.8%	8.0	5.3	A
	Subtotal	1,301	1,053	81.0%	14.0	2.3	B
Total		2,146	1,810	84.3%	14.2	1.6	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	62	50	81.3%	57.9	12.7	E
	Through	1,106	1,128	102.0%	13.2	1.9	B
	Right Turn	1	1	80.0%	0.3	0.6	A
	Subtotal	1,169	1,179	100.8%	15.1	2.5	B
SB	Left Turn						
	Through	2,506	2,299	91.7%	65.9	8.5	E
	Right Turn	1,351	1,160	85.9%	89.1	9.1	F
	Subtotal	3,857	3,459	89.7%	73.7	7.9	E
EB	Left Turn	589	496	84.3%	52.4	5.0	D
	Through						
	Right Turn	20	14	68.0%	4.6	0.8	A
	Subtotal	609	510	83.7%	51.1	4.8	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		5,635	5,148	91.4%	58.0	5.4	E

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	376	372	99.0%	17.0	4.6	C
	Right Turn	3	2	53.3%	6.7	10.6	A
	Subtotal	379	374	98.7%	17.0	4.6	C
SB	Left Turn	245	218	89.1%	7.1	0.4	A
	Through	776	676	87.2%	7.0	0.4	A
	Right Turn						
	Subtotal	1,021	895	87.6%	7.0	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	4	146.7%	13.9	18.6	B
	Through						
	Right Turn	49	57	116.7%	4.3	1.5	A
	Subtotal	52	62	118.5%	5.5	3.4	A
Total		1,452	1,330	91.6%	9.9	1.9	A

Intersection 12 **N 16th St/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	56	127.3%	8.1	2.1	A
	Through	130	132	101.5%	7.7	1.5	A
	Right Turn						
	Subtotal	174	188	108.0%	7.7	1.4	A
SB	Left Turn						
	Through	170	149	87.5%	7.2	0.6	A
	Right Turn	8	6	80.0%	4.6	2.9	A
	Subtotal	178	155	87.2%	7.1	0.7	A
EB	Left Turn	5	3	64.0%	2.2	2.5	A
	Through						
	Right Turn	243	218	89.9%	4.3	0.8	A
	Subtotal	248	222	89.4%	4.3	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		600	565	94.1%	6.2	0.6	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	100.0%	15.7	10.6	B
	Through	13	10	73.8%	12.5	8.2	B
	Right Turn						
	Subtotal	29	26	88.3%	14.0	6.5	B
SB	Left Turn						
	Through	25	18	70.4%	11.5	3.7	B
	Right Turn	33	24	72.7%	6.9	4.2	A
	Subtotal	58	42	71.7%	9.0	3.2	A
EB	Left Turn						
	Through	8	9	115.0%	10.4	10.1	B
	Right Turn						
	Subtotal	8	9	115.0%	10.4	10.1	B
WB	Left Turn	39	35	90.3%	7.1	3.8	A
	Through	2,479	2,221	89.6%	8.7	2.5	A
	Right Turn	8	6	80.0%	5.4	2.6	A
	Subtotal	2,526	2,262	89.6%	8.7	2.5	A
Total		2,621	2,339	89.2%	8.8	2.5	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	5	68.6%	21.3	18.5	C
	Through	178	134	75.3%	15.3	2.7	B
	Right Turn	62	47	76.1%	9.6	3.3	A
	Subtotal	247	186	75.3%	14.2	2.3	B
SB	Left Turn	279	284	101.6%	32.5	4.0	C
	Through	334	329	98.6%	23.2	2.1	C
	Right Turn	29	26	91.0%	17.1	6.0	B
	Subtotal	642	639	99.6%	27.1	2.8	C
EB	Left Turn	3	4	120.0%	16.8	14.6	B
	Through	3	4	133.3%	5.8	6.6	A
	Right Turn	4	6	140.0%	4.0	2.3	A
	Subtotal	10	13	132.0%	9.7	4.6	A
WB	Left Turn	53	55	103.4%	16.1	3.1	B
	Through	13	10	80.0%	14.8	7.7	B
	Right Turn	361	355	98.3%	7.7	0.9	A
	Subtotal	427	420	98.4%	8.9	1.0	A
Total		1,326	1,258	94.9%	19.0	2.0	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	27	23	84.4%	7.3	1.3	A
	Through	93	86	92.9%	7.9	0.7	A
	Right Turn	46	47	102.6%	5.8	0.5	A
	Subtotal	166	156	94.2%	7.2	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	41	37	90.7%	8.9	1.2	A
	Through	199	191	95.9%	9.2	0.8	A
	Right Turn						
	Subtotal	240	228	95.0%	9.2	0.8	A
WB	Left Turn						
	Through	423	421	99.6%	8.3	1.1	A
	Right Turn	13	12	95.4%	8.9	4.3	A
	Subtotal	436	434	99.4%	8.3	1.1	A
Total		842	818	97.1%	8.4	0.6	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	0	8.0%	3.0	8.0	A
	Through	234	143	61.0%	11.5	3.4	B
	Right Turn						
	Subtotal	239	143	59.9%	11.5	3.4	B
SB	Left Turn						
	Through	357	352	98.5%	13.4	1.6	B
	Right Turn	4	4	100.0%	11.0	11.4	B
	Subtotal	361	356	98.5%	13.4	1.6	B
EB	Left Turn	88	68	76.8%	18.4	4.0	B
	Through						
	Right Turn	382	302	79.2%	6.3	0.7	A
	Subtotal	470	370	78.7%	8.6	1.6	A
WB	Left Turn	78	76	96.9%	25.7	12.0	C
	Through	642	574	89.5%	21.6	9.9	C
	Right Turn	166	160	96.4%	11.0	5.2	B
	Subtotal	886	810	91.4%	19.9	9.0	B
Total		1,956	1,679	85.8%	15.1	3.7	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	4	33.8%	31.9	28.9	C
	Through	824	402	48.7%	10.2	2.9	B
	Right Turn	476	235	49.4%	9.4	3.2	A
	Subtotal	1,313	641	48.8%	10.1	2.9	B
SB	Left Turn	36	25	70.0%	33.9	6.4	C
	Through	683	540	79.0%	20.6	3.1	C
	Right Turn	5	3	64.0%	13.3	14.5	B
	Subtotal	724	568	78.5%	21.2	3.0	C
EB	Left Turn	5	3	64.0%	8.2	11.3	A
	Through	39	44	112.8%	15.4	4.6	B
	Right Turn	5	5	104.0%	5.0	4.5	A
	Subtotal	49	52	106.9%	14.6	4.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,086	1,262	60.5%	15.3	2.5	B

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	366	177	48.4%	20.8	1.5	C
	Right Turn	331	176	53.3%	10.3	1.8	B
	Subtotal	697	354	50.7%	15.6	1.6	B
SB	Left Turn	171	155	90.5%	38.0	7.7	D
	Through	232	232	100.2%	23.3	3.3	C
	Right Turn						
	Subtotal	403	387	96.1%	29.2	4.4	C
EB	Left Turn	180	86	47.6%	10.4	2.4	B
	Through	343	198	57.8%	8.1	1.2	A
	Right Turn	28	17	60.0%	4.9	3.1	A
	Subtotal	551	301	54.6%	8.7	1.1	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,651	1,042	63.1%	18.7	2.2	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	413	363	87.9%	18.6	2.3	B
	Through	371	331	89.2%	13.9	2.4	B
	Right Turn						
	Subtotal	784	694	88.5%	16.4	2.4	B
EB	Left Turn	234	140	60.0%	11.9	6.4	B
	Through	525	333	63.5%	10.3	5.9	B
	Right Turn	86	50	57.7%	5.7	2.3	A
	Subtotal	845	523	61.9%	10.3	5.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,629	1,217	74.7%	13.8	2.5	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	662	664	100.4%	16.3	13.0	B
	Right Turn	125	129	103.0%	10.8	2.8	B
	Subtotal	787	793	100.8%	15.3	10.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	365	265	72.5%	11.8	7.4	B
	Through	461	342	74.3%	7.6	1.3	A
	Right Turn						
	Subtotal	826	607	73.5%	9.5	4.1	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,613	1,400	86.8%	12.8	7.8	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	12.1	14.5	B
	Through	1,247	598	48.0%	10.4	1.2	B
	Right Turn						
	Subtotal	1,252	602	48.1%	10.5	1.2	B
SB	Left Turn						
	Through						
	Right Turn	669	534	79.9%	14.4	2.2	B
	Subtotal	669	534	79.9%	14.4	2.2	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	903	818	90.6%	4.9	0.5	A
	Right Turn	73	62	85.5%	6.2	3.4	A
	Subtotal	976	880	90.2%	5.1	0.5	A
Total		2,897	2,016	69.6%	9.2	0.8	A

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	138	56	40.3%	16.4	3.1	B
	Through	588	260	44.3%	14.3	1.1	B
	Right Turn						
	Subtotal	726	316	43.5%	14.7	0.9	B
SB	Left Turn						
	Through	128	112	87.2%	19.8	3.1	B
	Right Turn	132	136	103.3%	10.1	1.6	B
	Subtotal	260	248	95.4%	14.5	2.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	67	109.5%	10.0	2.3	B
	Through	706	692	98.1%	10.9	1.2	B
	Right Turn	109	105	96.5%	14.0	5.6	B
	Subtotal	876	864	98.7%	11.3	1.7	B
Total		1,862	1,428	76.7%	12.6	1.1	B

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	314	261	83.2%	5.6	1.5	A
	Right Turn	143	114	80.0%	4.4	1.7	A
	Subtotal	457	376	82.2%	5.2	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	173	168	96.9%	8.9	1.7	A
	Through	733	772	105.3%	8.4	1.2	A
	Right Turn						
	Subtotal	906	940	103.7%	8.5	1.2	A
Total		1,363	1,315	96.5%	7.6	1.0	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	152	158	104.2%	19.1	3.2	B
	Through	543	555	102.2%	16.2	1.9	B
	Right Turn						
	Subtotal	695	713	102.6%	16.8	2.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	754	781	103.6%	10.7	0.7	B
	Right Turn	244	246	101.0%	11.4	2.5	B
	Subtotal	998	1,028	103.0%	10.9	1.0	B
Total		1,693	1,741	102.8%	13.3	1.1	B

Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	18	6	33.3%	248.3	91.0	F
	Through	1,739	797	45.8%	236.1	18.2	F
	Right Turn	217	120	55.1%	191.8	29.4	F
	Subtotal	1,974	922	46.7%	230.2	17.2	F
SB	Left Turn	76	42	54.7%	201.7	58.6	F
	Through	147	44	29.7%	248.5	47.3	F
	Right Turn						
	Subtotal	223	85	38.2%	227.2	45.2	F
EB	Left Turn	5	1	24.0%	115.8	203.5	F
	Through	1,222	504	41.2%	228.5	43.7	F
	Right Turn	764	340	44.6%	187.5	22.2	F
	Subtotal	1,991	845	42.5%	210.8	23.7	F
NB	Left Turn						
	Through						
	Right Turn	48	46	96.7%	12.3	5.6	B
	Subtotal	48	46	96.7%	12.3	5.6	B
Total		4,236	1,899	44.8%	214.8	9.1	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	335	336	100.4%	68.0	33.3	E
	Right Turn	470	436	92.7%	65.1	28.8	E
	Subtotal	805	772	95.9%	66.4	30.7	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	917	262	28.6%	98.9	4.9	F
	Through	2,190	1,051	48.0%	49.5	3.3	D
	Right Turn	5	1	24.0%	11.5	20.0	B
	Subtotal	3,112	1,315	42.2%	59.4	2.9	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,917	2,087	53.3%	61.8	11.1	E

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	183	150	82.2%	8.1	2.0	A
	Through	304	274	90.3%	10.3	1.7	B
	Right Turn						
	Subtotal	487	425	87.2%	9.5	1.4	A
EB	Left Turn						
	Through	1,684	1,001	59.4%	28.8	1.5	C
	Right Turn	257	154	59.8%	15.0	2.1	B
	Subtotal	1,941	1,154	59.5%	26.9	1.5	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,428	1,579	65.0%	22.3	1.2	C

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	42	99.0%	26.6	4.3	C
	Through	65	72	111.4%	13.2	3.4	B
	Right Turn	16	12	77.5%	2.2	2.6	A
	Subtotal	123	126	102.8%	16.7	2.7	B
SB	Left Turn	80	88	109.5%	23.4	3.1	C
	Through	132	136	103.3%	12.1	3.1	B
	Right Turn	6	8	133.3%	1.3	0.8	A
	Subtotal	218	232	106.4%	16.1	1.5	B
EB	Left Turn	7	6	91.4%	45.6	22.1	D
	Through	266	282	106.2%	14.5	2.0	B
	Right Turn	85	82	96.5%	6.4	1.9	A
	Subtotal	358	371	103.6%	13.2	1.9	B
WB	Left Turn	50	39	77.6%	26.2	6.7	C
	Through	144	114	79.4%	19.0	4.4	B
	Right Turn	26	23	87.7%	3.2	0.9	A
	Subtotal	220	176	80.0%	18.2	2.8	B
Total		919	905	98.5%	15.4	1.0	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	97.5%	18.9	4.8	B
	Through	1	2	240.0%	10.1	12.0	B
	Right Turn	38	40	104.2%	4.6	0.8	A
	Subtotal	55	58	104.7%	8.8	2.3	A
SB	Left Turn	8	7	90.0%	12.2	11.0	B
	Through	5	2	40.0%	6.3	13.7	A
	Right Turn	3	2	53.3%	1.7	2.2	A
	Subtotal	16	11	67.5%	12.2	9.1	B
EB	Left Turn	1	1	80.0%	6.0	9.0	A
	Through	338	356	105.2%	7.6	1.6	A
	Right Turn	23	22	95.7%	5.3	2.1	A
	Subtotal	362	378	104.5%	7.5	1.6	A
WB	Left Turn	133	96	72.2%	13.8	1.8	B
	Through	201	162	80.6%	4.1	1.4	A
	Right Turn	3	4	133.3%	3.4	3.3	A
	Subtotal	337	262	77.7%	7.7	1.2	A
Total		770	709	92.1%	7.8	1.2	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	754	354	47.0%	20.3	3.3	C
	Right Turn	75	45	59.7%	13.6	3.6	B
	Subtotal	829	399	48.2%	19.5	3.2	B
SB	Left Turn	185	151	81.7%	122.9	36.6	F
	Through	557	433	77.7%	95.0	29.2	F
	Right Turn						
	Subtotal	742	584	78.7%	102.6	31.1	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	167	140	84.1%	5.6	0.7	A
	Through						
	Right Turn	126	98	77.8%	3.4	0.9	A
	Subtotal	293	238	81.4%	4.7	0.6	A
Total		1,864	1,222	65.5%	55.4	12.7	E

Intersection 65 **6th St/G St** **0**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	33	16	48.5%	16.3	8.8	C
	Through	421	197	46.7%	10.1	1.5	B
	Right Turn	92	48	51.7%	5.8	2.3	A
	Subtotal	546	260	47.7%	9.9	1.1	A
SB	Left Turn	159	154	97.1%	34.4	8.6	D
	Through	335	334	99.8%	28.4	3.2	D
	Right Turn	51	46	91.0%	25.0	7.9	D
	Subtotal	545	535	98.2%	29.9	4.3	D
EB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	219	166	75.6%	2.1	0.6	A
	Right Turn	40	28	70.0%	1.4	0.8	A
	Subtotal	260	194	74.5%	2.0	0.6	A
WB	Left Turn	28	27	95.7%	15.3	2.5	C
	Through	209	178	85.0%	14.7	3.2	B
	Right Turn	414	363	87.7%	11.4	2.6	B
	Subtotal	651	568	87.2%	12.6	2.6	B
Total		2,002	1,557	77.8%	16.7	2.3	C

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	79.2%	36.7	25.1	D
	Through	181	165	91.4%	34.2	4.8	C
	Right Turn	233	210	90.2%	13.7	2.0	B
	Subtotal	426	385	90.4%	23.0	2.8	C
SB	Left Turn	70	58	83.0%	7.4	3.3	A
	Through	139	125	89.9%	18.8	4.3	B
	Right Turn	17	15	89.0%	9.1	11.6	A
	Subtotal	226	198	87.7%	14.8	3.8	B
EB	Left Turn	46	36	78.1%	95.8	15.3	F
	Through	893	780	87.3%	67.3	14.5	E
	Right Turn	7	8	120.7%	65.4	29.6	E
	Subtotal	946	824	87.1%	68.7	13.9	E
WB	Left Turn	39	34	87.5%	53.6	15.9	D
	Through	133	116	87.3%	31.1	8.6	C
	Right Turn	42	36	85.5%	5.8	1.7	A
	Subtotal	214	186	87.0%	30.1	6.5	C
Total		1,812	1,594	87.9%	46.4	6.9	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	70.4%	18.4	27.3	B
	Through	49	48	98.4%	32.5	9.0	C
	Right Turn	35	30	86.5%	9.6	4.4	A
	Subtotal	86	80	92.9%	23.9	4.8	C
SB	Left Turn	75	64	84.9%	26.3	2.7	C
	Through	11	7	67.2%	26.5	20.5	C
	Right Turn	23	19	82.6%	3.6	0.7	A
	Subtotal	109	90	82.7%	21.6	3.3	C
EB	Left Turn	257	219	85.2%	42.6	10.0	D
	Through	938	827	88.2%	18.1	5.9	B
	Right Turn	1	1	140.8%	5.1	10.6	A
	Subtotal	1,196	1,048	87.6%	23.2	6.3	C
WB	Left Turn	14	11	80.5%	28.8	21.2	C
	Through	189	171	90.3%	19.3	3.7	B
	Right Turn	182	156	85.9%	12.0	3.4	B
	Subtotal	385	338	87.9%	16.3	3.3	B
Total		1,776	1,556	87.6%	21.6	4.7	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	6	120.0%	6.0	4.6	A
	Through	2,106	2,109	100.2%	11.0	0.8	B
	Right Turn	34	38	110.6%	9.4	2.4	A
	Subtotal	2,145	2,153	100.4%	10.9	0.8	B
EB	Left Turn						
	Through	110	105	95.6%	15.3	3.8	B
	Right Turn	14	14	102.9%	8.9	7.6	A
	Subtotal	124	120	96.5%	14.9	3.5	B
WB	Left Turn	22	17	78.2%	17.7	9.4	B
	Through	102	103	101.2%	13.0	2.8	B
	Right Turn						
	Subtotal	124	120	97.1%	13.7	2.4	B
Total		2,393	2,393	100.0%	11.2	0.7	B

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	323	291	90.0%	14.2	1.9	B
	Through	1,874	1,891	100.9%	14.0	0.8	B
	Right Turn	5	4	80.0%	7.3	7.3	A
	Subtotal	2,202	2,186	99.3%	14.0	0.7	B
EB	Left Turn						
	Through	116	126	109.0%	13.2	2.8	B
	Right Turn	67	70	104.5%	11.9	3.1	B
	Subtotal	183	196	107.3%	12.6	2.1	B
WB	Left Turn	4	6	140.0%	11.8	12.0	B
	Through	317	324	102.1%	16.9	2.1	B
	Right Turn						
	Subtotal	321	329	102.6%	16.9	2.0	B
Total		2,706	2,711	100.2%	14.3	0.5	B

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	100.0%	36.6	14.2	D
	Through	61	59	97.0%	16.8	2.9	B
	Right Turn	5	4	72.0%	10.9	10.2	B
	Subtotal	70	67	95.4%	18.1	3.5	B
SB	Left Turn	11	10	90.9%	68.2	39.7	E
	Through	551	510	92.6%	57.5	22.5	E
	Right Turn	138	123	89.3%	55.5	21.6	E
	Subtotal	700	643	91.9%	57.3	22.3	E
EB	Left Turn	23	16	67.8%	32.9	13.9	C
	Through	10	6	56.0%	5.0	7.6	A
	Right Turn	38	38	98.9%	9.5	3.7	A
	Subtotal	71	59	82.8%	16.6	2.9	B
WB	Left Turn	45	37	81.8%	23.1	3.3	C
	Through	160	118	74.0%	15.8	4.5	B
	Right Turn	27	18	66.7%	12.8	18.0	B
	Subtotal	232	173	74.7%	16.7	3.5	B
Total		1,073	942	87.8%	44.6	15.8	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	45	44	96.9%	58.0	10.8	E
	Through	138	133	96.2%	34.8	6.1	C
	Right Turn	19	16	84.2%	36.5	16.6	D
	Subtotal	202	192	95.2%	40.2	5.1	D
SB	Left Turn	15	17	114.7%	37.3	12.5	D
	Through	158	156	99.0%	39.7	8.5	D
	Right Turn	9	7	80.0%	22.4	23.2	C
	Subtotal	182	181	99.3%	39.0	7.6	D
EB	Left Turn						
	Through	251	204	81.3%	35.9	5.3	D
	Right Turn	31	23	74.8%	22.1	9.0	C
	Subtotal	282	227	80.6%	34.5	4.6	C
SW	Left Turn	8	6	80.0%	43.9	20.7	D
	Through	2,439	1,844	75.6%	48.1	6.3	D
	Right Turn	162	114	70.4%	60.0	9.8	E
	Subtotal	2,609	1,965	75.3%	48.8	6.5	D
Total		3,275	2,565	78.3%	46.2	5.4	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	151	143	94.6%	15.0	2.6	B
	Through	986	952	96.6%	10.7	0.7	B
	Right Turn	6	6	100.0%	7.1	7.0	A
	Subtotal	1,143	1,101	96.3%	11.2	0.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	200	161	80.6%	20.0	2.0	C
	Through	6	3	46.7%	12.7	7.8	B
	Right Turn						
	Subtotal	206	164	79.6%	20.0	1.9	B
WB	Left Turn						
	Through	6	7	113.3%	10.4	10.3	B
	Right Turn	2	3	140.0%	3.8	9.0	A
	Subtotal	8	10	120.0%	10.9	10.3	B
Total		1,357	1,274	93.9%	12.4	0.8	B

Intersection 38 **5th St/Bannon St-N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	73	61	83.3%	6.2	2.4	A
	Through						
	Right Turn	5	5	96.0%	1.9	2.1	A
	Subtotal	78	66	84.1%	6.0	2.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	64	56	87.5%	6.0	1.6	A
	Right Turn	236	226	95.9%	5.7	0.8	A
	Subtotal	300	282	94.1%	5.8	0.8	A
WB	Left Turn	4	4	100.0%	7.6	4.2	A
	Through	111	86	77.8%	5.9	1.7	A
	Right Turn						
	Subtotal	115	90	78.6%	6.0	1.6	A
Total		493	438	88.9%	5.9	0.8	A

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	22	77.1%	8.8	4.2	A
	Through						
	Right Turn	24	22	91.7%	4.6	1.3	A
	Subtotal	52	44	83.8%	6.6	2.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	47	38	80.9%	13.7	3.0	B
	Right Turn	22	24	107.3%	6.3	3.7	A
	Subtotal	69	62	89.3%	10.9	2.8	B
WB	Left Turn	215	175	81.5%	18.3	2.4	B
	Through	87	68	77.7%	6.9	1.2	A
	Right Turn						
	Subtotal	302	243	80.4%	15.0	1.6	B
Total		423	348	82.3%	13.3	1.2	B

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	3.3	3.4	A
	Through						
	Right Turn	206	180	87.6%	4.3	0.7	A
	Subtotal	211	184	87.2%	4.3	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	21	14	68.6%	4.2	2.4	A
	Right Turn	5	5	96.0%	1.9	1.6	A
	Subtotal	26	19	73.8%	3.8	2.2	A
WB	Left Turn	76	64	83.7%	10.5	2.0	B
	Through	227	173	76.3%	7.5	1.1	A
	Right Turn						
	Subtotal	303	237	78.2%	8.3	1.1	A
Total		540	440	81.5%	6.5	0.8	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	10.0	12.9	B
	Through	139	124	88.9%	11.9	2.6	B
	Right Turn	130	98	75.7%	6.6	1.8	A
	Subtotal	274	224	81.8%	9.6	1.9	A
SB	Left Turn	77	71	91.9%	16.2	2.5	B
	Through	117	113	96.8%	10.5	3.1	B
	Right Turn	36	37	103.3%	6.4	2.5	A
	Subtotal	230	221	96.2%	11.7	2.0	B
EB	Left Turn	131	112	85.5%	23.6	4.2	C
	Through	75	61	81.6%	6.9	1.8	A
	Right Turn	5	4	72.0%	1.8	1.5	A
	Subtotal	211	177	83.8%	17.5	3.0	B
WB	Left Turn	4	1	30.0%	9.2	16.2	A
	Through	277	221	79.9%	12.3	2.5	B
	Right Turn	18	11	60.0%	7.2	5.8	A
	Subtotal	299	233	78.0%	12.2	2.5	B
Total		1,014	855	84.3%	12.5	1.2	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	305	262	86.0%	6.2	0.9	A
	Right Turn	76	70	92.6%	4.6	1.9	A
	Subtotal	381	333	87.3%	5.9	1.0	A
SB	Left Turn	294	273	92.8%	18.4	2.4	B
	Through	485	491	101.3%	12.7	1.4	B
	Right Turn						
	Subtotal	779	764	98.1%	14.8	1.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	11	13	116.4%	21.4	8.0	C
	Through						
	Right Turn	74	67	90.8%	8.4	1.6	A
	Subtotal	85	80	94.1%	10.8	2.3	B
Total		1,245	1,177	94.5%	12.0	1.1	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	319	266	83.3%	52.4	18.4	D
	Through	33	24	73.9%	25.7	11.7	C
	Right Turn	14	10	68.6%	19.4	20.4	B
	Subtotal	366	300	81.9%	49.3	18.1	D
SB	Left Turn	54	48	88.1%	35.2	7.3	D
	Through	163	160	97.9%	23.6	4.5	C
	Right Turn	23	27	116.5%	17.7	8.3	B
	Subtotal	240	234	97.5%	25.2	4.2	C
EB	Left Turn	11	8	72.7%	33.9	12.6	C
	Through	47	48	101.3%	28.2	5.7	C
	Right Turn	92	90	98.3%	16.1	2.7	B
	Subtotal	150	146	97.3%	21.0	3.3	C
WB	Left Turn	39	29	73.8%	30.0	7.9	C
	Through	208	194	93.1%	27.2	6.0	C
	Right Turn	34	36	104.7%	19.3	8.0	B
	Subtotal	281	258	91.8%	26.3	5.3	C
Total		1,037	938	90.4%	32.6	6.7	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	22	90.0%	6.8	1.7	A
	Through	5	2	40.0%	3.1	3.2	A
	Right Turn	28	20	72.9%	3.9	2.1	A
	Subtotal	57	44	77.2%	5.5	1.3	A
SB	Left Turn	18	18	100.0%	6.2	2.1	A
	Through	5	4	72.0%	4.1	5.3	A
	Right Turn	23	24	106.1%	5.8	2.8	A
	Subtotal	46	46	100.0%	6.4	1.8	A
EB	Left Turn	21	22	106.7%	4.1	1.3	A
	Through	74	64	87.0%	1.7	0.3	A
	Right Turn	20	16	82.0%	1.7	0.8	A
	Subtotal	115	103	89.7%	2.2	0.4	A
WB	Left Turn	25	20	78.4%	3.9	0.8	A
	Through	234	223	95.2%	2.2	0.3	A
	Right Turn	5	6	112.0%	0.9	0.9	A
	Subtotal	264	248	93.9%	2.3	0.3	A
Total		482	441	91.5%	3.0	0.3	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	13	88.0%	7.2	3.2	A
	Through	42	36	84.8%	10.1	2.3	B
	Right Turn	1	1	80.0%	0.7	1.5	A
	Subtotal	58	50	85.5%	9.7	2.1	A
SB	Left Turn	5	5	96.0%	8.7	5.0	A
	Through	160	124	77.8%	13.9	2.4	B
	Right Turn	72	62	86.1%	9.5	2.2	A
	Subtotal	237	191	80.7%	12.4	2.5	B
EB	Left Turn	5	3	64.0%	5.5	5.0	A
	Through	79	68	86.1%	11.6	2.0	B
	Right Turn	36	31	86.7%	8.7	1.4	A
	Subtotal	120	102	85.3%	10.5	1.4	B
WB	Left Turn	323	281	87.1%	15.3	5.8	C
	Through	177	171	96.5%	16.2	4.5	C
	Right Turn	5	4	88.0%	9.9	9.9	A
	Subtotal	505	456	90.4%	15.6	5.1	C
Total		920	800	86.9%	13.9	3.4	B

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	59	53	89.5%	13.0	3.6	B
	Through	95	94	98.5%	2.5	1.0	A
	Right Turn						
	Subtotal	154	146	95.1%	6.1	1.7	A
SB	Left Turn						
	Through	214	202	94.4%	3.7	0.5	A
	Right Turn	446	415	93.1%	4.5	0.5	A
	Subtotal	660	617	93.5%	4.2	0.3	A
EB	Left Turn	51	41	80.8%	8.3	1.2	A
	Through						
	Right Turn	34	30	88.2%	5.9	0.4	A
	Subtotal	85	71	83.8%	7.3	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		899	835	92.9%	4.8	0.4	A

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	799	784	98.1%	15.3	5.4	B
	Right Turn						
	Subtotal	799	784	98.1%	15.3	5.4	B
WB	Left Turn						
	Through	51	47	92.5%	0.6	0.3	A
	Right Turn						
	Subtotal	51	47	92.5%	0.6	0.3	A
Total		850	831	97.8%	14.5	5.1	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	6	60.0%	19.6	18.6	B
	Through	124	112	90.6%	22.4	4.6	C
	Right Turn	5	5	104.0%	15.7	11.1	B
	Subtotal	139	124	88.9%	22.5	4.1	C
SB	Left Turn	122	124	101.3%	43.7	9.9	D
	Through	145	150	103.4%	17.4	2.9	B
	Right Turn	25	26	102.4%	11.8	3.6	B
	Subtotal	292	299	102.5%	28.0	5.0	C
EB	Left Turn	30	28	94.7%	70.5	15.4	E
	Through	632	615	97.3%	36.2	8.2	D
	Right Turn	137	138	101.0%	31.8	8.5	C
	Subtotal	799	782	97.9%	36.6	8.1	D
WB	Left Turn	5	3	64.0%	28.7	26.9	C
	Through	16	15	95.0%	9.9	7.6	A
	Right Turn	189	160	84.9%	6.3	1.3	A
	Subtotal	210	179	85.1%	7.3	1.9	A
Total		1,440	1,384	96.1%	29.8	5.8	C

Intersection 49 **PH Garage Entry/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	43	83.9%	12.0	2.6	B
	Through	2	0	20.0%	0.9	1.9	A
	Right Turn	47	46	97.0%	7.5	2.1	A
	Subtotal	100	89	88.8%	9.7	1.7	A
SB	Left Turn	103	103	99.8%	12.8	2.8	B
	Through	3	2	53.3%	10.0	17.4	B
	Right Turn	27	27	99.3%	10.1	4.9	B
	Subtotal	133	131	98.6%	12.2	2.7	B
EB	Left Turn	21	22	106.7%	18.5	5.4	B
	Through	458	439	95.9%	14.7	2.2	B
	Right Turn	169	143	84.7%	11.7	2.4	B
	Subtotal	648	605	93.3%	14.1	2.1	B
WB	Left Turn	118	96	81.0%	24.8	6.4	C
	Through	187	160	85.3%	9.6	2.4	A
	Right Turn	227	215	94.8%	6.8	1.9	A
	Subtotal	532	470	88.4%	11.3	2.5	B
Total		1,413	1,295	91.7%	12.6	1.8	B

Intersection 50 **HSB Entry-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	12	103.3%	11.0	8.2	B
	Through	5	6	112.0%	5.1	6.2	A
	Right Turn	9	10	106.7%	4.3	2.8	A
	Subtotal	26	28	106.2%	7.6	3.2	A
SB	Left Turn	20	17	84.0%	10.8	3.2	B
	Through	5	4	80.0%	10.8	7.7	B
	Right Turn	10	6	64.0%	2.0	2.1	A
	Subtotal	35	27	77.7%	9.8	3.1	A
EB	Left Turn	10	9	88.0%	16.2	9.2	B
	Through	583	559	95.8%	10.4	1.9	B
	Right Turn	15	18	120.0%	8.5	4.3	A
	Subtotal	608	586	96.3%	10.4	1.9	B
WB	Left Turn	18	16	88.9%	20.8	9.3	C
	Through	510	459	90.0%	10.8	1.0	B
	Right Turn	20	15	76.0%	8.2	2.2	A
	Subtotal	548	490	89.4%	11.1	1.0	B
Total		1,217	1,130	92.9%	10.6	1.2	B

Intersection 51 **5th St-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	90	93.3%	68.5	14.6	E
	Through	190	167	88.0%	40.6	9.8	D
	Right Turn	19	15	80.0%	35.0	21.3	C
	Subtotal	305	272	89.2%	49.4	11.6	D
SB	Left Turn	59	54	91.5%	52.0	10.3	D
	Through	206	192	93.0%	37.5	8.9	D
	Right Turn	29	30	102.1%	35.2	19.4	D
	Subtotal	294	275	93.6%	40.0	8.2	D
EB	Left Turn	20	19	94.0%	57.8	10.3	E
	Through	287	282	98.1%	14.6	3.0	B
	Right Turn	167	150	89.8%	10.3	2.5	B
	Subtotal	474	450	95.0%	15.0	2.8	B
WB	Left Turn	32	29	90.0%	45.5	8.0	D
	Through	502	444	88.5%	13.7	3.2	B
	Right Turn	156	132	84.9%	11.9	2.2	B
	Subtotal	690	606	87.8%	14.7	2.5	B
Total		1,763	1,603	90.9%	25.2	2.4	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	19	14	75.8%	11.9	15.8	B
	Subtotal	19	14	75.8%	11.9	15.8	B
EB	Left Turn						
	Through	365	352	96.3%	1.6	1.3	A
	Right Turn						
	Subtotal	365	352	96.3%	1.6	1.3	A
WB	Left Turn						
	Through	671	601	89.5%	2.2	0.8	A
	Right Turn	64	52	81.3%	1.0	0.4	A
	Subtotal	735	653	88.8%	2.1	0.7	A
Total		1,119	1,019	91.0%	2.1	0.7	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	18	108.2%	37.2	26.1	D
	Through	36	30	84.4%	22.9	12.7	C
	Right Turn	187	163	87.3%	4.6	1.3	A
	Subtotal	240	212	88.3%	10.2	4.2	B
SB	Left Turn	27	18	68.1%	24.4	7.6	C
	Through	303	246	81.1%	23.9	3.8	C
	Right Turn	189	162	85.9%	21.1	3.7	C
	Subtotal	519	426	82.2%	22.9	3.4	C
EB	Left Turn	8	5	65.0%	38.4	28.5	D
	Through	334	324	96.9%	24.0	7.6	C
	Right Turn	23	18	80.0%	15.7	12.1	B
	Subtotal	365	347	95.1%	24.0	7.3	C
WB	Left Turn	245	201	82.0%	20.5	4.2	C
	Through	529	481	91.0%	9.6	1.7	A
	Right Turn	14	14	100.0%	5.4	3.4	A
	Subtotal	788	696	88.3%	12.6	1.6	B
Total		1,912	1,682	87.9%	17.4	2.6	B

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	292	279	95.6%	52.0	18.0	D
	Through	61	63	103.0%	33.6	8.9	C
	Right Turn	189	177	93.5%	26.1	9.3	C
	Subtotal	542	519	95.7%	41.3	14.0	D
SB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	201	186	92.5%	29.1	2.6	C
	Right Turn	46	41	88.7%	14.0	3.8	B
	Subtotal	248	227	91.5%	26.5	2.4	C
EB	Left Turn	92	83	90.0%	28.6	3.5	C
	Through	298	265	88.9%	28.0	6.6	C
	Right Turn	158	147	93.2%	7.0	1.9	A
	Subtotal	548	495	90.3%	22.0	4.0	C
WB	Left Turn	283	255	90.2%	67.1	23.9	E
	Through	450	394	87.6%	71.1	21.0	E
	Right Turn	1	1	80.0%	26.4	24.8	C
	Subtotal	734	650	88.6%	70.1	21.1	E
Total		2,072	1,890	91.2%	44.5	10.3	D

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	4	72.0%	16.7	34.3	C
	Through						
	Right Turn	1	1	120.0%	3.8	6.5	A
	Subtotal	6	5	80.0%	11.8	20.7	B
EB	Left Turn	205	186	90.5%	21.0	8.3	C
	Through	283	246	87.1%	3.6	0.9	A
	Right Turn						
	Subtotal	488	432	88.5%	11.1	4.1	B
WB	Left Turn						
	Through	733	684	93.3%	44.6	17.6	E
	Right Turn	5	2	48.0%	34.7	9.5	D
	Subtotal	738	686	93.0%	44.5	17.5	E
Total		1,232	1,123	91.2%	31.7	12.5	D

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	121	107	88.3%	13.6	2.1	B
	Subtotal	121	107	88.3%	13.6	2.1	B
EB	Left Turn	269	222	82.7%	24.9	4.0	C
	Through						
	Right Turn						
	Subtotal	269	222	82.7%	24.9	4.0	C
WB	Left Turn						
	Through	679	653	96.2%	28.3	4.8	C
	Right Turn						
	Subtotal	679	653	96.2%	28.3	4.8	C
Total		1,069	982	91.9%	26.0	3.7	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	3.8	3.7	A
	Through	70	62	89.1%	9.0	1.6	A
	Right Turn	86	76	88.4%	4.7	1.6	A
	Subtotal	161	142	88.4%	6.6	1.4	A
SB	Left Turn	38	33	87.4%	8.9	2.5	A
	Through	171	176	103.2%	11.6	1.6	B
	Right Turn	78	79	101.0%	8.6	1.9	A
	Subtotal	287	288	100.5%	10.5	1.7	B
EB	Left Turn	44	39	88.2%	9.1	1.6	A
	Through	60	67	111.3%	9.5	1.8	A
	Right Turn	5	6	112.0%	5.4	4.9	A
	Subtotal	109	111	102.0%	9.4	1.3	A
WB	Left Turn	194	165	85.2%	8.6	1.7	A
	Through	58	52	89.0%	10.1	3.6	B
	Right Turn	25	22	89.6%	7.0	1.7	A
	Subtotal	277	239	86.4%	8.8	1.8	A
Total		834	781	93.7%	9.1	1.2	A

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	171	142	82.8%	16.5	2.0	C
	Through						
	Right Turn	62	50	81.3%	14.0	4.2	B
	Subtotal	233	192	82.4%	15.7	2.5	C
EB	Left Turn	32	27	83.8%	4.6	0.6	A
	Through	152	148	97.6%	1.9	0.4	A
	Right Turn						
	Subtotal	184	175	95.2%	2.3	0.4	A
WB	Left Turn						
	Through	215	184	85.6%	0.9	0.4	A
	Right Turn	52	48	93.1%	0.4	0.5	A
	Subtotal	267	232	87.0%	0.8	0.3	A
Total		684	600	87.7%	6.0	1.0	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	1	24.0%	1.2	2.6	A
	Through	5	4	80.0%	5.4	4.7	A
	Right Turn	46	45	97.4%	4.4	1.1	A
	Subtotal	56	50	89.3%	4.6	1.0	A
SB	Left Turn	5	4	72.0%	10.5	6.6	B
	Through	16	14	90.0%	12.0	0.7	B
	Right Turn	5	6	128.0%	8.6	2.2	A
	Subtotal	26	24	93.8%	11.6	1.4	B
EB	Left Turn	8	6	80.0%	6.1	2.6	A
	Through	242	215	88.8%	8.8	1.4	A
	Right Turn	73	66	90.4%	5.8	1.3	A
	Subtotal	323	287	88.9%	8.0	1.3	A
WB	Left Turn	95	85	89.7%	15.5	3.1	C
	Through	434	391	90.1%	17.2	2.9	C
	Right Turn	10	12	116.0%	9.8	4.9	A
	Subtotal	539	488	90.5%	16.7	2.7	C
Total		944	850	90.0%	12.9	1.6	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	183	184	100.8%	30.8	5.9	C
	Through	312	282	90.5%	26.3	6.5	C
	Right Turn	92	93	100.9%	18.4	6.2	B
	Subtotal	587	560	95.3%	26.5	5.6	C
SB	Left Turn	183	165	90.1%	33.5	5.3	C
	Through	284	249	87.7%	22.1	2.2	C
	Right Turn	5	4	72.0%	6.6	7.2	A
	Subtotal	472	418	88.5%	26.5	2.8	C
EB	Left Turn	5	2	40.0%	14.2	23.4	B
	Through	132	118	89.4%	21.6	4.3	C
	Right Turn	156	145	92.8%	14.2	3.1	B
	Subtotal	293	265	90.4%	17.7	3.5	B
WB	Left Turn	19	12	65.3%	46.4	21.4	D
	Through	351	310	88.4%	25.9	4.5	C
	Right Turn	151	126	83.2%	21.0	3.1	C
	Subtotal	521	448	86.1%	25.1	4.0	C
Total		1,873	1,690	90.3%	24.8	2.4	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	336	298	88.8%	66.1	20.1	E
	Through	119	116	97.1%	45.3	16.6	D
	Right Turn						
	Subtotal	455	414	91.0%	60.2	18.5	E
SB	Left Turn						
	Through	391	312	79.9%	13.6	3.1	B
	Right Turn	180	144	79.8%	10.2	2.3	B
	Subtotal	571	456	79.9%	12.5	2.5	B
EB	Left Turn	121	100	82.6%	23.5	4.9	C
	Through						
	Right Turn	224	199	88.8%	16.7	10.2	B
	Subtotal	345	299	86.6%	19.2	7.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,371	1,169	85.3%	30.7	6.9	C

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	183	186	101.9%	78.7	39.0	E
	Through	501	479	95.6%	51.5	33.7	D
	Right Turn	171	160	93.3%	49.4	39.1	D
	Subtotal	855	825	96.5%	57.3	35.8	E
SB	Left Turn	6	4	73.3%	36.2	37.5	D
	Through	418	361	86.3%	16.0	2.3	B
	Right Turn	35	37	105.1%	11.3	5.3	B
	Subtotal	459	402	87.6%	15.9	2.5	B
EB	Left Turn	38	42	109.5%	28.4	9.5	C
	Through	79	81	102.8%	26.7	5.6	C
	Right Turn	159	161	101.1%	18.3	5.4	B
	Subtotal	276	284	102.8%	22.1	5.1	C
WB	Left Turn	163	129	79.0%	46.8	10.7	D
	Through	122	98	80.0%	48.2	7.8	D
	Right Turn	48	40	82.5%	45.1	7.1	D
	Subtotal	333	266	79.9%	47.2	8.8	D
Total		1,923	1,776	92.4%	40.7	16.2	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline Plus Railyards SP**
Volume and Delay by Movement **AM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	238	196	82.5%	65.9	31.6	F
	Through	524	509	97.1%	29.4	15.1	D
	Right Turn						
	Subtotal	762	705	92.5%	39.6	19.2	E
SB	Left Turn						
	Through	445	363	81.6%	3.6	1.1	A
	Right Turn	180	147	81.8%	6.1	3.4	A
	Subtotal	625	510	81.7%	4.2	1.5	A
EB	Left Turn						
	Through						
	Right Turn	70	61	86.9%	7.2	3.4	A
	Subtotal	70	61	86.9%	7.2	3.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,457	1,276	87.6%	23.6	10.0	C

FEHR PEERS

Sheet No 1 of 1

Project Medical Center / Stadium / Railyards SP EIR
Scenario Baseline Plus RSPU
Peak Hour AM

Major Street South Park St
Minor Street N 6th St

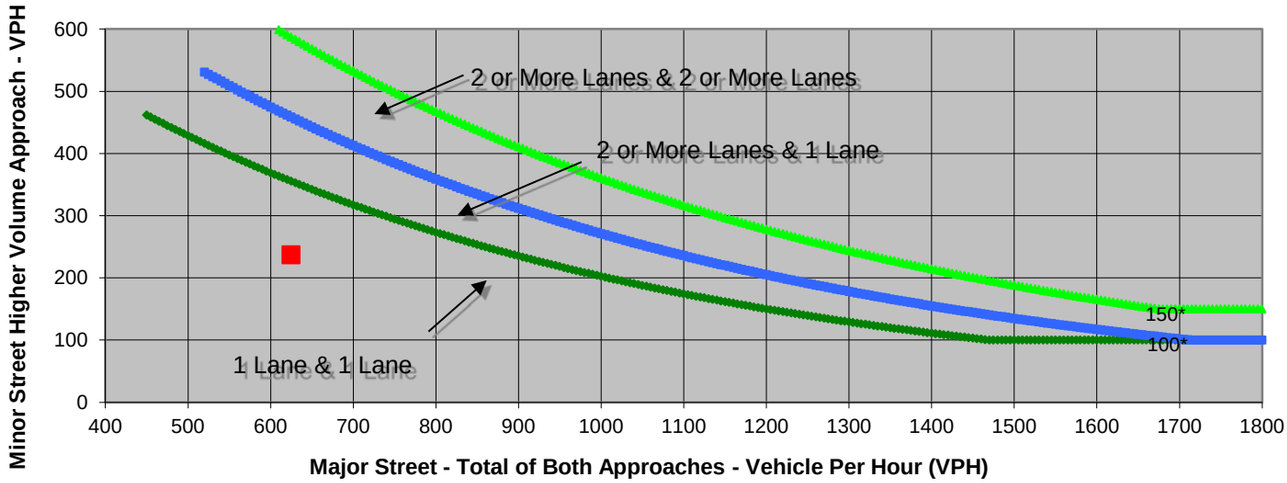
Turn Movement Volumes

	NB	SB	EB	WB
Left	15	5	5	323
Through	42	160	79	177
Right	1	72	36	5
Total	58	237	120	505

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street	Minor Street	Warrant Met
	South Park St	N 6th St	
Number of Approach Lanes	**1**	**2**	**NO**
Traffic Volume (VPH) *	**625**	**237**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	50	14	75	18	75	22	0%	0%
	Through/Right	2,725	75	17	125	41	150	49	0%	0%
SB	Left Turn	325	175	19	275	33	275	52	0%	0%
	Left/Through	5,350	275	20	375	49	400	69	1%	0%
	Right Turn	325	250	31	350	20	325	6	2%	0%
WB	Left Turn	1,275	50	12	100	20	100	27	0%	0%
	Through	275	50	11	100	16	100	20	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

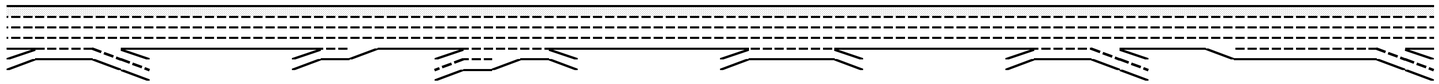
Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	50	7	100	17	100	18	0%	0%
	Through	325	75	13	125	26	125	33	0%	0%
NB	Left/Through	325	75	29	175	100	225	130	0%	0%
	Right Turn	5,000	650	344	1,150	537	1,125	498	32%	0%
WB	Through	225	50	12	100	21	100	25	0%	0%
0										

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	575	54	875	33	725	7	0%	52%
	Through	600	650	35	850	77	725	17	0%	73%
	Through/Right	600	625	59	750	30	700	18	0%	52%
NB	Right Turn	5,125	25	5	25	16	25	20	0%	0%
NE	Shared	7,725	2,375	221	4,475	354	4,800	344	0%	0%
	Right Turn	7,725	25	0	25	0	25	0	0%	0%
	Right Turn	7,725	25	0	25	0	25	0	0%	0%
	Right Turns	350	225	48	400	63	350	37	0%	0%
SB	Left Turn	7,450	25	0	25	0	25	0	0%	0%
	Left/Through	7,450	25	0	25	0	25	0	0%	0%
	Left/Through	7,450	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

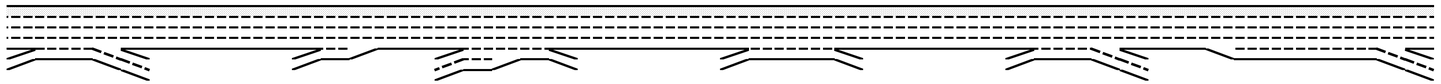
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	8,726	7,091	7,091	7,288	6,525	6,525	6,132	6,132	5,527	5,527
On Ramp Volume	339		197	401		580		369		
Off Ramp Volume	1,974			1,164		973		974		2,069
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	8,726	7,091	7,091	7,288	6,525	6,525	6,132	6,132	5,527	5,527
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	9,526	7,741	7,741	7,956	7,123	7,123	6,694	6,694	6,034	6,034
Flow (pcphpl)	2,381	1,935	1,935	1,989	1,781	1,781	1,674	1,674	1,508	1,207
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	1.01	0.82	0.82	0.85	0.76	0.76	0.71	0.71	0.64	0.51
Speed (mph)	-	60.9	60.9	60.1	62.9	62.9	63.9	63.9	64.8	65.0
Density (pcphpl)	-	31.8	31.8	33.1	28.3	28.3	26.2	26.2	23.3	18.6
LOS	F	D	D	D	D	D	D	D	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	9,961		7,997	8,376		7,824		7,130		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.85		0.85	0.71		0.67		0.61		
Flow Rate (pcphpl)	1,992		1,999	1,675		1,565		1,426		
Speed (mph)	60.0		59.9	63.9		64.6		65.0		
Density (pcphpl)	33.2		33.4	26.2		24.2		21.9		
LOS	D		D	D		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

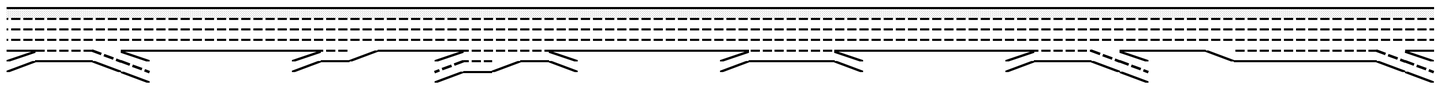
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,735			7,048		6,739		6,031		3,723
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.82			0.75		0.72		0.64		0.40
Flow Rate (pcphpl)	1,934			1,762		1,685		1,508		931
Speed (mph)	61.0			63.1		63.9		64.8		65.0
Density (pcphpl)	31.7			27.9		26.4		23.3		14.3
LOS	D			D		D		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

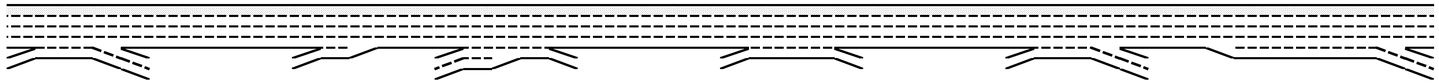
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	339		197	401		580		369		
PHF	0.79		0.78	0.97		0.84		0.86		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	436		256	420		701		436		
Flow Rate (pcphpl)	436		256	210		701		436		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.21		0.12	0.10		0.33		0.21		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

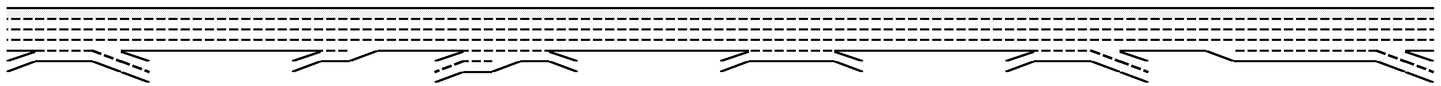
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	1,974			1,164		973		974		2,069
PHF	0.9			0.89		0.91		0.9		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	2,226			1,327		1,085		1,098		2,311
Flow Rate (pcphpl)	1,113			1,327		1,085		549		1,156
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.53			0.63		0.52		0.26		0.50
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,741							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.186							
v_{12} (pcph)			1,438							
v_3 (pcph)										
v_{34} (pcph)			6,303							
v_{12a} (pcph)			3,096							
v_{R12a} (pcph)			3,353							
Speed Index			0.39							
Area Speed			55.9							
Outer Lanes Volume			2,322							
Outer Lanes Speed			58.3							
Segment Speed			57.3							
v/c ratio			0.73							
Density			28.8							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

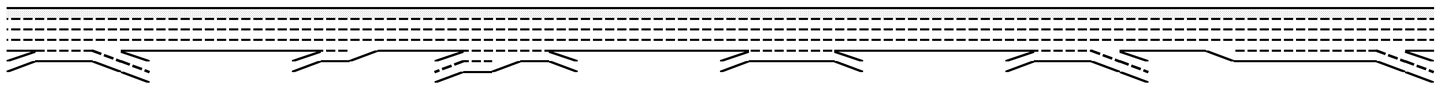
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										21.1
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

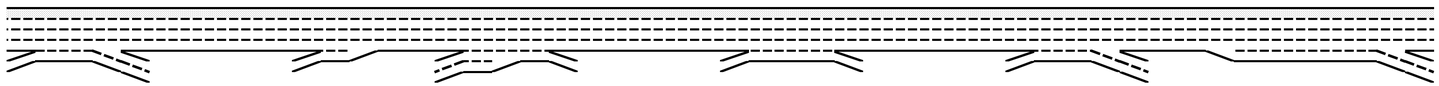
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

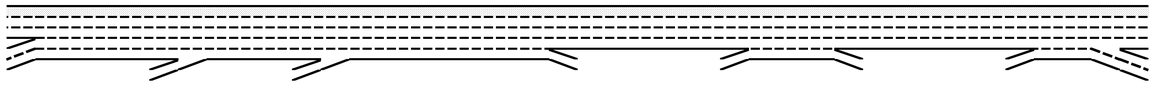
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.82	0.73		0.76		0.71		0.64	
Segment Density	-	31.8	28.8		28.3		26.2		23.3	21.1
Segment LOS	F	D	D		D		D		C	C
Over Capacity	Entering GP Lanes									
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

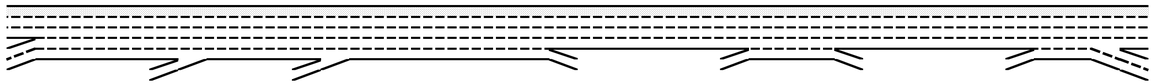
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	4,729	7,429	8,255	8,616	8,036	8,036	6,833	6,833
On Ramp Volume	2,700	826	361			700		306
Off Ramp Volume				580		1,903		1,607
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	4,729	7,429	8,255	8,616	8,036	8,036	6,833	6,833
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,162	8,110	9,012	9,406	8,773	8,773	7,459	7,459
Flow (pcphpl)	1,721	1,622	1,802	1,881	2,193	2,193	1,865	1,865
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.73	0.69	0.77	0.80	0.93	0.93	0.79	0.79
Speed (mph)	63.5	64.3	62.7	61.7	56.1	56.1	61.9	61.9
Density (pcphpl)	27.1	25.2	28.7	30.5	39.1	39.1	30.1	30.1
LOS	D	C	D	D	E	E	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	8,178	9,011	9,443			9,562		7,776
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.70	0.77	0.80			0.81		0.66
Flow Rate (pcphpl)	1,636	1,802	1,889			1,912		1,555
Speed (mph)	64.2	62.7	61.6			61.3		64.7
Density (pcphpl)	25.5	28.7	30.7			31.2		24.1
LOS	C	D	D			D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

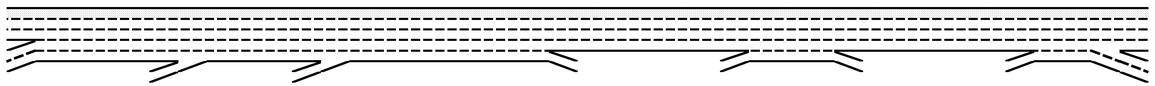
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				8,786		7,440		5,964
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.93		0.79		0.63
Flow Rate (pcphpl)				2,197		1,860		1,491
Speed (mph)				56.0		62.0		64.9
Density (pcphpl)				39.2		30.0		23.0
LOS				E		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

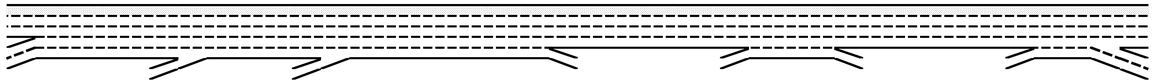
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,700	826	361			700		306
PHF	0.94	0.93	0.85			0.9		0.98
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	3,016	901	431			789		317
Flow Rate (pcphpl)	1,508	901	431			789		317
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.66	0.43	0.21			0.38		0.15

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

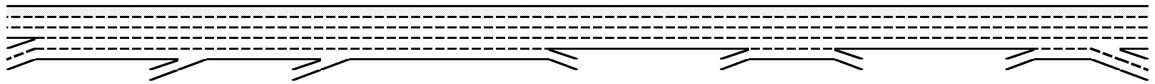
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				580		1,903		1,607
PHF				0.95		0.91		0.9
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				620		2,123		1,812
Flow Rate (pcphpl)				620		2,123		906
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.30		1.01		0.43
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		5,799	6,512					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.105	0.164					
v_{12} (pcph)		610	1,067					
v_3 (pcph)								
v_{34} (pcph)		5,189	5,444					
v_{12a} (pcph)		2,319	2,605					
v_{R12a} (pcph)		3,221	3,036					
Speed Index		0.41	0.38					
Area Speed		55.6	56.3					
Outer Lanes Volume		1,740	1,954					
Outer Lanes Speed		60.5	59.8					
Segment Speed		58.0	58.2					
v/c ratio		0.70	0.66					
Density		29.6	27.2					
LOS		D	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

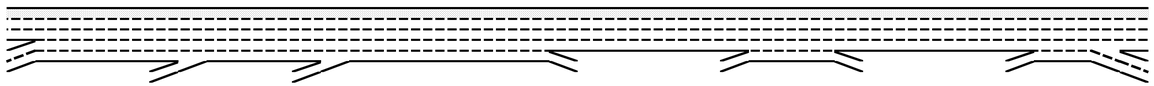
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				7,525				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.543				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				3,630				
v_3 (pcph)								
v_{34} (pcph)				3,894				
v_{12a} (pcph)				3,630				
Speed Index				0.35				
Area Speed				56.9				
Outer Lanes Volume				1,947				
Outer Lanes Speed				67.6				
Segment Speed				62.0				
v/c ratio				0.83				
Density				28.7				
LOS				D				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

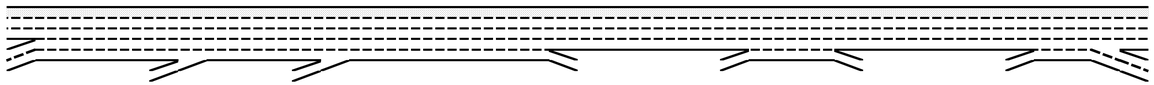
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

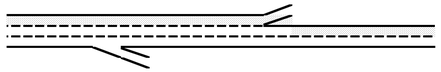
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.70	0.70	0.66	0.83	0.93		0.79	
Segment Density	25.5	29.6	27.2	28.7	39.1	-	30.1	
Segment LOS	C	D	C	D	E	F	D	
Over Capacity						Off Ramp Roadway		
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: AM Peak Hour

Location	1	2	3

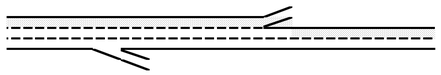


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,695	1,520	1,375
On Ramp Volume			
Off Ramp Volume	175	145	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,695	1,520	1,375
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	1,830	1,641	1,485
Flow (pcphpl)	610	547	742
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.26	0.23	0.31
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	9.4	7.8	10.6
LOS	A	A	A
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

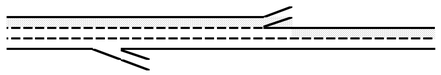


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	1,641	1,485	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.23	0.31	
Flow Rate (pcphpl)	547	742	
Speed (mph)	65.0	70.0	
Density (pcphpl)	8.4	10.6	
LOS	A	A	

Location	1	2	3



Key

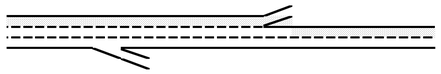
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: AM Peak Hour

Location	1	2	3

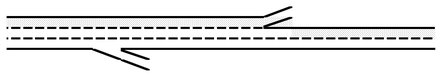


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	175	145	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	189	157	
Flow Rate (pcphpl)	189	157	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.09	0.08	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		189	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

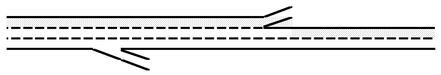


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	1,830		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.706		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.706		
v_{12} (pcph)	1,347		
v_3 (pcph)	483		
v_{34} (pcph)			
v_{12a} (pcph)	1,347		
Speed Index	0.32		
Area Speed	57.8		
Outer Lanes Volume	483		
Outer Lanes Speed	71.3		
Segment Speed	60.8		
v/c ratio	0.31		
Density	14.5		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

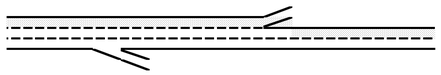


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

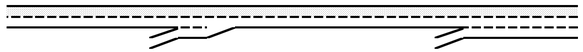
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.31	0.23	0.31
Segment Density	14.5	7.8	10.6
Segment LOS	B	A	A
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

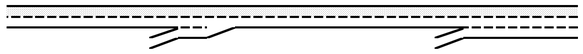


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	3,133	3,133	3,433	3,433
On Ramp Volume		300		424
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	3,133	3,133	3,433	3,433
PHF	0.88	0.88	0.88	0.88
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,614	3,614	3,960	3,960
Flow (pcphpl)	1,807	1,807	1,980	1,320
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.80	0.77	0.84	0.56
Speed (mph)	55.0	62.7	60.2	65.0
Density (pcphpl)	32.9	28.8	32.9	20.3
LOS	D	D	D	C
Operations for Segment GP Lanes				
Flow (pcph)		3,960		4,449
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.84		0.63
Flow Rate (pcphpl)		1,980		1,483
Speed (mph)		60.2		64.9
Density (pcphpl)		32.9		22.8
LOS		D		C

Location	1	2	3	4

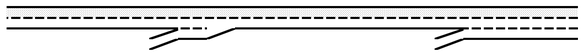


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

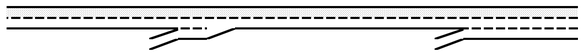


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		300		424
PHF		0.88		0.88
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		346		489
Flow Rate (pcphpl)		346		489
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.16		0.23

Location	1	2	3	4

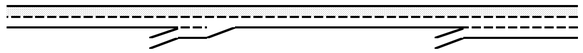


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,614		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,614		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,614		
v_{R12a} (pcph)		3,960		
Speed Index		0.46		
Area Speed		54.5		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		54.5		
v/c ratio		0.86		
Density		31.5		
LOS		D		

Location	1	2	3	4

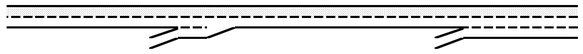


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

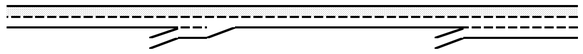


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

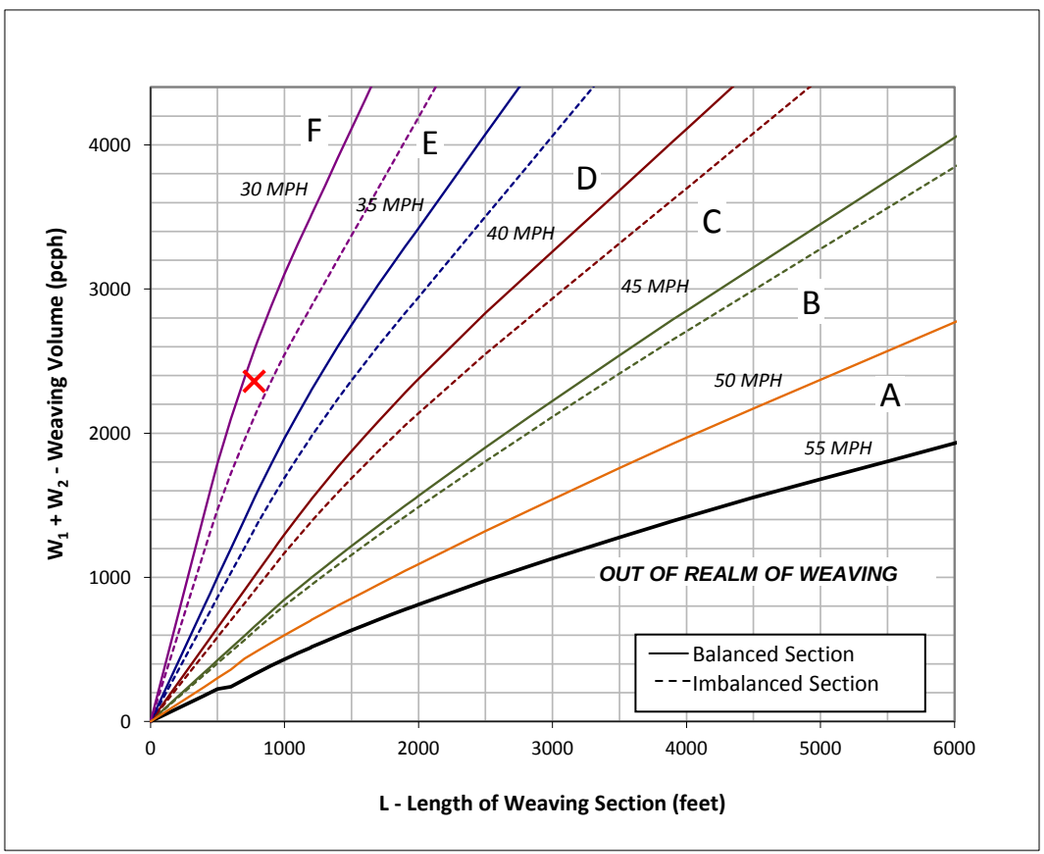
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.80	0.86	0.84	0.63
Segment Density	32.9	31.5	32.9	22.8
Segment LOS	D	D	D	C
Over Capacity				

Leisch Method for Weaving Analysis

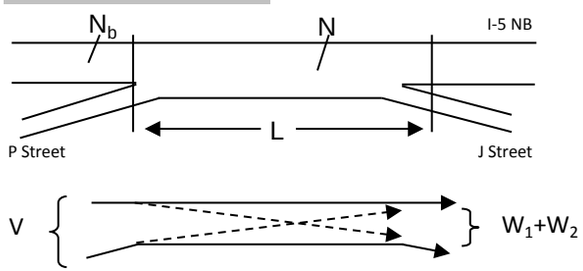
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,065	Volume (vph)*	339	Volume (vph)*	1,974
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,500	Volume (pcph)	346	Volume (pcph)	2,013



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)?	Y
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	31.1
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	2,038
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

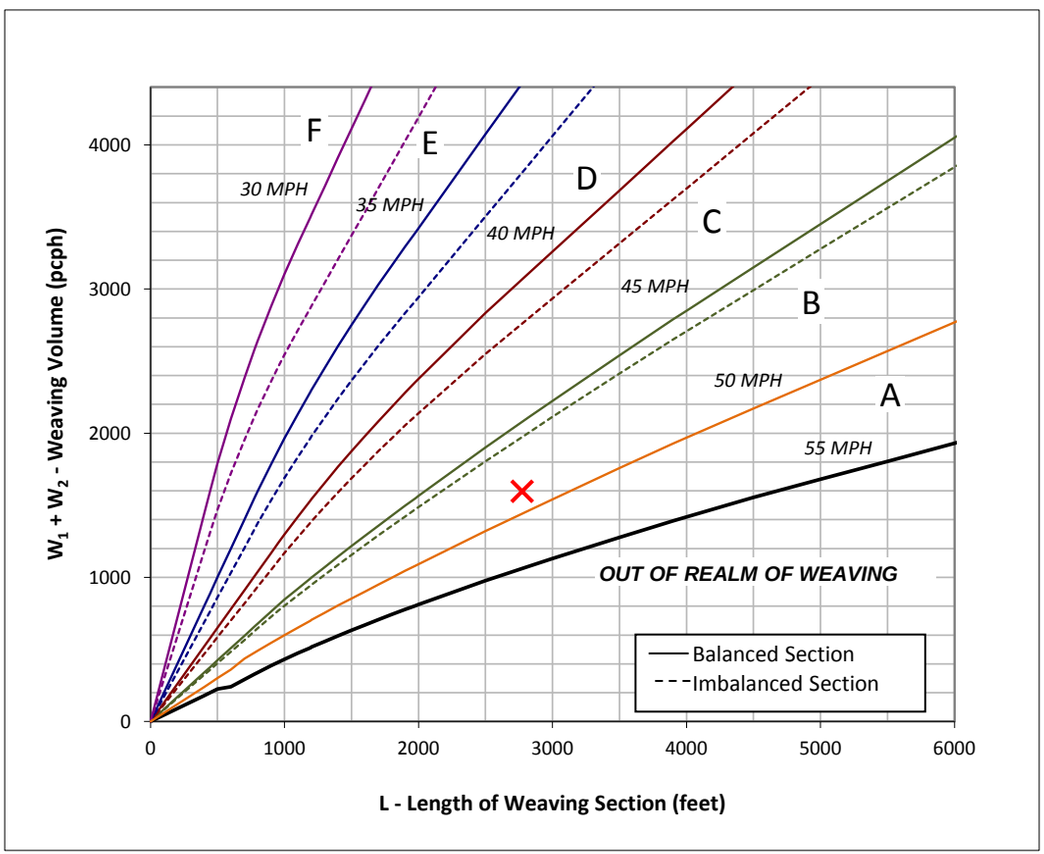
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

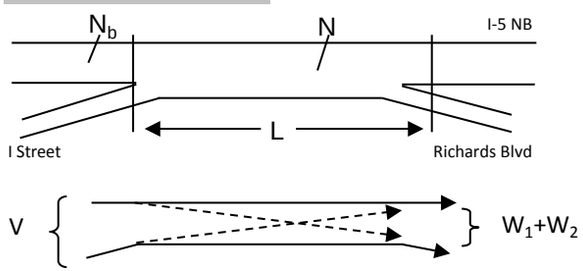
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,689	Volume (vph)*	401	Volume (vph)*	1,164
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,058	Volume (pcph)	409	Volume (pcph)	1,187



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between? **45 MPH** and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **48.6**
4. Weaving Intensity Factor (k) **1.15**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,624**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

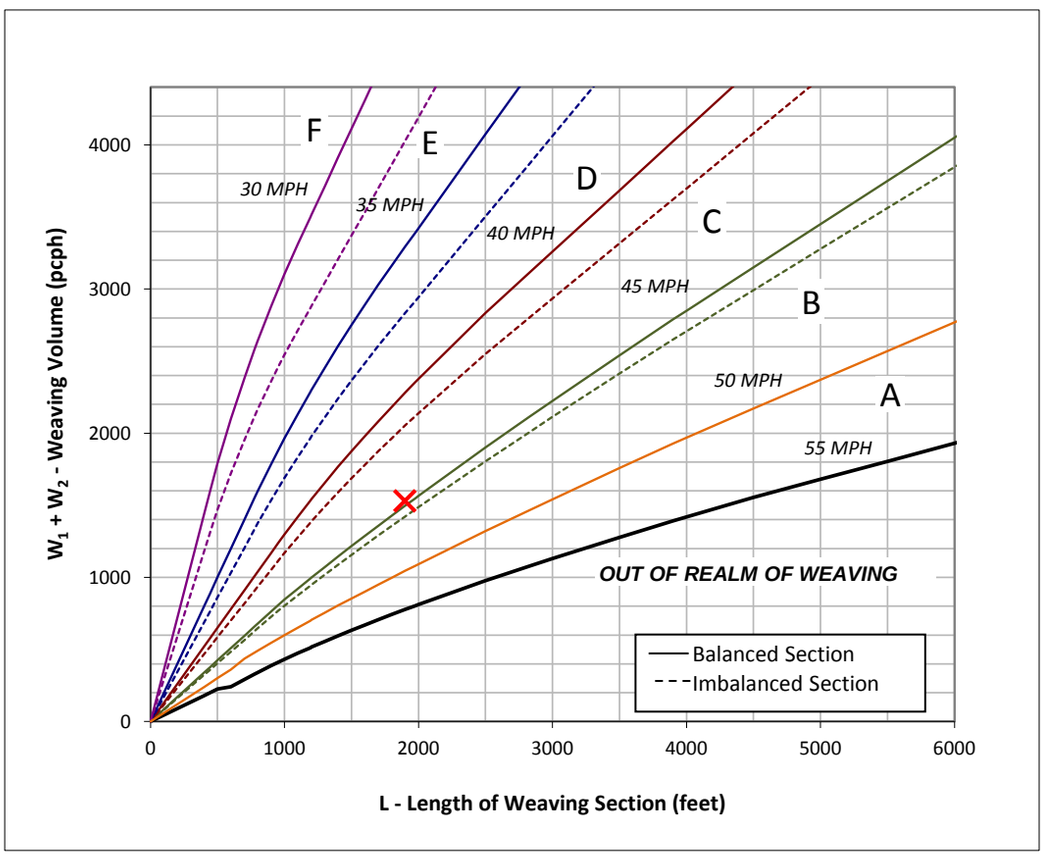
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

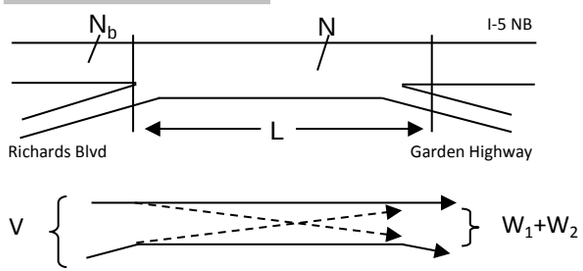
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,105	Volume (vph)*	551	Volume (vph)*	950
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,446	Volume (pcph)	562	Volume (pcph)	969



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	44.1
4. Weaving Intensity Factor (k)	2.09
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,612
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

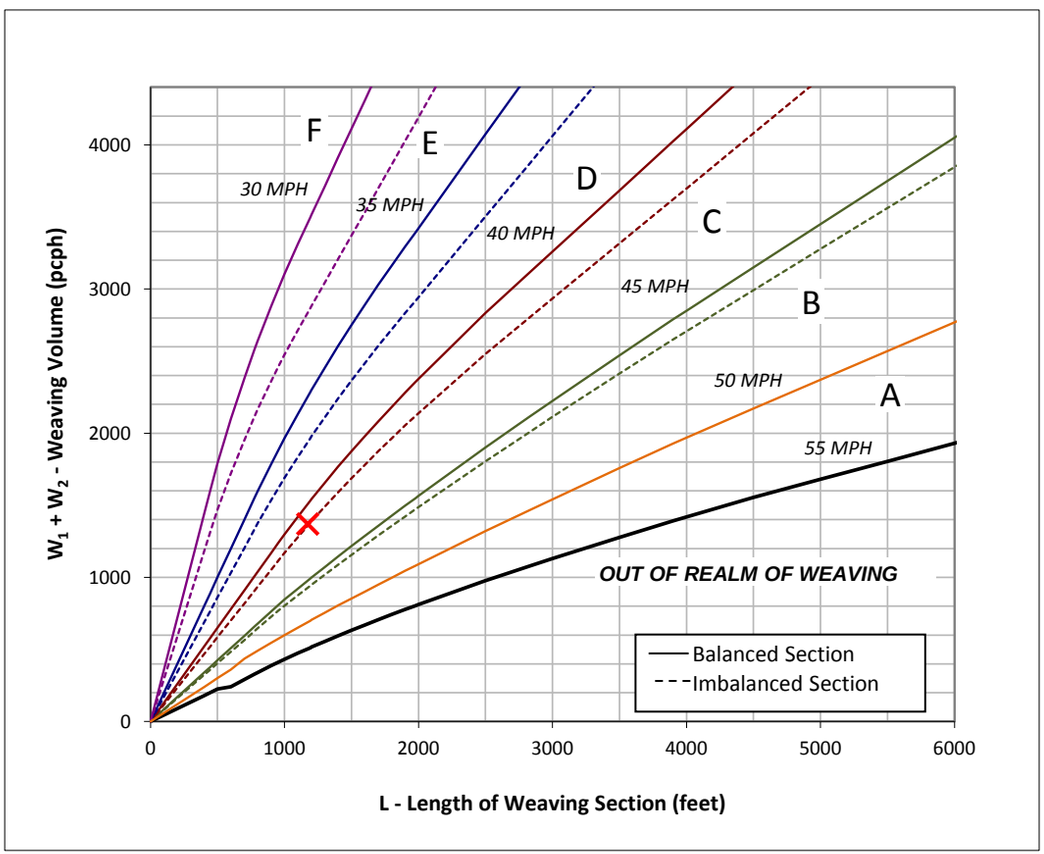
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,501	Volume (vph)*	369	Volume (vph)*	974
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,813	Volume (pcph)	376	Volume (pcph)	993



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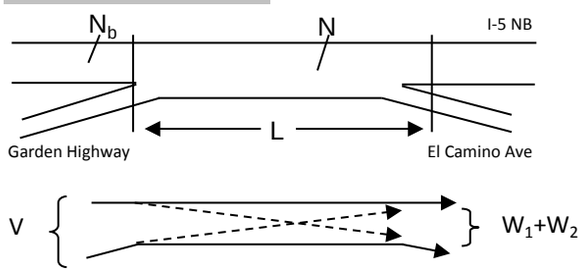


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.3
4. Weaving Intensity Factor (k)	2.41
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,469
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

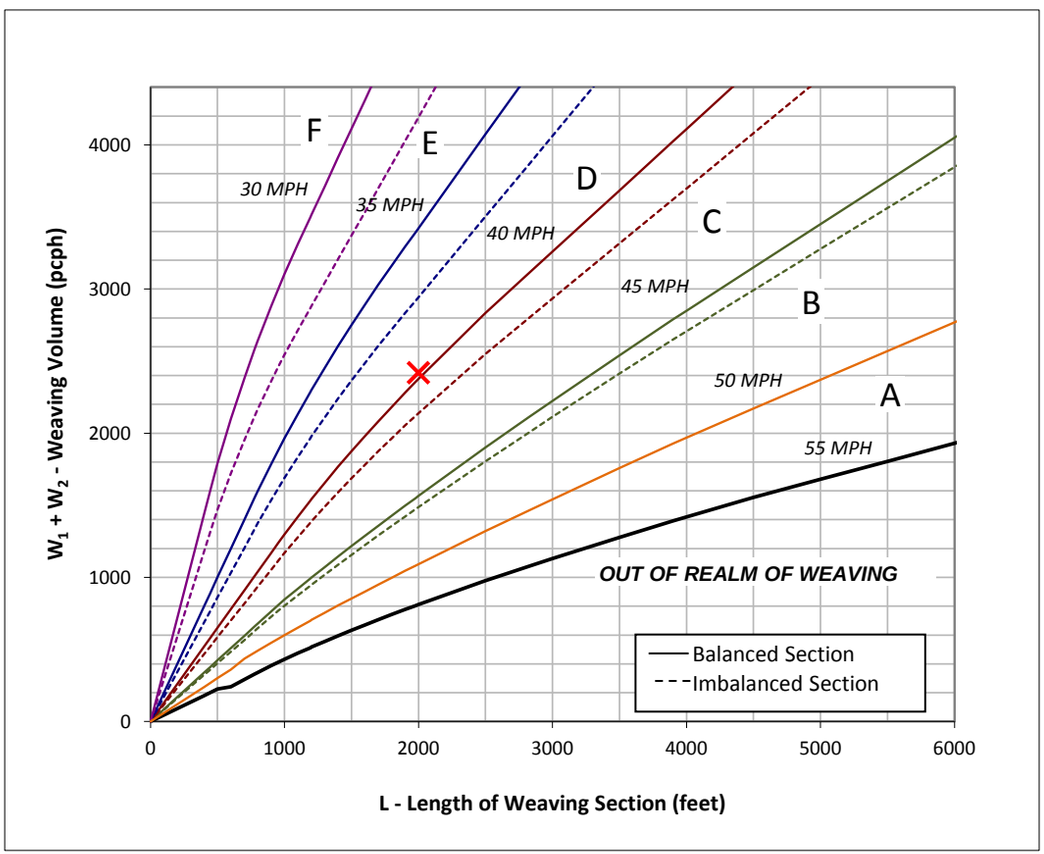
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,763	Volume (vph)*	623	Volume (vph)*	1,750
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,184	Volume (pcph)	635	Volume (pcph)	1,785



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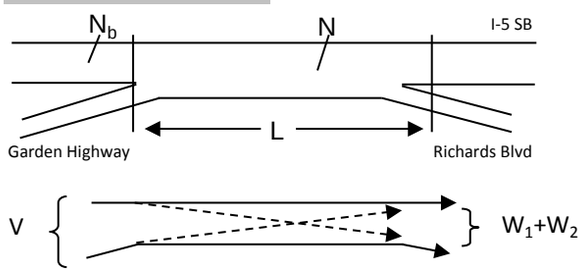


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	38.3
4. Weaving Intensity Factor (k)	2.63
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,044
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

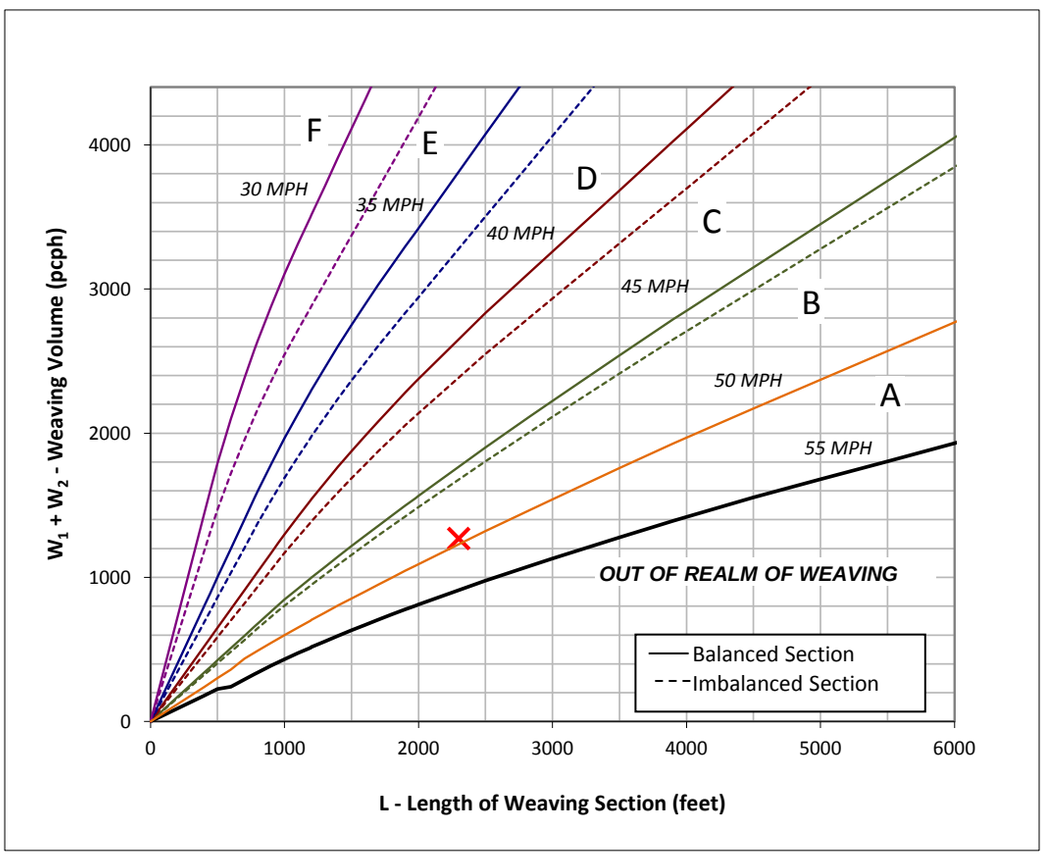
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU AM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,139	Volume (vph)*	294	Volume (vph)*	951
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,482	Volume (pcph)	300	Volume (pcph)	970



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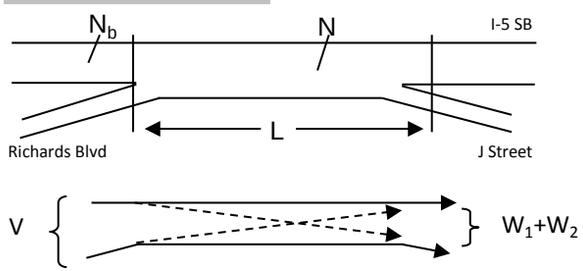


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	49.6
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,497
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	357	332	92.9%	28.5	1.5	C
	Through	69	68	98.6%	30.6	3.2	C
	Right Turn	488	474	97.2%	12.0	1.5	B
	Subtotal	914	874	95.6%	19.7	1.0	B
EB	Left Turn						
	Through	796	560	70.4%	199.2	18.2	F
	Right Turn	335	302	90.1%	20.8	7.6	C
	Subtotal	1,131	862	76.3%	136.8	15.0	F
WB	Left Turn	523	352	67.4%	14.6	4.3	B
	Through	384	268	69.8%	8.6	1.9	A
	Right Turn						
	Subtotal	907	620	68.4%	12.0	2.9	B
Total		2,952	2,357	79.8%	60.5	4.9	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	74	113.8%	29.6	5.2	C
	Through	10	11	108.0%	26.8	14.1	C
	Right Turn	430	449	104.4%	7.9	0.7	A
	Subtotal	505	534	105.7%	11.3	1.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	603	378	62.6%	58.5	3.8	E
	Through	550	492	89.5%	2.0	0.3	A
	Right Turn						
	Subtotal	1,153	870	75.4%	26.5	1.6	C
WB	Left Turn						
	Through	842	538	63.9%	15.3	2.6	B
	Right Turn	1,412	911	64.5%	5.5	0.4	A
	Subtotal	2,254	1,449	64.3%	9.2	1.2	A
Total		3,912	2,852	72.9%	14.9	0.4	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	893	467	52.3%	340.4	57.4	F
	Through	91	42	46.6%	349.1	64.0	F
	Right Turn	4	4	90.0%	255.4	53.2	F
	Subtotal	988	513	51.9%	340.4	57.7	F
SB	Left Turn	34	30	88.2%	34.8	7.5	C
	Through	17	16	91.8%	32.6	16.7	C
	Right Turn	108	92	85.6%	12.4	2.1	B
	Subtotal	159	138	86.8%	19.8	3.9	B
EB	Left Turn	40	37	93.0%	37.3	8.6	D
	Through	625	633	101.3%	14.8	2.1	B
	Right Turn	315	298	94.7%	2.6	0.2	A
	Subtotal	980	969	98.9%	11.9	1.5	B
WB	Left Turn	19	13	67.4%	36.7	11.4	D
	Through	1,253	927	74.0%	52.0	15.2	D
	Right Turn	9	5	53.3%	38.6	37.5	D
	Subtotal	1,281	944	73.7%	51.8	15.1	D
Total		3,408	2,564	75.2%	91.7	10.3	F

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	74	83.1%	37.2	11.4	D
	Through	5	6	112.0%	31.8	18.3	C
	Right Turn	15	14	96.0%	7.2	4.7	A
	Subtotal	109	94	86.2%	32.2	8.3	C
SB	Left Turn	70	63	90.3%	30.6	3.5	C
	Through	5	6	128.0%	29.2	20.6	C
	Right Turn	17	19	112.9%	19.4	10.4	B
	Subtotal	92	89	96.5%	28.6	5.5	C
EB	Left Turn	13	10	76.9%	58.0	14.5	E
	Through	638	637	99.8%	3.3	1.0	A
	Right Turn	12	11	90.0%	2.3	2.1	A
	Subtotal	663	658	99.2%	4.1	1.3	A
WB	Left Turn	2	2	100.0%	18.2	27.8	B
	Through	1,175	890	75.7%	39.8	16.2	D
	Right Turn	35	32	90.3%	43.1	24.5	D
	Subtotal	1,212	923	76.2%	39.8	16.2	D
Total		2,076	1,764	85.0%	25.1	8.0	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	337	332	98.6%	66.5	18.6	E
	Through	35	40	115.4%	43.7	7.0	D
	Right Turn	17	19	112.9%	31.7	7.8	C
	Subtotal	389	392	100.8%	62.4	16.0	E
SB	Left Turn	24	22	93.3%	32.2	14.2	C
	Through	62	57	92.3%	34.8	7.5	C
	Right Turn	49	55	112.7%	22.3	4.0	C
	Subtotal	135	135	99.9%	29.3	5.0	C
EB	Left Turn	8	10	130.0%	35.8	14.2	D
	Through	652	640	98.1%	14.1	2.4	B
	Right Turn	63	61	96.5%	8.3	3.6	A
	Subtotal	723	711	98.3%	13.9	2.2	B
WB	Left Turn	21	17	81.9%	49.3	12.6	D
	Through	826	619	74.9%	49.6	31.1	D
	Right Turn	10	8	84.0%	43.6	47.3	D
	Subtotal	857	644	75.2%	49.3	29.6	D
Total		2,104	1,882	89.4%	36.5	11.3	D

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	60.0%	18.0	26.3	B
	Through	5	4	88.0%	27.1	30.0	C
	Right Turn	8	9	110.0%	8.7	8.8	A
	Subtotal	17	16	91.8%	20.0	7.8	B
SB	Left Turn	11	10	87.3%	34.2	15.9	C
	Through	5	6	112.0%	34.3	21.9	C
	Right Turn	54	52	96.3%	11.2	4.7	B
	Subtotal	70	67	96.0%	17.3	4.5	B
EB	Left Turn	16	16	97.5%	59.7	12.7	E
	Through	672	656	97.7%	5.3	1.2	A
	Right Turn	5	7	144.0%	4.2	3.9	A
	Subtotal	693	679	98.0%	6.5	1.3	A
WB	Left Turn	1	1	80.0%	12.0	27.1	B
	Through	799	702	87.9%	9.6	3.8	A
	Right Turn	5	5	104.0%	15.5	25.2	B
	Subtotal	805	708	88.0%	9.7	3.9	A
Total		1,585	1,470	92.8%	8.6	2.1	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	112	100	89.6%	40.6	8.1	D
	Through	41	44	106.3%	44.6	27.1	D
	Right Turn	442	452	102.2%	34.8	26.7	C
	Subtotal	595	596	100.1%	36.2	22.2	D
SB	Left Turn	67	60	89.6%	46.1	12.2	D
	Through	18	21	115.6%	36.6	18.3	D
	Right Turn	53	52	98.1%	33.4	6.8	C
	Subtotal	138	133	96.2%	39.1	7.9	D
EB	Left Turn	5	4	88.0%	28.5	28.7	C
	Through	649	635	97.8%	33.3	4.3	C
	Right Turn	37	40	107.0%	30.6	5.9	C
	Subtotal	691	679	98.2%	33.2	4.2	C
WB	Left Turn	152	128	83.9%	48.5	8.8	D
	Through	642	593	92.3%	23.3	3.8	C
	Right Turn	13	12	92.3%	19.1	12.6	B
	Subtotal	807	732	90.8%	27.6	4.2	C
Total		2,231	2,140	95.9%	32.7	8.1	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	23	89.2%	30.1	10.0	C
	Through	11	10	87.3%	26.8	16.7	C
	Right Turn	431	404	93.8%	22.9	8.8	C
	Subtotal	468	437	93.4%	23.4	8.4	C
SB	Left Turn	88	80	90.9%	30.8	11.1	C
	Through	67	62	92.5%	27.0	5.6	C
	Right Turn	134	134	100.3%	7.4	1.5	A
	Subtotal	289	276	95.6%	18.3	2.2	B
EB	Left Turn	57	65	114.4%	34.8	7.2	C
	Through	890	844	94.8%	17.0	6.8	B
	Right Turn	211	194	92.1%	9.9	3.7	A
	Subtotal	1,158	1,104	95.3%	16.8	6.0	B
WB	Left Turn	17	16	94.1%	32.9	17.2	C
	Through	563	503	89.4%	10.7	2.1	B
	Right Turn	15	15	101.3%	11.0	6.7	B
	Subtotal	595	534	89.8%	11.4	2.0	B
Total		2,510	2,352	93.7%	16.9	3.8	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	22	74.7%	30.8	14.9	C
	Through	5	7	144.0%	36.9	33.4	D
	Right Turn	30	24	80.0%	19.1	10.2	B
	Subtotal	65	54	82.5%	28.6	11.3	C
SB	Left Turn	5	4	72.0%	34.5	50.2	C
	Through	9	10	111.1%	40.6	23.9	D
	Right Turn	22	22	98.2%	11.5	7.7	B
	Subtotal	36	35	97.8%	25.1	10.5	C
EB	Left Turn	5	3	56.0%	37.7	40.4	D
	Through	1,377	1,114	80.9%	46.6	15.1	D
	Right Turn	27	21	78.5%	36.1	25.8	D
	Subtotal	1,409	1,138	80.8%	46.4	15.1	D
WB	Left Turn	27	21	78.5%	38.2	14.1	D
	Through	543	526	96.9%	6.3	2.0	A
	Right Turn	3	2	53.3%	1.7	2.4	A
	Subtotal	573	549	95.8%	7.5	2.1	A
Total		2,083	1,776	85.3%	33.2	9.7	C

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	63	57	90.8%	101.7	11.6	F
	Through	4,016	3,448	85.8%	59.9	9.9	E
	Right Turn	11	10	87.3%	50.8	29.4	D
	Subtotal	4,090	3,514	85.9%	60.6	9.7	E
SB	Left Turn						
	Through	1,898	1,878	98.9%	35.7	3.1	D
	Right Turn	513	506	98.6%	25.6	2.4	C
	Subtotal	2,411	2,384	98.9%	33.6	2.7	C
EB	Left Turn	1,132	699	61.8%	165.3	18.4	F
	Through						
	Right Turn	117	88	74.9%	27.6	13.2	C
	Subtotal	1,249	787	63.0%	150.2	20.4	F
WB	Left Turn						
	Through	5	5	104.0%	78.0	46.8	E
	Right Turn	7	6	85.7%	36.4	28.2	D
	Subtotal	12	11	93.3%	69.0	27.9	E
Total		7,762	6,696	86.3%	61.5	6.4	E

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	691	281	40.7%	247.2	48.5	F
	Right Turn	2	0	20.0%	122.8	208.7	F
	Subtotal	693	282	40.6%	247.5	48.9	F
SB	Left Turn	71	71	99.7%	5.6	1.2	A
	Through	280	259	92.4%	5.5	0.3	A
	Right Turn						
	Subtotal	351	330	93.9%	5.5	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	1	60.0%	25.7	52.5	D
	Through						
	Right Turn	297	270	90.9%	42.1	21.5	E
	Subtotal	299	271	90.7%	42.2	21.7	E
Total		1,343	882	65.7%	92.2	12.3	F

Intersection 12 **N 16th St/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	275	94.9%	18.7	1.5	C
	Through	381	390	102.5%	21.3	3.8	C
	Right Turn						
	Subtotal	671	666	99.2%	20.2	2.7	C
SB	Left Turn						
	Through	137	127	92.8%	8.1	0.4	A
	Right Turn	9	11	120.0%	4.8	1.8	A
	Subtotal	146	138	94.5%	7.8	0.5	A
EB	Left Turn	8	6	75.0%	7.6	5.9	A
	Through						
	Right Turn	65	63	97.2%	3.2	0.9	A
	Subtotal	73	69	94.8%	3.7	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		890	873	98.1%	16.9	2.1	C

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	32	104.5%	17.6	6.3	B
	Through	13	12	89.2%	13.6	9.7	B
	Right Turn						
	Subtotal	44	44	100.0%	16.7	5.8	B
SB	Left Turn						
	Through	158	159	100.8%	13.8	1.9	B
	Right Turn	65	70	108.3%	7.0	1.9	A
	Subtotal	223	230	103.0%	11.8	1.8	B
EB	Left Turn						
	Through	8	7	85.0%	17.0	14.1	B
	Right Turn						
	Subtotal	8	7	85.0%	17.0	14.1	B
WB	Left Turn	79	76	95.7%	10.4	3.3	B
	Through	1,929	1,816	94.2%	13.5	3.1	B
	Right Turn	7	7	97.1%	8.8	11.0	A
	Subtotal	2,015	1,899	94.2%	13.4	3.1	B
Total		2,290	2,179	95.2%	13.3	2.8	B

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	211	157	74.3%	19.1	2.5	B
	Right Turn	49	32	65.3%	13.3	4.2	B
	Subtotal	260	189	72.6%	18.1	2.8	B
SB	Left Turn	495	489	98.8%	34.9	8.4	C
	Through	419	410	97.9%	24.4	8.0	C
	Right Turn	1	1	80.0%	1.9	6.0	A
	Subtotal	915	900	98.4%	30.1	8.2	C
EB	Left Turn	40	40	101.0%	21.8	8.3	C
	Through	9	9	97.8%	7.4	6.3	A
	Right Turn	11	9	80.0%	3.9	2.4	A
	Subtotal	60	58	96.7%	17.8	8.7	B
WB	Left Turn	83	73	87.7%	22.0	4.0	C
	Through	3	3	106.7%	11.0	16.9	B
	Right Turn	252	242	96.0%	7.7	0.9	A
	Subtotal	338	318	94.1%	11.0	1.8	B
Total		1,573	1,465	93.1%	24.0	5.4	C

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	75	110.0%	10.0	1.3	B
	Through	362	326	90.1%	8.6	0.6	A
	Right Turn	8	6	70.0%	6.9	5.5	A
	Subtotal	438	406	92.8%	8.9	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	87	88	101.1%	23.4	4.2	C
	Through	602	570	94.6%	23.5	3.4	C
	Right Turn						
	Subtotal	689	658	95.4%	23.5	3.5	C
WB	Left Turn						
	Through	333	304	91.2%	9.1	1.6	A
	Right Turn	6	7	120.0%	3.7	3.1	A
	Subtotal	339	311	91.7%	9.0	1.5	A
Total		1,466	1,375	93.8%	15.9	1.8	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	179	120	66.8%	12.8	3.1	B
	Right Turn						
	Subtotal	179	120	66.8%	12.8	3.1	B
SB	Left Turn						
	Through	549	533	97.1%	13.8	1.9	B
	Right Turn	11	10	94.5%	11.0	6.9	B
	Subtotal	560	544	97.1%	13.8	1.9	B
EB	Left Turn	56	30	52.9%	22.6	4.2	C
	Through						
	Right Turn	600	364	60.7%	9.0	1.2	A
	Subtotal	656	394	60.1%	10.0	1.2	B
WB	Left Turn	61	49	80.7%	21.3	6.0	C
	Through	625	554	88.6%	18.6	7.7	B
	Right Turn	236	222	94.1%	8.6	3.8	A
	Subtotal	922	825	89.5%	16.0	6.3	B
Total		2,317	1,882	81.2%	13.8	2.8	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	5	43.6%	15.6	14.0	B
	Through	762	523	68.6%	7.0	1.7	A
	Right Turn	224	142	63.2%	4.1	1.2	A
	Subtotal	997	669	67.1%	6.4	1.5	A
SB	Left Turn	8	4	55.0%	41.7	41.0	D
	Through	844	362	42.9%	58.9	20.2	E
	Right Turn	5	2	40.0%	19.6	28.5	B
	Subtotal	857	368	43.0%	58.7	20.3	E
EB	Left Turn	5	4	72.0%	9.5	15.7	A
	Through	35	36	104.0%	17.9	3.3	B
	Right Turn	5	4	80.0%	4.9	6.8	A
	Subtotal	45	44	97.8%	17.2	3.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,899	1,082	57.0%	24.2	5.6	C

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	480	350	72.8%	22.4	1.5	C
	Right Turn	30	24	80.0%	11.5	4.5	B
	Subtotal	510	374	73.3%	21.7	1.6	C
SB	Left Turn	221	138	62.6%	58.8	9.8	E
	Through	681	472	69.4%	35.0	9.1	D
	Right Turn						
	Subtotal	902	611	67.7%	40.5	8.7	D
EB	Left Turn	64	39	61.3%	11.5	2.7	B
	Through	176	126	71.4%	10.0	1.2	B
	Right Turn	27	18	68.1%	7.7	3.8	A
	Subtotal	267	183	68.6%	10.0	0.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,679	1,168	69.5%	29.8	4.7	C

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	592	448	75.7%	24.3	2.4	C
	Through	1,034	762	73.7%	18.7	1.1	B
	Right Turn						
	Subtotal	1,626	1,211	74.5%	20.8	1.4	C
EB	Left Turn	179	121	67.7%	6.6	1.8	A
	Through	190	134	70.5%	6.2	1.7	A
	Right Turn	131	101	77.3%	3.9	0.9	A
	Subtotal	500	356	71.3%	5.7	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,126	1,567	73.7%	17.4	1.1	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	701	655	93.4%	7.7	1.2	A
	Right Turn	225	211	93.9%	7.6	0.9	A
	Subtotal	926	866	93.5%	7.7	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	163	126	77.5%	8.7	1.0	A
	Through	666	508	76.3%	9.3	0.7	A
	Right Turn						
	Subtotal	829	634	76.5%	9.2	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,755	1,500	85.5%	8.3	0.8	A

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	15.6	20.5	B
	Through	906	599	66.1%	10.4	1.7	B
	Right Turn						
	Subtotal	911	601	65.9%	10.5	1.6	B
SB	Left Turn						
	Through						
	Right Turn	879	345	39.2%	71.9	15.1	E
	Subtotal	879	345	39.2%	71.9	15.1	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,706	1,605	59.3%	33.4	1.7	C
	Right Turn	49	34	69.4%	16.2	3.5	B
	Subtotal	2,755	1,639	59.5%	33.0	1.6	C
Total		4,545	2,584	56.9%	32.8	1.9	C

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	148	77.3%	36.2	12.2	D
	Through	427	325	76.1%	34.0	11.8	C
	Right Turn						
	Subtotal	618	472	76.4%	34.7	11.8	C
SB	Left Turn						
	Through	143	102	71.0%	31.1	11.5	C
	Right Turn	565	381	67.4%	21.9	10.5	C
	Subtotal	708	482	68.1%	23.8	10.6	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	10	53.3%	73.2	39.4	E
	Through	1,999	1,195	59.8%	49.6	6.6	D
	Right Turn	83	54	64.6%	34.8	8.3	C
	Subtotal	2,100	1,258	59.9%	49.2	6.5	D
Total		3,426	2,213	64.6%	40.4	5.2	D

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	866	640	73.9%	8.4	1.0	A
	Right Turn	299	218	72.8%	8.6	1.5	A
	Subtotal	1,165	857	73.6%	8.5	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	159	101	63.4%	38.8	8.4	D
	Through	1,801	1,210	67.2%	41.4	5.3	D
	Right Turn						
	Subtotal	1,960	1,311	66.9%	41.2	5.4	D
Total		3,125	2,168	69.4%	28.2	2.9	C

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	398	398	100.0%	24.3	6.2	C
	Through	798	786	98.5%	14.3	2.1	B
	Right Turn						
	Subtotal	1,196	1,184	99.0%	17.7	3.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,562	1,020	65.3%	62.3	14.0	E
	Right Turn	128	90	70.0%	67.8	13.9	E
	Subtotal	1,690	1,110	65.7%	62.7	13.8	E
Total		2,886	2,294	79.5%	39.3	6.2	D

Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	6	112.0%	65.0	41.3	E
	Through	529	523	98.9%	39.4	8.4	D
	Right Turn	27	31	114.1%	19.0	6.9	B
	Subtotal	561	560	99.8%	38.7	7.9	D
SB	Left Turn	232	72	30.9%	266.3	42.8	F
	Through	334	93	27.8%	272.6	51.0	F
	Right Turn						
	Subtotal	566	164	29.0%	270.5	43.1	F
EB	Left Turn	5	2	48.0%	92.0	127.3	F
	Through	859	575	67.0%	149.0	47.1	F
	Right Turn	468	386	82.4%	89.7	26.4	F
	Subtotal	1,332	963	72.3%	125.1	33.1	F
NB	Left Turn						
	Through						
	Right Turn	146	163	111.8%	19.5	6.4	B
	Subtotal	146	163	111.8%	19.5	6.4	B
Total		2,605	1,850	71.0%	101.5	16.0	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	252	246	97.6%	17.2	3.8	B
	Right Turn	385	387	100.6%	14.8	3.6	B
	Subtotal	637	633	99.4%	15.7	3.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	659	357	54.2%	90.8	7.4	F
	Through	1,092	909	83.3%	41.6	3.1	D
	Right Turn	24	20	83.3%	27.5	8.4	C
	Subtotal	1,775	1,286	72.5%	55.0	3.1	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,412	1,920	79.6%	42.1	1.7	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	92	70	76.5%	6.5	1.5	A
	Through	933	667	71.5%	9.3	1.0	A
	Right Turn						
	Subtotal	1,025	738	72.0%	9.1	1.0	A
EB	Left Turn						
	Through	1,013	909	89.7%	26.3	1.7	C
	Right Turn	175	157	89.8%	14.5	2.6	B
	Subtotal	1,188	1,066	89.7%	24.6	1.8	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,213	1,804	81.5%	18.2	1.1	B

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	117	122	103.9%	28.8	3.5	C
	Through	135	126	93.3%	17.4	3.6	B
	Right Turn	16	14	90.0%	4.6	3.7	A
	Subtotal	268	262	97.8%	21.9	2.7	C
SB	Left Turn	53	61	114.7%	28.6	6.2	C
	Through	82	81	99.0%	19.0	4.8	B
	Right Turn	14	13	91.4%	4.1	1.8	A
	Subtotal	149	155	103.9%	21.5	3.5	C
EB	Left Turn	28	30	105.7%	30.3	9.1	C
	Through	279	265	94.9%	17.1	1.9	B
	Right Turn	71	70	99.2%	8.1	4.3	A
	Subtotal	378	365	96.5%	16.3	2.2	B
WB	Left Turn	126	58	46.3%	30.8	4.0	C
	Through	401	202	50.4%	17.5	3.8	B
	Right Turn	78	43	54.9%	4.9	0.9	A
	Subtotal	605	303	50.1%	18.3	2.3	B
Total		1,400	1,085	77.5%	19.0	1.8	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	17	66.2%	9.4	6.2	A
	Through	11	12	112.7%	13.2	13.6	B
	Right Turn	195	192	98.5%	4.2	0.6	A
	Subtotal	232	222	95.5%	5.3	1.2	A
SB	Left Turn	7	10	142.9%	20.1	10.8	C
	Through	3	4	146.7%	14.8	11.3	B
	Right Turn	1	1	120.0%	1.1	1.8	A
	Subtotal	11	16	141.8%	19.0	5.9	B
EB	Left Turn	3	2	66.7%	10.1	10.9	B
	Through	327	321	98.2%	7.5	1.3	A
	Right Turn	18	18	97.8%	5.0	2.3	A
	Subtotal	348	341	97.9%	7.5	1.3	A
WB	Left Turn	12	7	60.0%	16.9	6.8	B
	Through	578	295	51.1%	9.3	1.3	A
	Right Turn	14	8	57.1%	7.4	4.6	A
	Subtotal	604	310	51.4%	9.5	1.4	A
Total		1,195	888	74.3%	7.9	0.4	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	685	464	67.8%	15.2	2.8	B
	Right Turn	82	59	72.2%	11.7	3.4	B
	Subtotal	767	524	68.3%	14.8	2.8	B
SB	Left Turn	380	152	39.9%	176.2	25.4	F
	Through	600	226	37.6%	172.7	33.6	F
	Right Turn						
	Subtotal	980	377	38.5%	174.1	28.9	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	257	188	73.2%	46.7	26.5	D
	Through						
	Right Turn	103	88	85.4%	15.7	11.5	B
	Subtotal	360	276	76.7%	36.7	20.6	D
Total		2,107	1,177	55.9%	70.1	7.8	E

Intersection 65 **6th St/G St** **0**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	6	42.7%	28.1	38.7	D
	Through	461	336	72.9%	5.7	0.7	A
	Right Turn	68	44	65.3%	3.6	0.7	A
	Subtotal	544	387	71.1%	5.9	1.0	A
SB	Left Turn	258	209	80.9%	106.2	34.5	F
	Through	496	398	80.3%	99.8	38.5	F
	Right Turn	89	77	86.3%	90.6	33.7	F
	Subtotal	843	684	81.1%	100.8	36.2	F
EB	Left Turn	2	1	40.0%	7.2	16.7	A
	Through	330	133	40.4%	12.8	10.8	B
	Right Turn	130	66	51.1%	16.2	16.0	C
	Subtotal	462	200	43.4%	14.2	12.5	B
WB	Left Turn	67	48	71.6%	58.8	43.8	F
	Through	256	224	87.5%	30.5	14.6	D
	Right Turn	313	259	82.7%	24.2	15.2	C
	Subtotal	636	531	83.5%	30.0	13.0	D
Total		2,485	1,802	72.5%	49.1	13.7	E

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	14	93.9%	38.5	20.8	D
	Through	68	67	98.9%	34.2	3.9	C
	Right Turn	77	77	100.1%	6.9	1.2	A
	Subtotal	160	158	99.0%	21.2	2.4	C
SB	Left Turn	74	60	81.3%	8.5	8.4	A
	Through	150	130	86.8%	22.9	4.5	C
	Right Turn	9	7	74.3%	5.6	12.5	A
	Subtotal	233	197	84.6%	18.0	4.3	B
EB	Left Turn	38	35	91.7%	60.8	10.4	E
	Through	534	466	87.3%	34.4	4.3	C
	Right Turn	6	3	52.8%	22.5	24.2	C
	Subtotal	578	504	87.2%	36.2	3.9	D
WB	Left Turn	168	148	88.0%	65.9	12.0	E
	Through	888	746	84.0%	49.1	11.3	D
	Right Turn	135	117	86.3%	31.2	12.7	C
	Subtotal	1,191	1,010	84.8%	49.6	10.4	D
Total		2,162	1,870	86.5%	40.2	6.3	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	2	211.2%	13.8	15.9	B
	Through	2	2	105.6%	6.9	10.4	A
	Right Turn	54	53	97.8%	7.6	2.0	A
	Subtotal	57	57	100.0%	8.8	2.7	A
SB	Left Turn	261	238	91.0%	27.6	7.7	C
	Through	127	110	86.8%	19.7	4.1	B
	Right Turn	129	95	73.9%	11.6	2.7	B
	Subtotal	517	443	85.7%	22.3	5.4	C
EB	Left Turn	26	26	101.5%	38.5	10.9	D
	Through	654	565	86.4%	28.6	5.9	C
	Right Turn	5	4	84.5%	14.3	16.3	B
	Subtotal	685	596	87.0%	29.0	5.5	C
WB	Left Turn	93	94	101.1%	45.6	8.5	D
	Through	1,061	928	87.5%	25.8	7.4	C
	Right Turn	100	80	80.3%	24.1	7.4	C
	Subtotal	1,254	1,102	87.9%	27.5	7.0	C
Total		2,513	2,199	87.5%	26.4	5.3	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	219	223	101.7%	17.4	1.9	B
	Through	1,389	1,358	97.8%	12.6	0.7	B
	Right Turn	34	42	122.4%	10.9	2.0	B
	Subtotal	1,642	1,623	98.8%	13.2	0.7	B
EB	Left Turn						
	Through	361	382	105.8%	17.3	3.1	B
	Right Turn	18	16	88.9%	14.2	5.4	B
	Subtotal	379	398	105.0%	17.2	3.0	B
WB	Left Turn	46	48	103.5%	28.8	11.8	C
	Through	25	30	118.4%	11.3	5.4	B
	Right Turn						
	Subtotal	71	77	108.7%	22.3	8.0	C
Total		2,092	2,098	100.3%	14.3	0.9	B

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	283	266	93.9%	16.8	1.1	B
	Through	1,053	1,049	99.6%	15.3	1.0	B
	Right Turn	116	105	90.7%	12.5	2.2	B
	Subtotal	1,452	1,420	97.8%	15.3	1.0	B
EB	Left Turn						
	Through	321	305	95.1%	35.1	4.2	D
	Right Turn	281	273	97.2%	30.2	4.9	C
	Subtotal	602	578	96.1%	32.8	4.0	C
WB	Left Turn	6	5	86.7%	11.5	12.0	B
	Through	193	171	88.7%	12.7	2.4	B
	Right Turn						
	Subtotal	199	176	88.6%	12.9	2.5	B
Total		2,253	2,174	96.5%	19.8	1.5	B

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	72	77.0%	45.9	7.0	D
	Through	101	79	78.4%	27.5	7.0	C
	Right Turn	307	229	74.7%	27.0	7.3	C
	Subtotal	501	380	75.8%	30.5	6.3	C
SB	Left Turn	5	5	96.0%	50.3	21.0	D
	Through	257	268	104.3%	35.0	4.0	D
	Right Turn	24	30	123.3%	37.9	12.0	D
	Subtotal	286	302	105.7%	35.6	3.9	D
EB	Left Turn	464	346	74.6%	31.1	3.1	C
	Through	91	69	75.6%	14.3	3.5	B
	Right Turn	5	5	96.0%	11.5	10.7	B
	Subtotal	560	420	74.9%	28.2	2.6	C
WB	Left Turn	5	3	64.0%	28.5	28.9	C
	Through	190	166	87.4%	30.7	5.6	C
	Right Turn	28	25	90.0%	18.1	6.0	B
	Subtotal	223	194	87.2%	29.2	4.7	C
Total		1,570	1,296	82.6%	30.7	3.2	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	82	28	33.7%	277.5	94.4	F
	Through	141	94	66.7%	97.0	58.7	F
	Right Turn	1	1	120.0%	15.7	25.7	B
	Subtotal	224	123	54.8%	135.2	62.4	F
SB	Left Turn	25	22	86.4%	71.8	26.1	E
	Through	188	169	90.0%	74.9	35.1	E
	Right Turn	7	8	114.3%	60.9	44.6	E
	Subtotal	220	199	90.4%	73.9	33.6	E
EB	Left Turn						
	Through	669	404	60.3%	76.3	24.2	E
	Right Turn	105	64	61.0%	64.2	28.3	E
	Subtotal	774	468	60.4%	74.9	24.1	E
SW	Left Turn	28	35	125.7%	43.0	6.6	D
	Through	2,083	2,061	98.9%	36.0	3.7	D
	Right Turn	10	8	84.0%	50.9	19.0	D
	Subtotal	2,121	2,104	99.2%	36.1	3.6	D
Total		3,339	2,894	86.7%	48.5	4.8	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	60	118.4%	24.8	5.1	C
	Through	3,112	3,096	99.5%	24.2	1.4	C
	Right Turn	2	4	200.0%	22.9	20.9	C
	Subtotal	3,165	3,161	99.9%	24.3	1.4	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	649	398	61.4%	28.1	2.4	C
	Through	3	2	53.3%	9.3	9.9	A
	Right Turn						
	Subtotal	652	400	61.3%	28.1	2.3	C
WB	Left Turn						
	Through	10	9	92.0%	10.1	9.8	B
	Right Turn	3	2	80.0%	5.9	9.2	A
	Subtotal	13	12	89.2%	10.3	8.6	B
Total		3,830	3,572	93.3%	24.7	1.2	C

Intersection 38 **5th St/Bannon St-N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	333	276	82.8%	8.4	1.4	A
	Through						
	Right Turn	8	4	55.0%	2.5	2.5	A
	Subtotal	341	280	82.1%	8.3	1.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	67	70	105.1%	6.4	1.6	A
	Right Turn	142	148	103.9%	4.6	0.8	A
	Subtotal	209	218	104.3%	5.2	1.1	A
WB	Left Turn	36	31	86.7%	11.3	3.3	B
	Through	226	184	81.4%	7.0	1.2	A
	Right Turn						
	Subtotal	262	215	82.1%	7.7	1.4	A
Total		812	713	87.8%	7.2	1.0	A

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	29	80.0%	10.5	2.8	B
	Through						
	Right Turn	523	398	76.0%	7.4	0.7	A
	Subtotal	559	426	76.3%	7.6	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	37	33	89.7%	12.3	3.9	B
	Right Turn	38	41	108.4%	7.0	2.7	A
	Subtotal	75	74	99.2%	9.3	3.3	A
WB	Left Turn	81	77	94.8%	22.7	4.8	C
	Through	226	194	86.0%	7.6	1.2	A
	Right Turn						
	Subtotal	307	271	88.3%	11.8	1.9	B
Total		941	772	82.0%	9.3	0.8	A

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	60.0%	4.8	6.3	A
	Through						
	Right Turn	369	281	76.1%	8.5	1.4	A
	Subtotal	373	283	75.9%	8.5	1.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	398	289	72.7%	8.4	1.6	A
	Right Turn	5	6	128.0%	2.1	2.0	A
	Subtotal	403	296	73.3%	8.3	1.5	A
WB	Left Turn	53	53	100.4%	11.9	3.3	B
	Through	219	188	85.8%	7.0	1.3	A
	Right Turn						
	Subtotal	272	241	88.7%	8.1	1.5	A
Total		1,048	820	78.2%	8.3	0.9	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	12.3	14.7	B
	Through	303	226	74.5%	12.7	2.7	B
	Right Turn	144	106	73.9%	10.1	1.6	B
	Subtotal	452	336	74.2%	12.0	2.0	B
SB	Left Turn	24	24	101.7%	14.6	6.4	B
	Through	22	28	127.3%	5.8	2.1	A
	Right Turn	54	54	100.0%	4.4	2.4	A
	Subtotal	100	106	106.4%	7.3	1.8	A
EB	Left Turn	156	111	71.3%	22.8	3.9	C
	Through	606	449	74.1%	8.6	1.0	A
	Right Turn	5	4	80.0%	4.2	5.0	A
	Subtotal	767	564	73.6%	11.5	1.3	B
WB	Left Turn	1	2	160.0%	14.6	20.3	B
	Through	143	101	70.5%	13.1	3.9	B
	Right Turn	9	5	57.8%	8.9	11.1	A
	Subtotal	153	108	70.3%	13.4	4.1	B
Total		1,472	1,114	75.7%	11.4	1.2	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	455	451	99.1%	8.6	0.6	A
	Right Turn	190	184	96.8%	5.1	0.5	A
	Subtotal	645	635	98.4%	7.6	0.5	A
SB	Left Turn	75	81	108.3%	28.0	7.6	C
	Through	207	203	98.2%	11.1	1.4	B
	Right Turn						
	Subtotal	282	284	100.9%	16.0	2.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	57	50	87.7%	16.1	2.6	B
	Through						
	Right Turn	238	207	87.1%	12.0	2.1	B
	Subtotal	295	257	87.2%	12.9	1.9	B
Total		1,222	1,176	96.3%	10.7	1.0	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	225	156	69.3%	44.2	4.8	D
	Through	194	152	78.6%	25.1	3.4	C
	Right Turn	35	24	69.7%	16.2	4.9	B
	Subtotal	454	333	73.3%	33.4	2.5	C
SB	Left Turn	52	51	98.5%	35.7	5.8	D
	Through	74	74	100.0%	27.2	4.7	C
	Right Turn	52	50	96.2%	13.7	4.6	B
	Subtotal	178	175	98.4%	25.8	3.5	C
EB	Left Turn	56	47	84.3%	43.9	11.3	D
	Through	201	165	82.0%	48.5	11.3	D
	Right Turn	263	230	87.3%	40.9	14.6	D
	Subtotal	520	442	84.9%	44.2	12.9	D
WB	Left Turn	37	28	74.6%	33.3	8.3	C
	Through	103	95	92.4%	32.8	4.2	C
	Right Turn	91	88	96.3%	20.0	5.6	B
	Subtotal	231	210	91.1%	27.5	4.6	C
Total		1,383	1,160	83.9%	35.1	3.8	D

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	53	52	98.9%	7.9	1.7	A
	Through	5	5	104.0%	6.8	4.8	A
	Right Turn	55	49	89.5%	5.1	1.4	A
	Subtotal	113	107	94.5%	6.6	1.2	A
SB	Left Turn	2	2	120.0%	2.3	3.6	A
	Through	5	4	80.0%	5.0	6.7	A
	Right Turn	13	17	129.2%	3.2	0.7	A
	Subtotal	20	23	116.0%	4.4	1.5	A
EB	Left Turn	22	19	85.5%	4.1	2.0	A
	Through	234	198	84.4%	2.5	0.3	A
	Right Turn	32	26	82.5%	2.1	0.7	A
	Subtotal	288	243	84.3%	2.6	0.3	A
WB	Left Turn	16	14	90.0%	5.3	3.5	A
	Through	165	142	85.8%	2.2	0.4	A
	Right Turn	26	23	89.2%	2.0	0.6	A
	Subtotal	207	179	86.6%	2.4	0.5	A
Total		628	552	87.9%	3.4	0.2	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	50	41	82.4%	13.4	4.3	B
	Through	410	315	76.8%	28.9	7.9	D
	Right Turn	135	105	77.6%	24.9	6.6	C
	Subtotal	595	461	77.4%	26.6	7.1	D
SB	Left Turn	1	2	160.0%	1.7	3.6	A
	Through	67	65	96.7%	11.1	2.6	B
	Right Turn	51	46	91.0%	6.8	1.8	A
	Subtotal	119	113	94.8%	9.4	1.9	A
EB	Left Turn	146	120	82.5%	15.2	3.1	C
	Through	109	91	83.7%	15.2	3.2	C
	Right Turn	36	39	107.8%	11.7	4.8	B
	Subtotal	291	250	86.0%	14.7	2.9	B
WB	Left Turn	87	85	97.9%	12.3	2.8	B
	Through	106	90	84.5%	14.7	2.5	B
	Right Turn	3	4	133.3%	8.8	8.5	A
	Subtotal	196	179	91.2%	13.5	2.0	B
Total		1,201	1,003	83.5%	19.5	3.8	C

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	62	77.0%	7.7	2.5	A
	Through	295	238	80.7%	4.3	0.9	A
	Right Turn						
	Subtotal	375	300	79.9%	5.1	1.0	A
SB	Left Turn						
	Through	107	109	102.1%	5.5	1.1	A
	Right Turn	116	121	104.1%	5.1	0.9	A
	Subtotal	223	230	103.1%	5.3	0.7	A
EB	Left Turn	202	164	81.2%	7.0	0.5	A
	Through						
	Right Turn	43	34	78.1%	5.3	1.0	A
	Subtotal	245	198	80.7%	6.7	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		843	727	86.3%	5.6	0.6	A

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	459	451	98.3%	10.6	2.2	B
	Right Turn						
	Subtotal	459	451	98.3%	10.6	2.2	B
WB	Left Turn						
	Through	676	531	78.5%	1.6	0.2	A
	Right Turn						
	Subtotal	676	531	78.5%	1.6	0.2	A
Total		1,135	982	86.5%	5.7	1.0	A

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	137	124	90.2%	31.9	3.7	C
	Through	71	74	104.2%	12.9	2.7	B
	Right Turn	5	7	136.0%	12.6	8.8	B
	Subtotal	213	204	96.0%	24.4	3.5	C
SB	Left Turn	117	117	99.8%	44.1	24.8	D
	Through	59	60	101.0%	14.2	4.6	B
	Right Turn	35	42	120.0%	8.4	2.6	A
	Subtotal	211	218	103.5%	28.2	12.4	C
EB	Left Turn	5	3	64.0%	14.3	21.1	B
	Through	390	382	97.9%	22.8	8.9	C
	Right Turn	64	54	85.0%	21.6	14.6	C
	Subtotal	459	440	95.8%	22.8	9.3	C
WB	Left Turn	5	3	64.0%	22.0	21.0	C
	Through	504	369	73.2%	15.5	3.1	B
	Right Turn	229	179	78.3%	8.7	1.6	A
	Subtotal	738	551	74.7%	13.5	2.8	B
Total		1,621	1,414	87.2%	20.3	4.6	C

Intersection 49 **PH Garage Entry/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	207	80.3%	18.3	5.0	B
	Through	2	1	40.0%	5.3	7.9	A
	Right Turn	147	109	74.3%	19.2	6.1	B
	Subtotal	407	317	77.9%	18.6	5.2	B
SB	Left Turn	274	256	93.6%	30.5	9.7	C
	Through	3	2	80.0%	31.1	29.3	C
	Right Turn	105	100	95.6%	25.6	9.5	C
	Subtotal	382	359	94.0%	29.4	9.4	C
EB	Left Turn	99	93	93.7%	41.1	17.4	D
	Through	423	388	91.8%	37.0	16.8	D
	Right Turn	99	92	92.5%	32.3	14.8	C
	Subtotal	621	573	92.2%	36.9	16.3	D
WB	Left Turn	93	61	65.8%	36.9	14.6	D
	Through	320	199	62.1%	10.3	2.1	B
	Right Turn	209	142	68.1%	7.1	1.8	A
	Subtotal	622	402	64.7%	13.7	5.2	B
Total		2,032	1,652	81.3%	26.0	8.2	C

Intersection 50 **HSB Entry-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	120.0%	14.5	9.8	B
	Through	5	8	160.0%	23.5	23.5	C
	Right Turn	276	278	100.9%	20.4	11.0	C
	Subtotal	286	292	102.2%	20.6	10.8	C
SB	Left Turn	10	12	124.0%	20.7	29.4	C
	Through	5	6	112.0%	15.7	18.9	B
	Right Turn	10	8	76.0%	10.2	21.3	B
	Subtotal	25	26	102.4%	17.4	24.0	B
EB	Left Turn	5	5	96.0%	29.5	50.7	C
	Through	825	716	86.7%	23.4	14.2	C
	Right Turn	14	12	82.9%	19.2	19.8	B
	Subtotal	844	732	86.7%	23.4	14.3	C
WB	Left Turn	12	4	33.3%	28.3	25.9	C
	Through	607	396	65.2%	9.1	1.4	A
	Right Turn	10	7	72.0%	8.1	7.0	A
	Subtotal	629	407	64.7%	9.5	1.5	A
Total		1,784	1,457	81.7%	18.7	9.4	B

Intersection 51 **5th St-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	34	65.9%	87.7	18.6	F
	Through	249	188	75.5%	62.6	13.4	E
	Right Turn	26	17	66.2%	43.9	15.0	D
	Subtotal	326	239	73.3%	64.6	12.5	E
SB	Left Turn	161	150	93.2%	54.4	24.2	D
	Through	193	159	82.5%	42.9	26.6	D
	Right Turn	20	20	98.0%	35.2	33.1	D
	Subtotal	374	329	87.9%	47.8	25.5	D
EB	Left Turn	44	30	67.3%	60.5	15.9	E
	Through	1,084	864	79.7%	39.0	20.3	D
	Right Turn	127	110	86.3%	31.1	13.0	C
	Subtotal	1,255	1,003	79.9%	38.9	19.1	D
WB	Left Turn	12	11	90.0%	74.8	55.7	E
	Through	325	245	75.4%	19.8	4.7	B
	Right Turn	161	134	83.0%	13.9	3.2	B
	Subtotal	498	390	78.2%	19.1	2.7	B
Total		2,453	1,960	79.9%	38.9	9.6	D

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	30	26	86.7%	7.6	3.7	A
	Subtotal	30	26	86.7%	7.6	3.7	A
EB	Left Turn						
	Through	1,271	1,016	79.9%	10.9	5.7	B
	Right Turn						
	Subtotal	1,271	1,016	79.9%	10.9	5.7	B
WB	Left Turn						
	Through	468	367	78.5%	2.7	0.6	A
	Right Turn	57	47	82.1%	1.5	0.5	A
	Subtotal	525	414	78.9%	2.6	0.5	A
Total		1,826	1,456	79.7%	8.5	3.8	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	19	89.5%	33.6	14.1	C
	Through	240	204	85.0%	33.4	5.7	C
	Right Turn	284	246	86.5%	12.8	6.6	B
	Subtotal	545	468	85.9%	22.6	3.8	C
SB	Left Turn	53	50	93.6%	46.0	12.2	D
	Through	103	105	102.1%	31.1	7.1	C
	Right Turn	34	29	84.7%	24.2	9.1	C
	Subtotal	190	184	96.6%	34.0	6.6	C
EB	Left Turn	317	222	69.9%	50.8	10.6	D
	Through	923	742	80.4%	31.9	10.1	C
	Right Turn	31	29	92.9%	20.7	8.5	C
	Subtotal	1,271	993	78.1%	35.8	10.1	D
WB	Left Turn	244	189	77.4%	36.6	2.5	D
	Through	470	369	78.6%	20.5	3.5	C
	Right Turn	38	39	103.2%	15.4	10.3	B
	Subtotal	752	597	79.4%	25.2	3.4	C
Total		2,758	2,242	81.3%	30.1	4.1	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	157	129	82.0%	59.3	10.5	E
	Through	173	144	83.0%	59.0	13.7	E
	Right Turn	173	138	80.0%	52.2	13.1	D
	Subtotal	503	411	81.7%	57.2	9.8	E
SB	Left Turn	1	2	200.0%	3.4	8.7	A
	Through	110	101	91.6%	34.9	8.0	C
	Right Turn	39	40	103.6%	12.5	5.7	B
	Subtotal	150	143	95.5%	28.3	6.6	C
EB	Left Turn	200	162	81.2%	31.4	3.8	C
	Through	460	348	75.7%	27.6	4.4	C
	Right Turn	600	490	81.7%	15.3	2.8	B
	Subtotal	1,260	1,001	79.5%	22.2	1.7	C
WB	Left Turn	205	171	83.5%	98.9	15.4	F
	Through	556	438	78.8%	111.1	26.7	F
	Right Turn	2	2	80.0%	64.8	38.1	E
	Subtotal	763	611	80.1%	107.9	23.6	F
Total		2,676	2,166	81.0%	53.4	7.9	D

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	2	48.0%	44.6	84.2	E
	Through						
	Right Turn	5	6	128.0%	65.2	82.5	F
	Subtotal	10	9	88.0%	68.5	78.0	F
EB	Left Turn	251	178	70.8%	32.1	5.1	D
	Through	383	294	76.7%	4.9	1.4	A
	Right Turn						
	Subtotal	634	471	74.3%	15.1	2.9	C
WB	Left Turn						
	Through	758	642	84.6%	100.1	35.8	F
	Right Turn	4	4	90.0%	82.5	35.7	F
	Subtotal	762	645	84.7%	100.1	35.8	F
Total		1,406	1,125	80.0%	64.1	20.1	F

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	22	27	121.8%	14.5	3.4	B
	Subtotal	22	27	121.8%	14.5	3.4	B
EB	Left Turn	430	318	73.9%	30.0	4.5	C
	Through						
	Right Turn						
	Subtotal	430	318	73.9%	30.0	4.5	C
WB	Left Turn						
	Through	717	665	92.7%	50.5	22.0	D
	Right Turn						
	Subtotal	717	665	92.7%	50.5	22.0	D
Total		1,169	1,009	86.3%	43.0	14.7	D

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	3.6	3.3	A
	Through	106	99	93.2%	10.9	2.3	B
	Right Turn	186	181	97.2%	8.7	2.1	A
	Subtotal	297	283	95.4%	9.4	2.0	A
SB	Left Turn	5	5	96.0%	4.7	3.4	A
	Through	80	74	93.0%	10.2	1.4	B
	Right Turn	43	40	92.1%	5.4	1.0	A
	Subtotal	128	119	92.8%	8.3	0.9	A
EB	Left Turn	102	100	98.0%	20.0	4.2	C
	Through	164	170	103.4%	20.6	3.0	C
	Right Turn	5	6	120.0%	9.9	13.1	A
	Subtotal	271	276	101.7%	20.3	3.3	C
WB	Left Turn	126	96	76.2%	8.5	2.0	A
	Through	90	73	81.3%	9.4	1.3	A
	Right Turn	5	4	72.0%	4.0	7.0	A
	Subtotal	221	173	78.2%	8.7	1.6	A
Total		917	850	92.7%	12.8	1.6	B

Intersection 58 **Hungtington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	104	85	81.5%	25.2	17.0	D
	Through						
	Right Turn	65	48	73.2%	20.4	17.2	C
	Subtotal	169	132	78.3%	23.6	17.0	C
EB	Left Turn	77	74	96.1%	7.8	2.2	A
	Through	278	278	100.1%	3.9	1.0	A
	Right Turn						
	Subtotal	355	352	99.3%	4.7	1.2	A
WB	Left Turn						
	Through	156	129	82.6%	1.7	0.4	A
	Right Turn	259	189	72.9%	0.9	0.4	A
	Subtotal	415	318	76.5%	1.2	0.3	A
Total		939	802	85.5%	6.7	4.1	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	16	104.0%	11.9	6.0	B
	Through	131	144	109.6%	12.3	1.9	B
	Right Turn	35	36	101.7%	11.0	3.2	B
	Subtotal	181	195	107.6%	12.0	1.8	B
SB	Left Turn	26	21	81.5%	14.4	3.2	B
	Through	6	5	80.0%	10.0	4.4	A
	Right Turn	9	7	80.0%	10.9	3.4	B
	Subtotal	41	33	81.0%	13.8	1.9	B
EB	Left Turn	50	44	88.8%	27.7	11.6	D
	Through	482	456	94.6%	26.2	10.3	D
	Right Turn	15	14	93.3%	23.8	17.4	C
	Subtotal	547	514	94.0%	26.2	10.5	D
WB	Left Turn	30	21	70.7%	16.0	7.0	C
	Through	397	304	76.7%	18.4	5.2	C
	Right Turn	5	6	112.0%	7.9	6.9	A
	Subtotal	432	331	76.7%	18.2	5.1	C
Total		1,201	1,074	89.4%	20.8	6.4	C

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	159	125	78.5%	39.4	9.7	D
	Through	321	237	73.9%	30.2	11.8	C
	Right Turn	28	24	85.7%	30.2	15.8	C
	Subtotal	508	386	76.0%	33.2	10.4	C
SB	Left Turn	197	157	79.6%	56.2	14.4	E
	Through	339	270	79.5%	33.3	11.2	C
	Right Turn	5	4	80.0%	22.6	20.3	C
	Subtotal	541	430	79.6%	41.6	12.5	D
EB	Left Turn	65	50	76.3%	59.5	22.2	E
	Through	278	269	96.7%	31.4	14.2	C
	Right Turn	200	190	95.0%	27.3	12.6	C
	Subtotal	543	508	93.6%	32.6	13.1	C
WB	Left Turn	52	38	73.8%	53.7	13.1	D
	Through	268	217	81.0%	38.6	15.0	D
	Right Turn	193	164	85.0%	32.0	14.5	C
	Subtotal	513	420	81.8%	37.4	14.0	D
Total		2,105	1,744	82.9%	36.3	5.4	D

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	244	221	90.5%	73.6	30.7	E
	Through	331	290	87.7%	57.0	28.8	E
	Right Turn						
	Subtotal	575	511	88.9%	64.2	29.6	E
SB	Left Turn						
	Through	229	192	84.0%	13.9	6.8	B
	Right Turn	149	123	82.4%	11.0	5.0	B
	Subtotal	378	315	83.4%	12.7	5.9	B
EB	Left Turn	214	186	86.7%	19.2	3.7	B
	Through						
	Right Turn	361	322	89.3%	13.1	5.0	B
	Subtotal	575	508	88.3%	15.4	4.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,528	1,334	87.3%	32.5	8.7	C

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	152	128	83.9%	71.2	17.1	E
	Through	473	377	79.7%	68.0	28.4	E
	Right Turn	163	133	81.7%	65.3	29.4	E
	Subtotal	788	638	80.9%	68.3	25.9	E
SB	Left Turn	26	20	76.9%	42.2	10.6	D
	Through	550	452	82.3%	24.3	3.9	C
	Right Turn	15	12	77.3%	21.4	12.0	C
	Subtotal	591	484	81.9%	25.0	3.7	C
EB	Left Turn	30	26	86.7%	41.2	23.6	D
	Through	216	217	100.4%	40.7	14.9	D
	Right Turn	186	182	97.6%	34.4	11.2	C
	Subtotal	432	424	98.2%	37.8	13.1	D
WB	Left Turn	202	150	74.5%	85.5	29.3	F
	Through	58	40	69.0%	79.6	30.8	E
	Right Turn	5	5	96.0%	62.5	46.8	E
	Subtotal	265	195	73.7%	84.4	29.1	F
Total		2,076	1,741	83.9%	49.9	10.3	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Baseline Plus Railyards SP**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	135	100	73.8%	86.4	57.2	F
	Through	610	558	91.5%	41.8	29.0	E
	Right Turn						
	Subtotal	745	658	88.3%	48.3	32.5	E
SB	Left Turn						
	Through	575	499	86.8%	3.7	1.0	A
	Right Turn	87	78	90.1%	7.6	5.3	A
	Subtotal	662	578	87.3%	4.2	1.6	A
EB	Left Turn						
	Through						
	Right Turn	268	220	82.2%	13.0	2.6	B
	Subtotal	268	220	82.2%	13.0	2.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,675	1,456	86.9%	24.2	10.3	C

FEHR PEERS

Sheet No 1 of 1

Project Medical Center / Stadium / Railyards SP EIR
Scenario Baseline Plus RSPU
Peak Hour PM

Major Street N 6th St
Minor Street South Park St

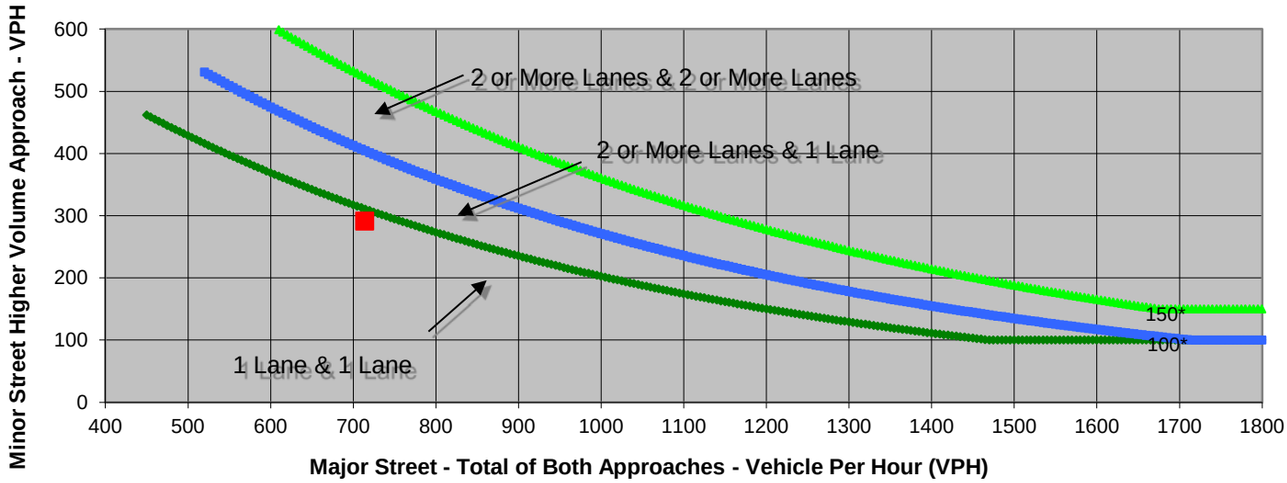
Turn Movement Volumes

	NB	SB	EB	WB
Left	50	1	146	87
Through	410	67	109	106
Right	135	51	36	3
Total	595	119	291	196

Major Street Direction

x North/South
East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street	Minor Street	Warrant Met
	N 6th St	South Park St	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**714**	**291**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	1,475	192	2,300	339	2,325	271	86%	1%
	Through/Right	2,725	975	365	2,200	535	2,200	317	0%	0%
SB	Left Turn	325	100	24	175	40	175	36	0%	0%
	Left/Through	1,500	175	17	225	30	225	34	0%	0%
	Right Turn	325	125	11	175	24	175	26	0%	0%
WB	Left Turn	1,275	100	22	175	44	175	49	0%	0%
	Through	275	100	25	175	55	175	50	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	250	12	325	12	300	5	0%	5%
	Through	325	25	8	50	22	50	22	0%	0%
NB	Left/Through	325	75	16	100	29	100	30	0%	0%
	Right Turn	1,175	75	10	125	21	125	28	0%	0%
WB	Through	225	125	24	200	53	175	52	0%	0%
	Right Turn	225	25	24	75	94	75	109	0%	0%
0										

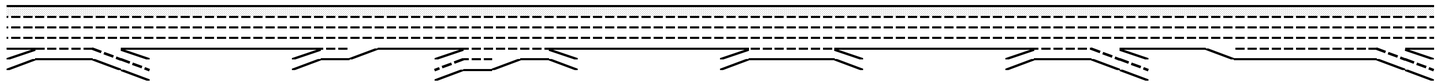
Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	425	75	750	85	725	14	0%	22%
	Through	600	425	74	775	99	725	33	0%	23%
	Through/Right	600	450	69	675	122	625	92	0%	9%
NB	Right Turn	1,025	50	11	100	29	100	30	0%	0%
NE	Shared	6,075	175	60	300	98	300	92	0%	0%
	Right Turn	6,075	25	0	25	0	25	0	0%	0%
	Right Turn	6,075	25	0	25	0	25	0	0%	0%
	Right Turns	350	75	15	125	30	100	32	0%	0%
SB	Left Turn	7,675	25	0	25	0	25	0	0%	0%
	Left/Through	7,675	25	0	25	0	25	0	0%	0%
	Left/Through	7,675	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

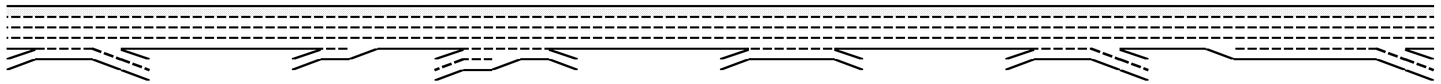
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	6,040	6,549	6,549	7,516	8,072	8,072	9,220	9,220	8,896	8,896
On Ramp Volume	1,070		967	1,061		2,025		796		
Off Ramp Volume	561			505		877		1,120		2,193
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	6,040	6,549	6,549	7,516	8,072	8,072	9,220	9,220	8,896	8,896
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	7,193	7,799	7,799	8,951	9,613	9,613	10,980	10,980	10,594	10,594
Flow (pcphpl)	1,798	1,950	1,950	2,238	2,403	2,403	2,745	2,745	2,649	2,119
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.77	0.83	0.83	0.95	1.02	1.02	1.17	1.17	1.13	0.90
Speed (mph)	62.8	60.7	60.7	55.0	-	-	-	-	-	57.7
Density (pcphpl)	28.7	32.1	32.1	40.6	-	-	-	-	-	36.7
LOS	D	D	D	E	F	F	F	F	F	E
Calculate Operations for Segment GP Lanes										
Flow (pcph)	8,456		8,822	10,147		11,777		11,909		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.72		0.94	0.86		1.00		1.01		
Flow Rate (pcphpl)	1,691		2,205	2,029		2,355		2,382		
Speed (mph)	63.8		55.8	59.4		-		-		
Density (pcphpl)	26.5		39.5	34.2		-		-		
LOS	D		E	D		F		F		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

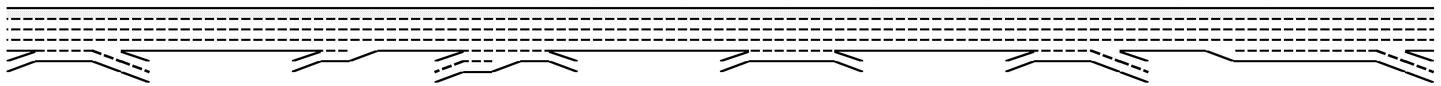
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,863			9,551		10,830		10,686		8,196
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.84			1.02		1.15		1.14		0.87
Flow Rate (pcphpl)	1,966			2,388		2,707		2,672		2,049
Speed (mph)	60.5			-		-		-		59.0
Density (pcphpl)	32.5			-		-		-		34.7
LOS	D			F		F		F		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

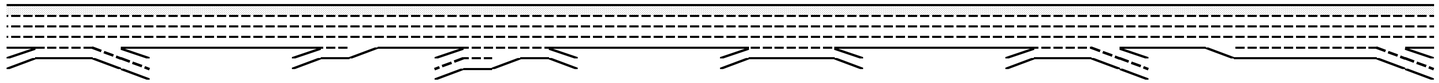
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	1,070		967	1,061		2,025		796		
PHF	0.86		0.96	0.9		0.95		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	1,263		1,022	1,197		2,164		929		
Flow Rate (pcphpl)	1,263		1,022	598		2,164		929		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.60		0.49	0.28		1.03		0.44		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

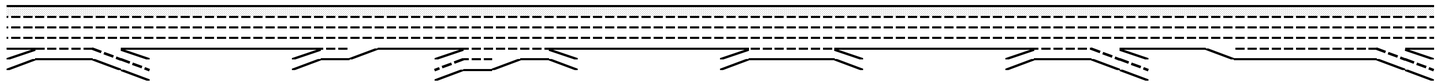
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	561			505		877		1,120		2,193
PHF	0.96			0.86		0.94		0.93		0.96
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	593			596		947		1,222		2,399
Flow Rate (pcphpl)	297			596		947		611		1,199
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.14			0.28		0.45		0.29		0.52
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,799							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.090							
v_{12} (pcph)			702							
v_3 (pcph)										
v_{34} (pcph)			7,097							
v_{12a} (pcph)			3,120							
v_{R12a} (pcph)			4,142							
Speed Index			0.53							
Area Speed			52.9							
Outer Lanes Volume			2,340							
Outer Lanes Speed			58.2							
Segment Speed			55.6							
v/c ratio			0.90							
Density			34.6							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

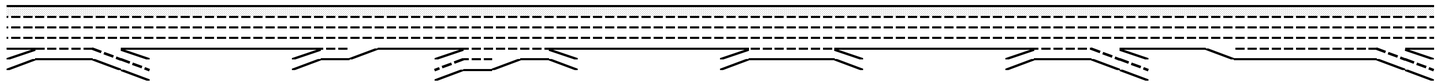
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										37.1
LOS										E
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)						1,020				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)						1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)						1,005				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)						1,074				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

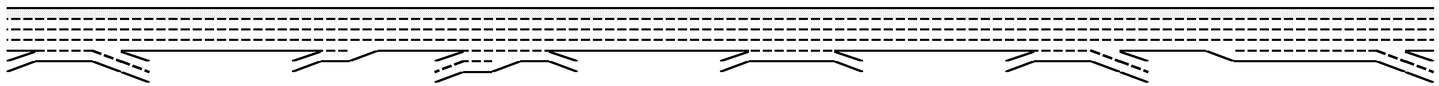
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)						-143				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)						-155				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)						8,215				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)						8,907				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

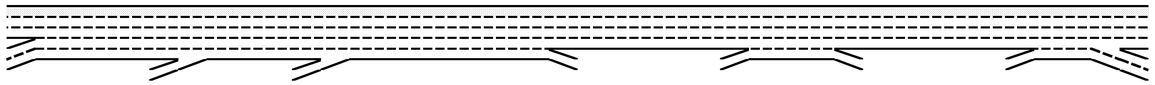
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type						One-sided				
Length						900				
Segment Lanes						6				
Weave Lanes						3				
Weave Flow (pcph)						919				
Non-Weave Flow						9,997				
Segment Flow						10,915				
Max Weave Length						1,821				
Length Check						OK				
Ideal Weave Capacity						2,280				
f_{HV}						0.974				
f_P						0.999				
Capacity Condition 1						13,299				
Capacity Condition 2						40,432				
v/c ratio						0.80				
Interchange Density						1				
Lane Changes On to ML						2				
Lane Changes ML to Off						0				
Lane Changes On to Off						0				
Min Lane Change Rate						2,148				
Weave LC Rate						2,075				
Non-Weave LC Rate 1						1,391				
Non-Weave LC Rate 2						3,918				
Non-Weave LC Rate 3						-165				
Segment LC Rate						3,467				
Weave Intensity Factor						0.655				
Weave Speed						45.2				
Non-Weave Speed						40.8				
Segment Speed						41.1				
Density						-				
LOS						F				
Summarize Segment Operations										
Segment v/c ratio		0.83	0.90		1.02	0.80	1.17		1.13	
Segment Density		32.1	34.6	-	-	-	-	-	-	37.1
Segment LOS		D	D	F	F	F	F	F	F	E
Over Capacity				Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Segment GP Lanes Exiting GP Lanes On Ramp Roadway	Entering GP Lanes	Entering GP Lanes Segment GP Lanes Exiting GP Lanes	Entering GP Lanes	
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

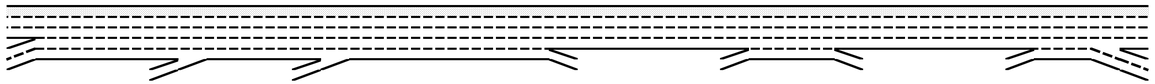
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	3,531	5,851	6,318	6,973	6,428	6,428	6,347	6,347
On Ramp Volume	2,320	467	655			833		927
Off Ramp Volume				545		914		803
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	3,531	5,851	6,318	6,973	6,428	6,428	6,347	6,347
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,855	6,387	6,897	7,612	7,017	7,017	6,929	6,929
Flow (pcphpl)	1,285	1,277	1,379	1,522	1,754	1,754	1,732	1,732
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.55	0.54	0.59	0.65	0.75	0.75	0.74	0.74
Speed (mph)	65.0	65.0	65.0	64.8	63.2	63.2	63.4	63.4
Density (pcphpl)	19.8	19.7	21.2	23.5	27.7	27.7	27.3	27.3
LOS	C	C	C	C	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	6,474	6,952	7,644			7,957		7,899
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.55	0.59	0.65			0.68		0.67
Flow Rate (pcphpl)	1,295	1,390	1,529			1,591		1,580
Speed (mph)	65.0	65.0	64.8			64.5		64.5
Density (pcphpl)	19.9	21.4	23.6			24.7		24.5
LOS	C	C	C			C		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

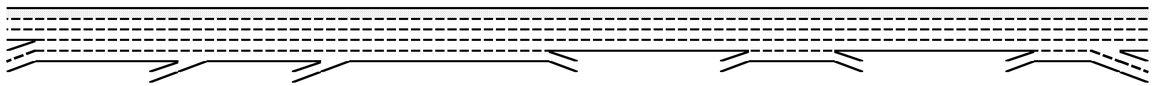
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				7,024		6,865		7,050
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.75		0.73		0.75
Flow Rate (pcphpl)				1,756		1,716		1,762
Speed (mph)				63.2		63.6		63.1
Density (pcphpl)				27.8		27.0		27.9
LOS				D		D		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8

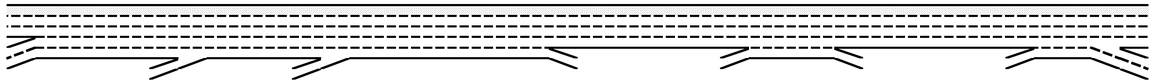


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,320	467	655			833		927
PHF	0.93	0.84	0.89			0.9		0.97
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,619	564	747			939		970
Flow Rate (pcphpl)	1,310	564	747			939		970
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.57	0.27	0.36			0.45		0.46

Location	1	2	3	4	5	6	7	8



Key

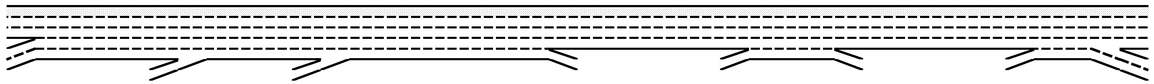
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				545		914		803
PHF				0.94		0.85		0.96
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				588		1,091		849
Flow Rate (pcphpl)				588		1,091		425
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.28		0.52		0.20
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		4,854	5,035					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.147	0.124					
v_{12} (pcph)		715	626					
v_3 (pcph)								
v_{34} (pcph)		4,140	4,408					
v_{12a} (pcph)		1,942	2,014					
v_{R12a} (pcph)		2,506	2,761					
Speed Index		0.36	0.36					
Area Speed		56.7	56.8					
Outer Lanes Volume		1,456	1,510					
Outer Lanes Speed		61.6	61.4					
Segment Speed		59.2	59.1					
v/c ratio		0.54	0.60					
Density		24.1	24.9					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

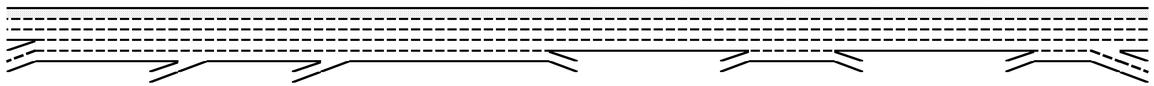
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				6,090				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.581				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,987				
v_3 (pcph)								
v_{34} (pcph)				3,103				
v_{12a} (pcph)				2,987				
Speed Index				0.35				
Area Speed				56.9				
Outer Lanes Volume				1,551				
Outer Lanes Speed				69.2				
Segment Speed				62.6				
v/c ratio				0.68				
Density				23.2				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

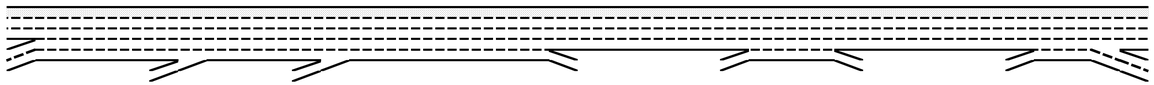
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Railyards Specific Plan
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

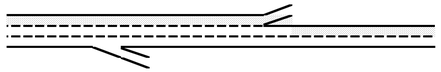
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.55	0.54	0.60	0.68	0.75		0.74	
Segment Density	19.9	24.1	24.9	23.2	27.7		27.3	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: PM Peak Hour

Location	1	2	3

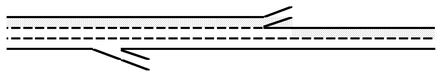


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	5,155	4,476	4,039
On Ramp Volume			
Off Ramp Volume	679	437	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	5,155	4,476	4,039
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	5,566	4,833	4,361
Flow (pcphpl)	1,855	1,611	2,181
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.79	0.67	0.91
Speed (mph)	62.1	68.0	58.8
Density (pcphpl)	29.9	23.7	37.1
LOS	D	C	E
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

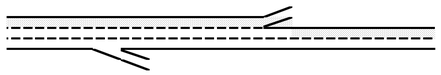


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	4,833	4,361	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.69	0.91	
Flow Rate (pcphpl)	1,611	2,181	
Speed (mph)	64.4	58.8	
Density (pcphpl)	25.0	37.1	
LOS	C	E	

Location	1	2	3



Key

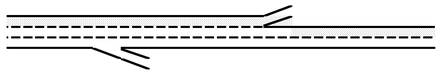
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: PM Peak Hour

Location	1	2	3

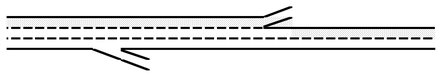


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	679	437	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	733	472	
Flow Rate (pcphpl)	733	472	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.35	0.24	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		733	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

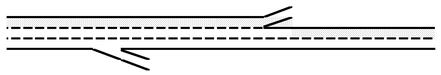


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	5,566		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.587		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.587		
v_{12} (pcph)	3,571		
v_3 (pcph)	1,996		
v_{34} (pcph)			
v_{12a} (pcph)	3,571		
Speed Index	0.36		
Area Speed	56.6		
Outer Lanes Volume	1,996		
Outer Lanes Speed	67.4		
Segment Speed	60.1		
v/c ratio	0.81		
Density	33.6		
LOS	D		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

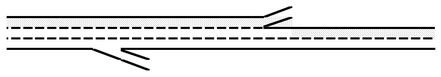


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

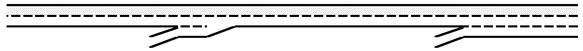
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.81	0.67	0.91
Segment Density	33.6	23.7	37.1
Segment LOS	D	C	E
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

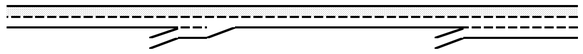


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	1,943	1,943	2,118	2,118
On Ramp Volume		175		293
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	1,943	1,943	2,118	2,118
PHF	0.97	0.97	0.97	0.97
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,033	2,033	2,216	2,216
Flow (pcphpl)	1,017	1,017	1,108	739
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.45	0.43	0.47	0.31
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	18.5	15.6	17.0	11.4
LOS	C	B	B	B
Operations for Segment GP Lanes				
Flow (pcph)		2,216		2,523
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.47		0.36
Flow Rate (pcphpl)		1,108		841
Speed (mph)		65.0		65.0
Density (pcphpl)		17.0		12.9
LOS		B		B

Location	1	2	3	4

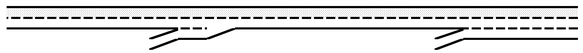


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

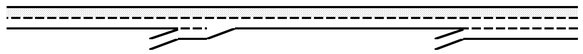


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		175		293
PHF		0.97		0.97
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		183		307
Flow Rate (pcphpl)		183		307
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.09		0.15

Location	1	2	3	4

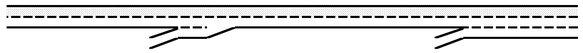


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,033		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,033		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,033		
v_{R12a} (pcph)		2,216		
Speed Index		0.29		
Area Speed		58.4		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.4		
v/c ratio		0.48		
Density		17.9		
LOS		B		

Location	1	2	3	4

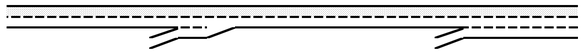


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

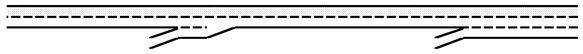


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

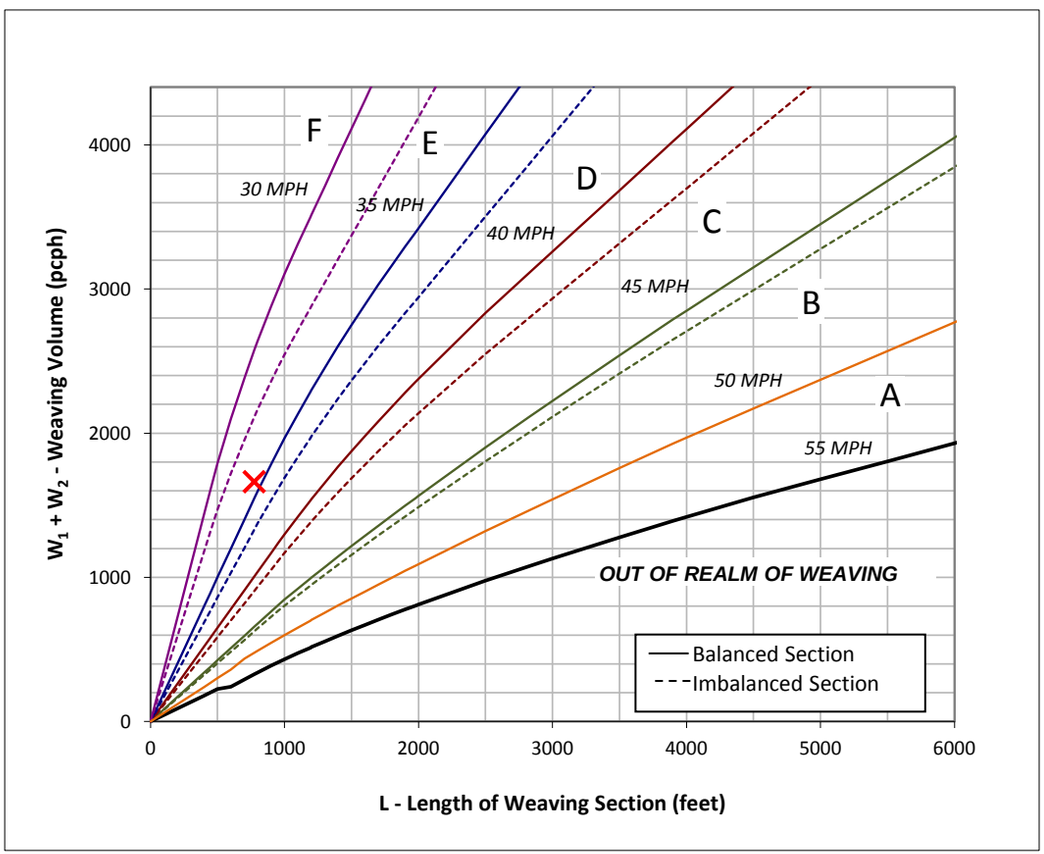
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.45	0.48	0.47	0.36
Segment Density	18.5	17.9	17.0	12.9
Segment LOS	C	B	B	B
Over Capacity				

Leisch Method for Weaving Analysis

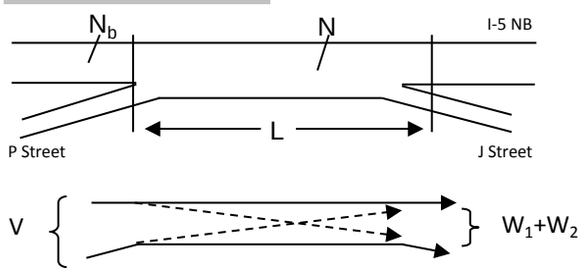
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,110	Volume (vph)*	1,070	Volume (vph)*	561
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,451	Volume (pcph)	1,091	Volume (pcph)	572



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	34.4
4. Weaving Intensity Factor (k)	2.82
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,698
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

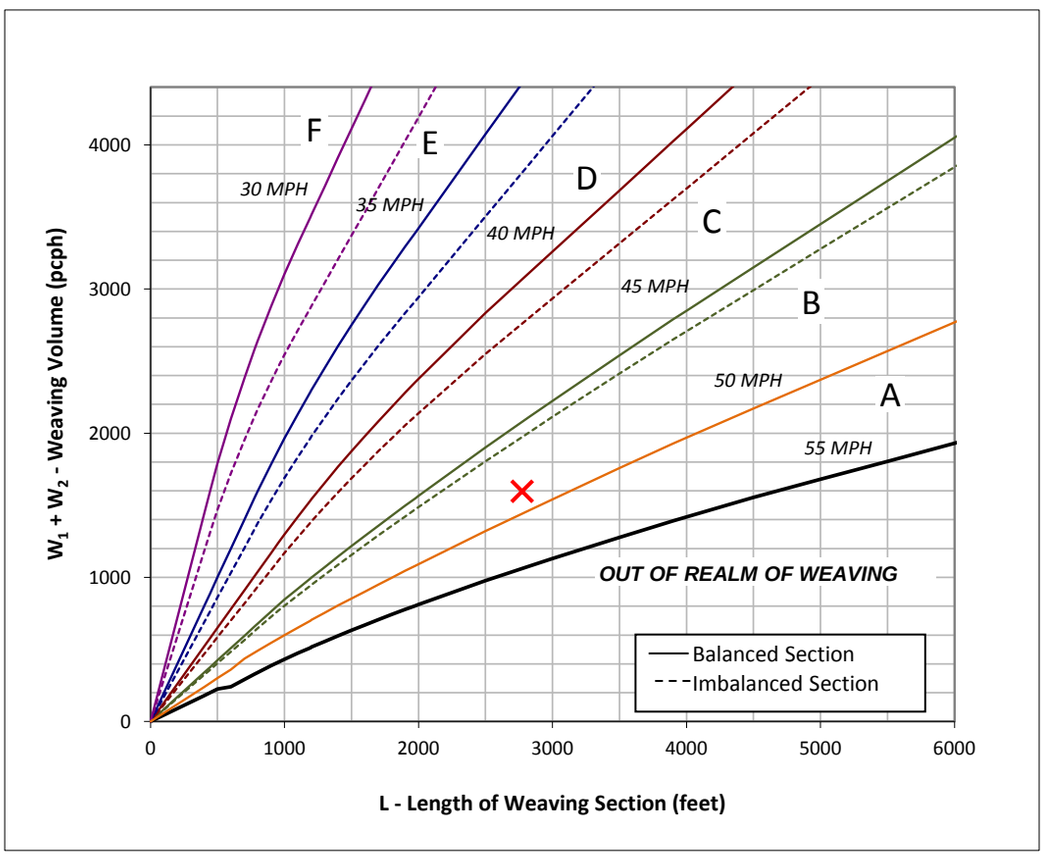
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,577	Volume (vph)*	1,061	Volume (vph)*	505
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,989	Volume (pcph)	1,082	Volume (pcph)	515



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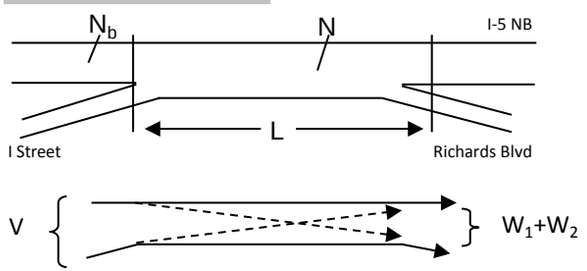


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **48.5**
4. Weaving Intensity Factor (k) **1.16**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,815**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

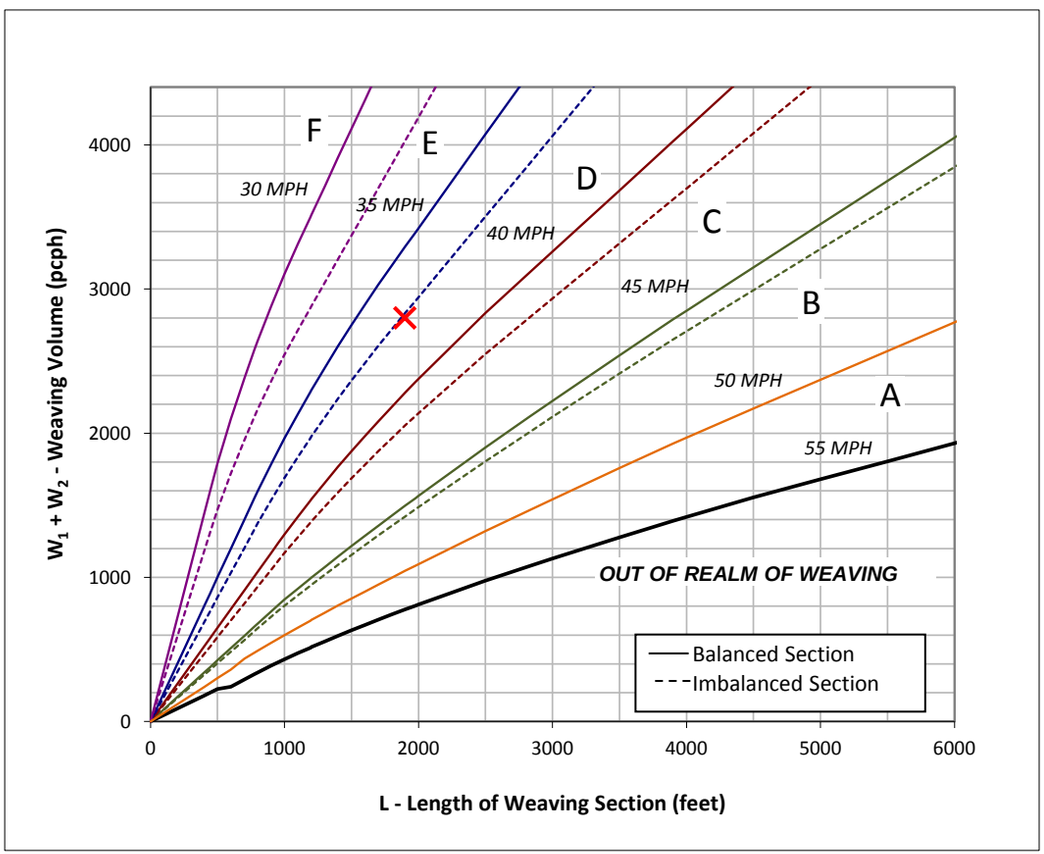
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	10,097	Volume (vph)*	1,924	Volume (vph)*	820
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,582	Volume (pcph)	1,962	Volume (pcph)	836



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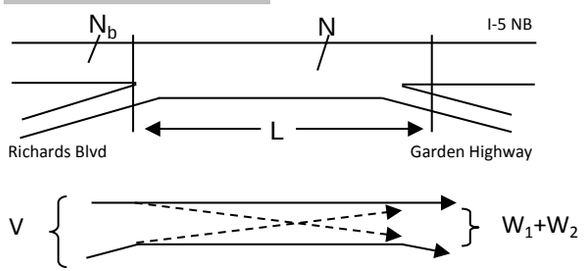


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	35.2
4. Weaving Intensity Factor (k)	2.78
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,415
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

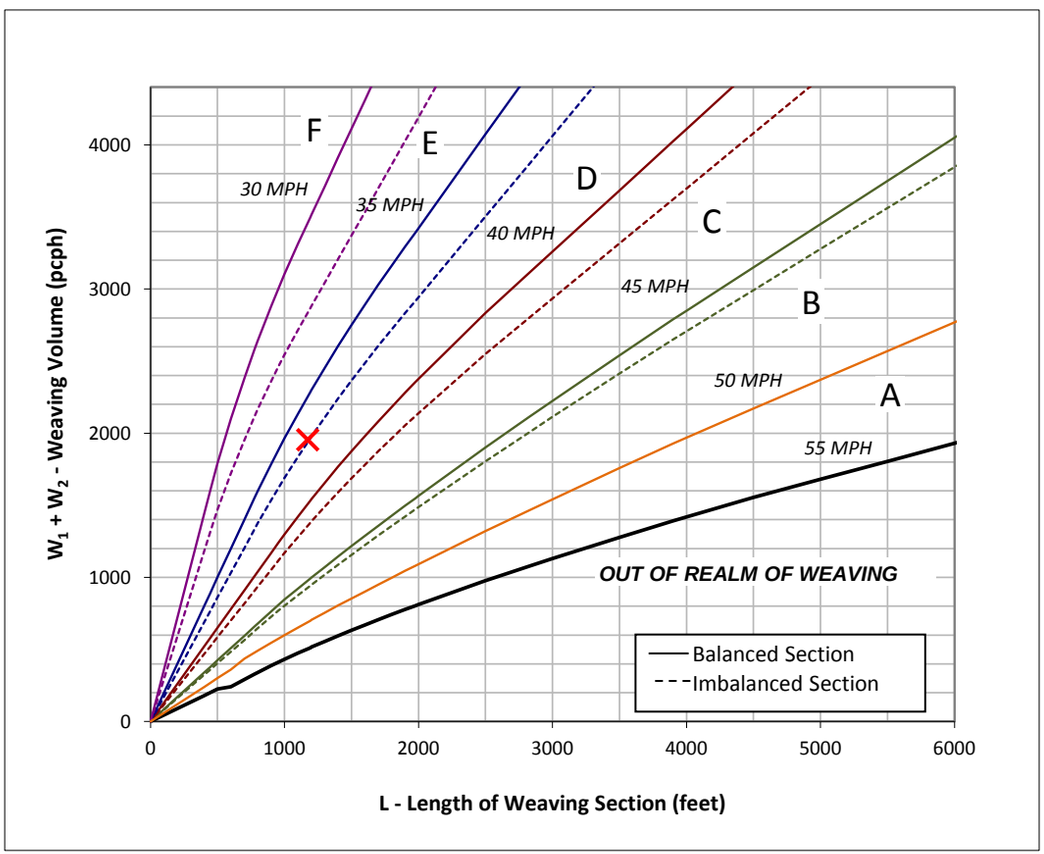
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	10,016	Volume (vph)*	796	Volume (vph)*	1,120
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,497	Volume (pcph)	812	Volume (pcph)	1,142



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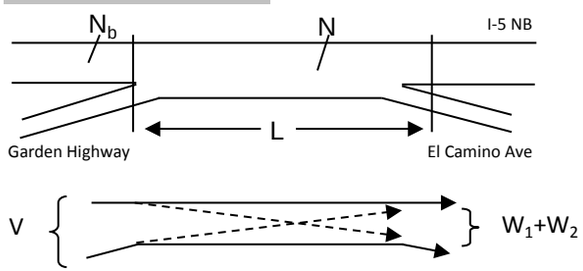


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.0
4. Weaving Intensity Factor (k)	2.70
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,375
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

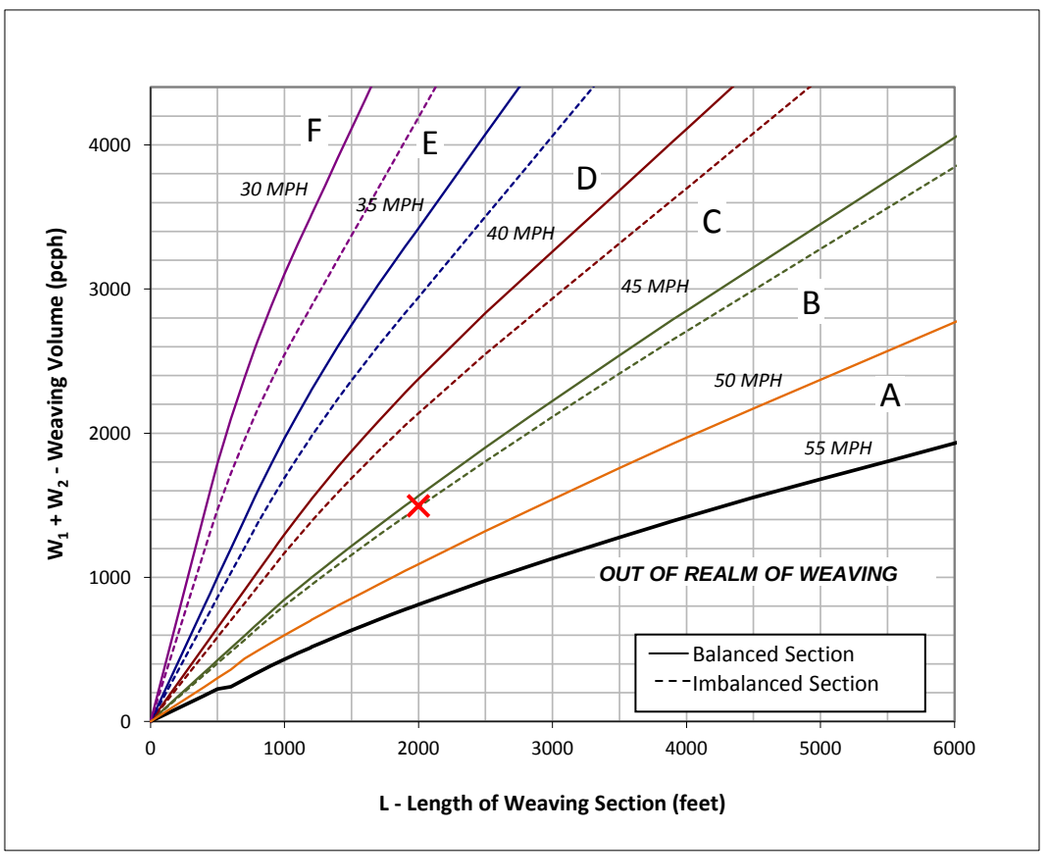
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,261	Volume (vph)*	734	Volume (vph)*	732
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,610	Volume (pcph)	749	Volume (pcph)	747



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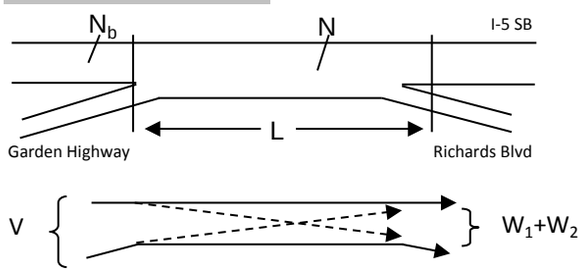


Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	44.9
4. Weaving Intensity Factor (k)	1.85
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,649
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

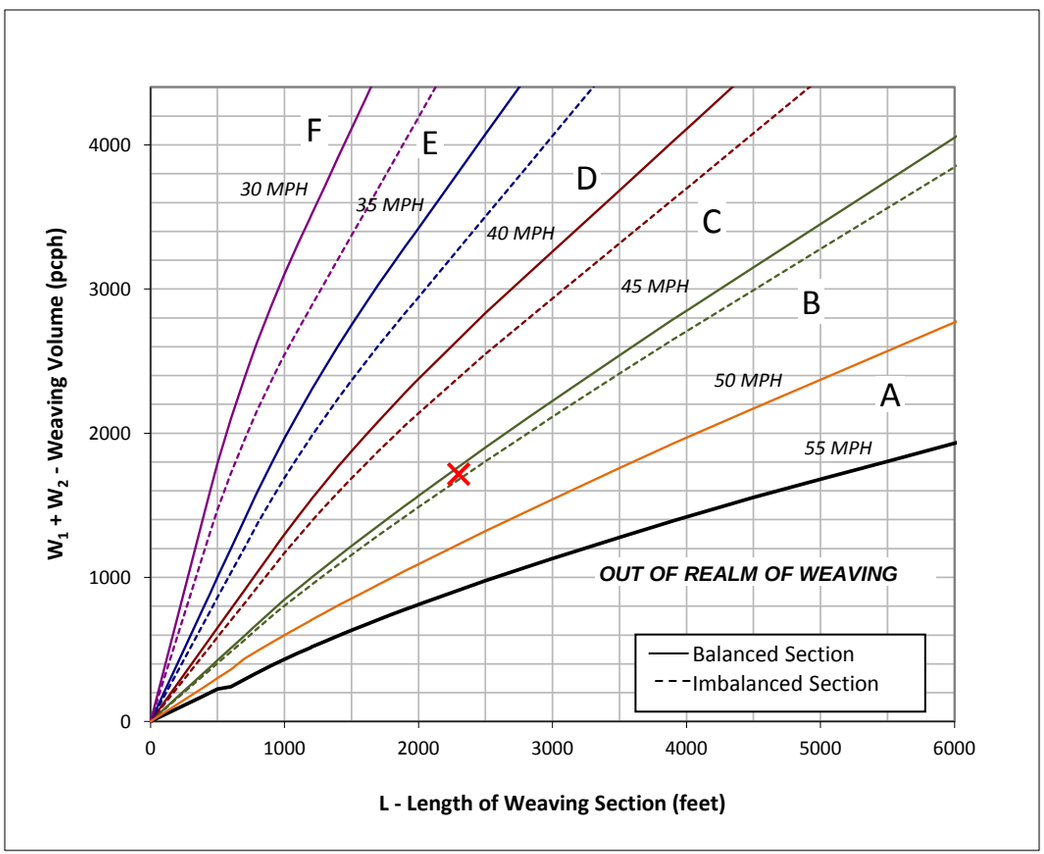
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

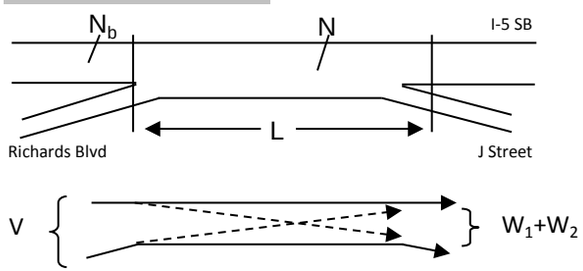
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU PM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,274	Volume (vph)*	898	Volume (vph)*	785
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,623	Volume (pcph)	916	Volume (pcph)	801



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	45.5
4. Weaving Intensity Factor (k)	1.72
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,639
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	983	853	86.8%	72.1	22.6	E
	Through	3	2	80.0%	49.6	53.4	D
	Right Turn	354	325	91.9%	37.6	17.4	D
	Subtotal	1,340	1,180	88.1%	62.8	21.4	E
EB	Left Turn						
	Through	282	255	90.5%	53.9	25.6	D
	Right Turn	140	124	88.3%	33.7	29.4	C
	Subtotal	422	379	89.8%	47.3	26.2	D
WB	Left Turn	326	222	68.0%	9.7	3.0	A
	Through	371	324	87.3%	7.7	1.6	A
	Right Turn						
	Subtotal	697	546	78.3%	8.5	1.6	A
Total		2,459	2,105	85.6%	45.8	15.9	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	266	240	90.4%	29.2	9.5	C
	Through	1	1	120.0%	6.9	12.4	A
	Right Turn	882	846	95.9%	45.9	16.3	D
	Subtotal	1,149	1,088	94.7%	42.2	15.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	106	108	101.5%	14.6	3.0	B
	Through	1,159	964	83.2%	43.5	13.9	D
	Right Turn						
	Subtotal	1,265	1,072	84.7%	40.6	12.5	D
WB	Left Turn						
	Through	431	318	73.8%	9.7	2.3	A
	Right Turn	875	676	77.3%	3.9	0.2	A
	Subtotal	1,306	994	76.1%	5.8	0.8	A
Total		3,720	3,154	84.8%	30.1	8.1	C

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	665	600	90.3%	118.9	25.5	F
	Through	11	11	98.2%	107.7	30.0	F
	Right Turn	3	1	40.0%	60.6	17.4	E
	Subtotal	679	612	90.2%	118.9	25.4	F
SB	Left Turn	23	19	83.5%	33.9	11.3	C
	Through	7	7	97.1%	38.3	14.3	D
	Right Turn	55	48	88.0%	8.8	1.7	A
	Subtotal	85	74	87.5%	18.0	4.3	B
EB	Left Turn	31	27	86.5%	38.1	10.9	D
	Through	1,653	1,386	83.8%	21.9	2.4	C
	Right Turn	357	339	95.0%	2.7	0.2	A
	Subtotal	2,041	1,752	85.8%	18.4	2.0	B
WB	Left Turn	16	9	57.5%	48.8	14.3	D
	Through	586	367	62.7%	18.5	3.9	B
	Right Turn	16	12	72.5%	15.0	11.4	B
	Subtotal	618	388	62.8%	19.1	3.9	B
Total		3,423	2,827	82.6%	40.1	4.8	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	10	80.0%	42.4	11.1	D
	Through						
	Right Turn	5	4	80.0%	13.3	15.6	B
	Subtotal	18	14	80.0%	35.5	11.0	D
SB	Left Turn	7	7	97.1%	31.4	23.4	C
	Through						
	Right Turn	11	10	87.3%	4.1	2.9	A
	Subtotal	18	16	91.1%	20.9	19.6	C
EB	Left Turn	11	11	101.8%	38.7	19.6	D
	Through	1,662	1,412	84.9%	3.8	0.2	A
	Right Turn	6	7	113.3%	3.3	1.9	A
	Subtotal	1,679	1,430	85.1%	4.0	0.3	A
WB	Left Turn						
	Through	594	387	65.2%	2.5	0.6	A
	Right Turn	11	9	83.6%	1.9	1.3	A
	Subtotal	605	396	65.5%	2.5	0.6	A
Total		2,320	1,857	80.0%	4.1	0.3	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	119	111	93.4%	46.1	4.5	D
	Through	22	26	116.4%	36.8	12.2	D
	Right Turn	18	18	102.2%	27.1	10.8	C
	Subtotal	159	155	97.6%	42.9	3.8	D
SB	Left Turn	10	10	100.0%	18.3	10.9	B
	Through	18	23	128.9%	33.6	12.3	C
	Right Turn	9	9	102.2%	12.9	12.8	B
	Subtotal	37	42	114.6%	26.0	7.0	C
EB	Left Turn	6	4	73.3%	35.7	21.7	D
	Through	1,527	1,277	83.6%	12.7	1.0	B
	Right Turn	141	124	87.7%	12.0	2.6	B
	Subtotal	1,674	1,405	83.9%	12.7	1.0	B
WB	Left Turn	7	4	57.1%	35.9	30.3	D
	Through	477	279	58.5%	6.5	1.6	A
	Right Turn	5	4	72.0%	3.5	4.2	A
	Subtotal	489	287	58.7%	7.2	1.5	A
Total		2,359	1,889	80.1%	14.7	1.1	B

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through						
	Right Turn	4	7	180.0%	4.8	4.8	A
	Subtotal	5	7	144.0%	4.8	4.8	A
SB	Left Turn	7	6	85.7%	29.8	22.2	C
	Through						
	Right Turn	10	11	112.0%	4.9	2.0	A
	Subtotal	17	17	101.2%	16.1	9.0	B
EB	Left Turn	8	4	55.0%	28.4	23.1	C
	Through	1,544	1,291	83.6%	5.7	2.1	A
	Right Turn	3	2	66.7%	1.0	1.7	A
	Subtotal	1,555	1,297	83.4%	5.8	2.1	A
WB	Left Turn	3	1	40.0%	16.1	28.3	B
	Through	478	281	58.8%	6.2	1.5	A
	Right Turn	7	4	51.4%	4.8	1.9	A
	Subtotal	488	286	58.6%	6.5	1.6	A
Total		2,065	1,608	77.8%	6.1	1.9	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	69	99.7%	50.8	17.2	D
	Through	148	140	94.6%	75.2	29.1	E
	Right Turn	281	261	92.8%	65.7	37.7	E
	Subtotal	498	470	94.3%	66.3	31.2	E
SB	Left Turn	8	8	95.0%	73.9	46.2	E
	Through	21	24	112.4%	44.9	25.2	D
	Right Turn	12	15	126.7%	48.5	19.0	D
	Subtotal	41	46	113.2%	50.8	18.9	D
EB	Left Turn	413	344	83.4%	79.4	30.5	E
	Through	579	462	79.9%	44.5	13.5	D
	Right Turn	211	170	80.4%	38.1	11.8	D
	Subtotal	1,203	976	81.2%	55.5	17.7	E
WB	Left Turn	417	248	59.4%	107.9	26.1	F
	Through	829	449	54.2%	91.4	27.4	F
	Right Turn	348	186	53.6%	97.4	26.5	F
	Subtotal	1,594	883	55.4%	97.4	25.8	F
Total		3,336	2,376	71.2%	72.4	17.7	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	229	227	99.0%	36.4	5.1	D
	Through	6	5	80.0%	23.9	20.0	C
	Right Turn	305	291	95.5%	12.3	2.5	B
	Subtotal	540	523	96.8%	22.9	3.8	C
SB	Left Turn	8	10	130.0%	31.6	16.3	C
	Through	8	8	105.0%	18.9	16.6	B
	Right Turn	56	59	105.0%	14.7	3.7	B
	Subtotal	72	78	107.8%	19.3	2.2	B
EB	Left Turn	12	6	53.3%	34.2	12.3	C
	Through	679	569	83.8%	13.2	3.1	B
	Right Turn	67	55	82.4%	5.5	0.8	A
	Subtotal	758	630	83.2%	12.8	2.8	B
WB	Left Turn	74	44	58.9%	36.8	9.0	D
	Through	1,749	1,160	66.3%	14.2	9.3	B
	Right Turn	8	4	55.0%	15.3	30.1	B
	Subtotal	1,831	1,208	66.0%	15.0	9.4	B
Total		3,201	2,439	76.2%	16.1	4.4	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	14	82.4%	34.3	18.9	C
	Through	5	4	80.0%	24.9	31.3	C
	Right Turn	24	32	131.7%	6.8	3.3	A
	Subtotal	46	50	107.8%	16.4	5.7	B
SB	Left Turn	8	8	95.0%	38.1	24.3	D
	Through	6	6	100.0%	21.1	20.4	C
	Right Turn	14	15	108.6%	10.4	7.7	B
	Subtotal	28	29	102.9%	25.1	9.1	C
EB	Left Turn	7	4	51.4%	43.4	40.0	D
	Through	966	836	86.6%	9.2	3.7	A
	Right Turn	19	26	134.7%	6.4	3.2	A
	Subtotal	992	866	87.3%	9.4	3.9	A
WB	Left Turn	15	9	61.3%	31.9	21.2	C
	Through	1,800	1,300	72.2%	8.0	2.1	A
	Right Turn	1	0	40.0%	0.5	1.5	A
	Subtotal	1,816	1,310	72.1%	8.2	2.3	A
Total		2,882	2,254	78.2%	9.0	2.8	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	53	46	86.0%	74.6	16.2	E
	Through	1,264	1,161	91.8%	25.5	2.2	C
	Right Turn	2	4	180.0%	15.0	23.3	B
	Subtotal	1,319	1,210	91.7%	27.3	2.6	C
SB	Left Turn						
	Through	1,727	1,456	84.3%	87.5	10.1	F
	Right Turn	1,801	1,299	72.1%	144.1	11.2	F
	Subtotal	3,528	2,755	78.1%	114.2	10.0	F
EB	Left Turn	837	663	79.2%	69.2	19.7	E
	Through						
	Right Turn	23	18	78.3%	2.7	0.5	A
	Subtotal	860	681	79.2%	67.4	18.9	E
WB	Left Turn						
	Through	16	17	105.0%	68.1	17.8	E
	Right Turn						
	Subtotal	16	17	105.0%	68.1	17.8	E
Total		5,723	4,663	81.5%	84.6	6.4	F

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	642	571	88.9%	56.5	19.6	F
	Right Turn						
	Subtotal	642	571	88.9%	56.5	19.6	F
SB	Left Turn	66	59	89.1%	5.6	0.6	A
	Through	314	295	94.0%	5.3	0.2	A
	Right Turn						
	Subtotal	380	354	93.2%	5.4	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	1	40.0%	1.9	4.1	A
	Through						
	Right Turn	37	35	94.1%	4.2	1.5	A
	Subtotal	39	36	91.3%	4.3	1.6	A
Total		1,061	960	90.5%	35.3	10.4	E

Intersection 12 **N 16th St/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	28	90.3%	9.0	3.1	A
	Through	149	146	98.0%	10.0	1.8	B
	Right Turn						
	Subtotal	180	174	96.7%	9.9	1.4	A
SB	Left Turn						
	Through	158	140	88.4%	6.6	0.4	A
	Right Turn	8	8	100.0%	4.4	2.2	A
	Subtotal	166	148	88.9%	6.5	0.4	A
EB	Left Turn	10	11	112.0%	3.6	1.4	A
	Through						
	Right Turn	56	50	89.3%	3.0	0.6	A
	Subtotal	66	61	92.7%	3.2	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		412	383	92.9%	7.6	0.8	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	12	100.0%	6.0	3.9	A
	Through	5	6	120.0%	2.5	2.7	A
	Right Turn						
	Subtotal	17	18	105.9%	5.1	2.2	A
SB	Left Turn						
	Through	7	8	120.0%	9.5	8.0	A
	Right Turn	9	8	93.3%	3.6	2.2	A
	Subtotal	16	17	105.0%	6.6	3.3	A
EB	Left Turn						
	Through	4	4	110.0%	10.3	11.5	B
	Right Turn						
	Subtotal	4	4	110.0%	10.3	11.5	B
WB	Left Turn	20	17	86.0%	5.0	2.8	A
	Through	1,728	1,447	83.7%	6.6	1.8	A
	Right Turn	2	2	100.0%	2.8	1.6	A
	Subtotal	1,750	1,466	83.8%	6.6	1.8	A
Total		1,787	1,505	84.2%	6.6	1.8	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	373	342	91.8%	19.4	2.6	B
	Right Turn	13	14	107.7%	16.6	8.8	B
	Subtotal	386	356	92.3%	19.3	2.6	B
SB	Left Turn	214	219	102.2%	26.4	2.5	C
	Through	320	315	98.4%	11.8	1.3	B
	Right Turn						
	Subtotal	534	534	99.9%	17.8	1.5	B
EB	Left Turn	1	1	80.0%	17.5	45.9	B
	Through	1	1	80.0%	0.2	0.4	A
	Right Turn	2	3	140.0%	3.7	4.3	A
	Subtotal	4	4	110.0%	19.1	44.9	B
WB	Left Turn	14	20	140.0%	20.4	6.9	C
	Through	3	5	173.3%	7.1	4.8	A
	Right Turn	375	376	100.4%	11.3	2.6	B
	Subtotal	392	401	102.3%	11.7	2.7	B
Total		1,316	1,296	98.4%	16.4	1.2	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	63	90.3%	13.3	2.4	B
	Through	58	59	102.1%	13.3	1.6	B
	Right Turn	8	11	135.0%	10.1	3.7	B
	Subtotal	136	133	97.9%	13.0	1.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	42	41	97.1%	15.5	5.2	C
	Through	206	219	106.4%	14.6	2.9	B
	Right Turn						
	Subtotal	248	260	104.8%	14.7	2.8	B
WB	Left Turn						
	Through	344	365	106.2%	15.0	3.2	C
	Right Turn	3	4	120.0%	9.3	9.9	A
	Subtotal	347	369	106.3%	15.0	3.1	B
Total		731	762	104.2%	14.5	2.2	B

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	120.0%	6.5	10.6	A
	Through	143	116	80.8%	13.2	4.0	B
	Right Turn						
	Subtotal	144	117	81.1%	13.2	3.9	B
SB	Left Turn						
	Through	326	334	102.6%	11.6	2.7	B
	Right Turn	10	8	76.0%	7.0	6.8	A
	Subtotal	336	342	101.8%	11.6	2.7	B
EB	Left Turn	43	29	67.9%	20.5	3.5	C
	Through						
	Right Turn	294	240	81.8%	15.0	1.9	B
	Subtotal	337	270	80.0%	15.6	1.9	B
WB	Left Turn	165	164	99.4%	26.1	5.3	C
	Through	573	542	94.5%	21.0	4.9	C
	Right Turn	195	209	107.1%	10.8	2.6	B
	Subtotal	933	914	98.0%	19.6	4.3	B
Total		1,750	1,643	93.9%	16.8	3.0	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	8	63.3%	21.6	15.3	C
	Through	820	590	72.0%	7.1	2.0	A
	Right Turn	341	245	71.8%	4.7	1.2	A
	Subtotal	1,173	843	71.8%	6.5	1.8	A
SB	Left Turn	5	3	64.0%	43.9	44.4	D
	Through	635	450	70.9%	58.6	23.3	E
	Right Turn	5	2	48.0%	27.7	31.1	C
	Subtotal	645	456	70.6%	58.5	23.4	E
EB	Left Turn	5	4	80.0%	24.5	14.8	C
	Through	15	11	72.0%	12.3	11.2	B
	Right Turn	5	5	96.0%	9.8	13.0	A
	Subtotal	25	20	78.4%	17.0	6.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,843	1,318	71.5%	24.1	5.8	C

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	356	254	71.5%	21.9	1.8	C
	Right Turn	183	138	75.6%	10.1	1.4	B
	Subtotal	539	393	72.9%	17.7	1.7	B
SB	Left Turn	143	140	97.6%	37.4	13.6	D
	Through	268	261	97.5%	21.9	2.4	C
	Right Turn						
	Subtotal	411	401	97.5%	27.3	6.4	C
EB	Left Turn	65	44	67.7%	12.8	2.7	B
	Through	280	199	71.0%	10.4	1.0	B
	Right Turn	16	16	102.5%	7.1	1.5	A
	Subtotal	361	259	71.8%	10.6	1.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,311	1,053	80.3%	19.6	2.6	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	230	223	96.9%	14.8	2.1	B
	Through	391	379	96.9%	11.7	1.0	B
	Right Turn						
	Subtotal	621	602	96.9%	12.8	1.1	B
EB	Left Turn	212	172	81.3%	8.4	1.5	A
	Through	327	259	79.3%	8.0	1.1	A
	Right Turn	80	60	74.5%	5.5	1.3	A
	Subtotal	619	491	79.4%	7.9	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,240	1,093	88.1%	10.6	0.7	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	478	483	101.0%	8.5	0.8	A
	Right Turn	98	104	106.1%	7.8	0.8	A
	Subtotal	576	587	101.9%	8.4	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	43	40	93.0%	6.6	2.0	A
	Through	430	372	86.5%	8.0	0.8	A
	Right Turn						
	Subtotal	473	412	87.1%	7.9	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,049	999	95.2%	8.2	0.5	A

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	72	55	76.7%	34.1	9.7	C
	Through	1,103	764	69.3%	11.2	2.6	B
	Right Turn						
	Subtotal	1,175	819	69.7%	12.9	2.5	B
SB	Left Turn						
	Through						
	Right Turn	701	474	67.6%	57.5	25.0	E
	Subtotal	701	474	67.6%	57.5	25.0	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,205	1,145	95.0%	14.5	5.1	B
	Right Turn	43	44	103.3%	6.6	3.1	A
	Subtotal	1,248	1,189	95.3%	14.3	4.8	B
Total		3,124	2,482	79.4%	21.7	5.3	C

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	10	76.9%	16.7	8.3	B
	Through	434	284	65.5%	14.6	0.9	B
	Right Turn						
	Subtotal	447	294	65.9%	14.7	1.0	B
SB	Left Turn						
	Through	48	42	88.3%	15.1	2.6	B
	Right Turn	236	235	99.5%	7.9	0.8	A
	Subtotal	284	277	97.6%	9.0	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	8	100.0%	9.8	10.9	A
	Through	999	958	95.9%	12.2	1.4	B
	Right Turn	105	107	102.1%	16.1	2.5	B
	Subtotal	1,112	1,073	96.5%	12.5	1.4	B
Total		1,843	1,645	89.2%	12.3	0.9	B

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	381	354	92.8%	4.8	1.2	A
	Right Turn	90	83	92.4%	3.6	1.5	A
	Subtotal	471	437	92.7%	4.6	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	36	33	92.2%	7.2	1.9	A
	Through	1,022	1,003	98.2%	8.2	1.6	A
	Right Turn						
	Subtotal	1,058	1,036	98.0%	8.1	1.6	A
Total		1,529	1,473	96.4%	7.1	1.0	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	158	149	94.4%	9.1	1.7	A
	Through	484	497	102.7%	9.3	0.9	A
	Right Turn						
	Subtotal	642	646	100.7%	9.3	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	900	886	98.5%	9.7	0.7	A
	Right Turn	92	90	98.3%	7.9	2.1	A
	Subtotal	992	977	98.5%	9.5	0.8	A
Total		1,634	1,623	99.3%	9.4	0.8	A

Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	1	24.0%	190.4	177.8	F
	Through	940	492	52.3%	188.1	24.5	F
	Right Turn	21	18	85.7%	111.0	51.6	F
	Subtotal	966	511	52.9%	185.7	24.9	F
SB	Left Turn	187	107	57.1%	212.3	41.6	F
	Through	179	98	55.0%	250.7	44.5	F
	Right Turn						
	Subtotal	366	205	56.1%	229.9	30.4	F
EB	Left Turn	5	5	96.0%	101.2	101.1	F
	Through	518	438	84.6%	95.2	32.2	F
	Right Turn	125	133	106.6%	33.5	8.6	C
	Subtotal	648	576	88.9%	81.6	25.6	F
NB	Left Turn						
	Through						
	Right Turn	68	66	97.1%	5.4	1.5	A
	Subtotal	68	66	97.1%	5.4	1.5	A
Total		2,048	1,358	66.3%	138.8	18.1	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	314	317	101.0%	36.5	15.2	D
	Right Turn	304	316	103.8%	32.4	14.7	C
	Subtotal	618	633	102.4%	34.5	14.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	861	501	58.2%	64.7	4.6	E
	Through	855	581	67.9%	25.9	1.8	C
	Right Turn	26	20	75.4%	6.7	4.6	A
	Subtotal	1,742	1,101	63.2%	43.2	2.2	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,360	1,734	73.5%	40.0	5.1	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	40	38	94.0%	7.6	3.2	A
	Through	377	347	92.0%	11.6	1.3	B
	Right Turn						
	Subtotal	417	384	92.2%	11.2	1.2	B
EB	Left Turn						
	Through	647	553	85.5%	26.7	2.8	C
	Right Turn	109	98	89.5%	11.8	2.3	B
	Subtotal	756	651	86.1%	24.5	2.5	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,173	1,035	88.3%	19.5	1.5	B

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	63	63	100.3%	23.1	4.1	C
	Through	90	88	98.2%	12.1	2.5	B
	Right Turn	23	25	109.6%	2.6	0.8	A
	Subtotal	176	177	100.5%	14.8	2.1	B
SB	Left Turn	48	49	102.5%	27.2	5.1	C
	Through	54	55	102.2%	13.1	5.2	B
	Right Turn	11	8	69.1%	2.8	3.7	A
	Subtotal	113	112	99.1%	18.9	4.6	B
EB	Left Turn	7	6	91.4%	30.4	26.6	C
	Through	225	234	103.8%	16.7	2.2	B
	Right Turn	32	29	91.3%	7.1	5.1	A
	Subtotal	264	269	102.0%	16.0	2.4	B
WB	Left Turn	74	60	81.1%	25.8	6.2	C
	Through	223	189	84.7%	16.4	2.8	B
	Right Turn	55	45	81.5%	4.1	0.7	A
	Subtotal	352	294	83.4%	16.3	2.4	B
Total		905	852	94.1%	16.3	1.3	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	8	84.4%	17.0	12.2	B
	Through	4	4	100.0%	11.8	9.3	B
	Right Turn	35	36	101.7%	4.1	0.7	A
	Subtotal	48	47	98.3%	7.7	2.2	A
SB	Left Turn	7	5	68.6%	13.3	10.2	B
	Through						
	Right Turn	2	3	160.0%	3.2	2.6	A
	Subtotal	9	8	88.9%	10.1	5.9	B
EB	Left Turn	3	3	93.3%	6.5	5.2	A
	Through	278	283	101.7%	4.2	1.3	A
	Right Turn	15	19	125.3%	3.0	1.3	A
	Subtotal	296	304	102.8%	4.2	1.3	A
WB	Left Turn	7	6	80.0%	10.9	6.8	B
	Through	341	286	84.0%	5.7	1.1	A
	Right Turn	7	6	91.4%	4.2	2.1	A
	Subtotal	355	298	84.1%	5.9	1.1	A
Total		708	658	92.9%	5.3	0.9	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	748	533	71.3%	18.1	2.3	B
	Right Turn	77	57	73.8%	15.2	4.4	B
	Subtotal	825	590	71.5%	17.8	2.4	B
SB	Left Turn	139	98	70.5%	125.4	48.1	F
	Through	509	360	70.7%	107.4	51.5	F
	Right Turn						
	Subtotal	648	458	70.7%	111.5	49.9	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	136	109	80.3%	34.5	30.0	C
	Through						
	Right Turn	216	187	86.5%	9.2	7.3	A
	Subtotal	352	296	84.1%	19.3	16.8	B
Total		1,825	1,344	73.6%	48.6	15.5	D

Intersection 65 **6th St/G St** **0**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	32	59.3%	17.0	14.1	C
	Through	344	261	75.9%	8.8	2.0	A
	Right Turn	28	17	60.0%	4.2	2.2	A
	Subtotal	426	310	72.8%	9.2	1.8	A
SB	Left Turn	143	142	99.3%	23.9	4.5	C
	Through	288	287	99.6%	14.6	2.2	B
	Right Turn	12	14	116.7%	10.5	4.6	B
	Subtotal	443	443	100.0%	17.6	2.3	C
EB	Left Turn	28	17	61.4%	13.9	8.5	B
	Through	166	119	71.8%	2.8	0.8	A
	Right Turn	22	20	90.9%	1.7	1.3	A
	Subtotal	216	156	72.4%	4.0	1.0	A
WB	Left Turn	91	90	98.9%	12.9	2.6	B
	Through	286	259	90.5%	13.4	1.3	B
	Right Turn	207	199	96.2%	9.3	1.9	A
	Subtotal	584	548	93.8%	11.8	1.3	B
Total		1,669	1,457	87.3%	12.2	0.9	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	17	110.3%	34.2	11.7	C
	Through	111	92	83.1%	30.4	7.1	C
	Right Turn	46	37	80.3%	4.5	1.2	A
	Subtotal	172	146	84.7%	24.1	4.9	C
SB	Left Turn	37	33	90.4%	10.1	5.2	B
	Through	108	90	83.1%	10.0	3.9	B
	Right Turn	7	4	50.3%	2.8	6.7	A
	Subtotal	152	127	83.4%	9.9	2.9	A
EB	Left Turn	28	30	106.9%	40.8	12.3	D
	Through	288	252	87.4%	27.0	4.9	C
	Right Turn	17	14	80.8%	17.0	14.0	B
	Subtotal	333	295	88.7%	27.7	4.6	C
WB	Left Turn	53	45	85.7%	47.3	7.7	D
	Through	240	222	92.5%	30.9	6.9	C
	Right Turn	53	50	95.0%	6.3	2.4	A
	Subtotal	346	318	91.9%	29.4	5.3	C
Total		1,003	886	88.3%	25.2	2.7	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	5	82.1%	14.6	15.2	B
	Through	3	5	152.5%	13.3	15.1	B
	Right Turn	63	52	82.7%	4.7	1.2	A
	Subtotal	72	62	85.6%	7.7	2.6	A
SB	Left Turn	44	39	88.0%	19.8	4.9	B
	Through	11	12	112.0%	15.4	4.1	B
	Right Turn	10	14	144.3%	3.8	1.8	A
	Subtotal	65	65	100.7%	15.3	3.1	B
EB	Left Turn	9	6	70.4%	25.2	22.6	C
	Through	360	315	87.6%	13.1	3.6	B
	Right Turn	2	2	105.6%	1.8	2.1	A
	Subtotal	371	324	87.3%	13.4	3.4	B
WB	Left Turn	40	33	83.6%	21.3	6.9	C
	Through	330	296	89.6%	9.6	2.7	A
	Right Turn	37	37	100.8%	5.5	4.2	A
	Subtotal	407	366	90.0%	10.4	2.8	B
Total		915	817	89.3%	11.8	2.2	B

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	100	110	110.0%	5.1	1.3	A
	Through	616	611	99.2%	4.2	0.7	A
	Right Turn	38	36	95.8%	1.5	0.9	A
	Subtotal	754	758	100.5%	4.2	0.7	A
EB	Left Turn						
	Through	81	80	99.3%	14.8	1.3	B
	Right Turn	7	9	125.7%	11.9	12.8	B
	Subtotal	88	89	101.4%	14.5	1.0	B
WB	Left Turn	29	34	115.9%	18.8	5.5	B
	Through	54	54	100.0%	19.2	5.0	B
	Right Turn						
	Subtotal	83	88	105.5%	18.8	3.7	B
Total		925	934	101.0%	6.5	0.5	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	74	74	100.5%	8.9	1.9	A
	Through	553	557	100.7%	7.5	1.5	A
	Right Turn	25	26	104.0%	5.5	3.3	A
	Subtotal	652	657	100.8%	7.6	1.2	A
EB	Left Turn						
	Through	122	120	98.7%	12.7	1.6	B
	Right Turn	105	108	102.5%	7.8	2.4	A
	Subtotal	227	228	100.4%	10.4	1.8	B
WB	Left Turn	7	6	85.7%	13.8	10.2	B
	Through	309	313	101.4%	16.2	1.4	B
	Right Turn						
	Subtotal	316	319	101.0%	16.2	1.4	B
Total		1,195	1,204	100.8%	10.4	0.7	B

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	27	22	80.0%	36.5	10.7	D
	Through	421	351	83.3%	24.3	4.4	C
	Right Turn	48	38	80.0%	25.2	9.4	C
	Subtotal	496	411	82.8%	25.1	4.8	C
SB	Left Turn	18	14	80.0%	31.7	14.4	C
	Through	128	127	99.1%	15.8	2.7	B
	Right Turn	7	11	154.3%	26.0	12.9	C
	Subtotal	153	152	99.3%	18.1	2.3	B
EB	Left Turn	89	88	98.4%	34.2	6.8	C
	Through	69	65	93.9%	23.3	5.8	C
	Right Turn	44	42	95.5%	13.9	5.7	B
	Subtotal	202	194	96.2%	26.5	4.4	C
WB	Left Turn	166	142	85.3%	35.1	2.0	D
	Through	82	69	83.9%	21.9	3.6	C
	Right Turn	175	156	89.1%	15.6	3.2	B
	Subtotal	423	366	86.6%	24.3	1.9	C
Total		1,274	1,124	88.2%	24.1	2.0	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	137	93	67.7%	174.2	30.9	F
	Through	255	194	76.2%	150.8	39.4	F
	Right Turn	260	212	81.5%	145.4	34.9	F
	Subtotal	652	499	76.6%	153.0	34.6	F
SB	Left Turn	45	42	93.3%	30.0	7.0	C
	Through	56	64	114.3%	34.2	10.2	C
	Right Turn	5	9	176.0%	25.5	20.0	C
	Subtotal	106	115	108.3%	32.3	8.3	C
EB	Left Turn						
	Through	313	257	82.0%	30.3	3.4	C
	Right Turn	98	74	75.9%	26.7	5.9	C
	Subtotal	411	331	80.6%	29.5	2.8	C
SW	Left Turn	194	193	99.6%	29.6	2.1	C
	Through	1,271	1,263	99.4%	28.7	3.2	C
	Right Turn	400	378	94.6%	39.1	7.0	D
	Subtotal	1,865	1,835	98.4%	31.0	3.1	C
Total		3,034	2,780	91.6%	52.8	5.9	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	747	725	97.0%	19.2	2.8	B
	Through	899	874	97.2%	8.7	0.5	A
	Right Turn	2	3	140.0%	2.2	2.9	A
	Subtotal	1,648	1,601	97.2%	13.5	1.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	293	252	85.9%	28.4	4.7	C
	Through	2	2	120.0%	15.8	16.7	B
	Right Turn						
	Subtotal	295	254	86.1%	28.4	4.7	C
WB	Left Turn						
	Through	1	0	0.0%	0.0	0.0	A
	Right Turn	3	5	160.0%	2.8	3.4	A
	Subtotal	4	5	120.0%	2.8	3.4	A
Total		1,947	1,860	95.5%	15.5	1.5	B

Intersection 38 **5th St/Bannon St-N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	97	89	92.0%	6.8	2.2	A
	Through						
	Right Turn	5	5	96.0%	4.0	4.4	A
	Subtotal	102	94	92.2%	6.7	2.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	140	143	102.3%	5.2	1.0	A
	Right Turn	105	94	89.5%	3.3	0.9	A
	Subtotal	245	237	96.8%	4.5	0.6	A
WB	Left Turn	8	9	110.0%	5.6	3.6	A
	Through	97	81	83.3%	5.7	1.2	A
	Right Turn						
	Subtotal	105	90	85.3%	5.9	1.1	A
Total		452	421	93.1%	5.3	0.7	A

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	28	86.3%	7.6	3.3	A
	Through						
	Right Turn	86	76	88.8%	4.8	0.9	A
	Subtotal	118	104	88.1%	5.5	1.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	116	116	100.0%	8.1	1.9	A
	Right Turn	29	32	111.7%	5.1	2.5	A
	Subtotal	145	148	102.3%	7.5	1.9	A
WB	Left Turn	43	32	73.5%	17.3	5.2	B
	Through	73	66	90.4%	5.8	1.3	A
	Right Turn						
	Subtotal	116	98	84.1%	9.7	2.5	A
Total		379	350	92.3%	7.6	1.3	A

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	90.0%	11.8	8.2	B
	Through						
	Right Turn	98	89	90.6%	5.5	1.1	A
	Subtotal	102	92	90.6%	5.8	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	135	117	86.8%	6.2	1.8	A
	Right Turn						
	Subtotal	135	117	86.8%	6.2	1.8	A
WB	Left Turn	92	80	87.4%	14.5	1.4	B
	Through	419	366	87.4%	9.2	1.7	A
	Right Turn						
	Subtotal	511	447	87.4%	10.2	1.4	B
Total		748	656	87.8%	8.8	1.1	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	50.0%	13.9	20.2	B
	Through	359	289	80.6%	20.7	5.9	C
	Right Turn	241	186	77.0%	16.1	2.3	B
	Subtotal	604	477	78.9%	19.1	4.2	B
SB	Left Turn	16	14	85.0%	22.6	9.6	C
	Through	22	24	107.3%	8.5	3.7	A
	Right Turn	29	31	106.2%	6.0	2.0	A
	Subtotal	67	68	101.5%	11.0	2.9	B
EB	Left Turn	30	23	77.3%	27.6	5.6	C
	Through	154	134	87.0%	11.1	2.1	B
	Right Turn	5	6	120.0%	6.2	5.3	A
	Subtotal	189	163	86.3%	13.5	2.5	B
WB	Left Turn	55	48	86.5%	28.2	7.1	C
	Through	543	464	85.5%	12.9	1.6	B
	Right Turn	17	18	103.5%	12.3	6.6	B
	Subtotal	615	529	86.0%	14.3	2.0	B
Total		1,475	1,237	83.9%	15.9	2.2	B

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	488	459	94.0%	5.7	0.8	A
	Right Turn	39	40	102.6%	4.8	1.6	A
	Subtotal	527	499	94.6%	5.6	0.7	A
SB	Left Turn	22	25	114.5%	12.0	5.7	B
	Through	294	277	94.1%	6.6	1.2	A
	Right Turn						
	Subtotal	316	302	95.6%	7.1	1.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	17	18	105.9%	9.8	3.2	A
	Through						
	Right Turn	154	148	96.4%	7.5	0.8	A
	Subtotal	171	166	97.3%	7.8	0.7	A
Total		1,014	967	95.4%	6.5	0.7	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	79	89.0%	35.2	8.6	D
	Through	47	39	82.6%	17.2	7.8	B
	Right Turn	17	20	115.3%	8.2	4.7	A
	Subtotal	153	138	89.9%	26.2	5.0	C
SB	Left Turn	22	16	70.9%	30.0	12.2	C
	Through	80	77	96.5%	16.5	3.6	B
	Right Turn	11	10	90.9%	6.3	8.1	A
	Subtotal	113	103	91.0%	17.5	3.0	B
EB	Left Turn	12	15	123.3%	24.8	9.6	C
	Through	92	95	103.5%	27.1	7.5	C
	Right Turn	170	179	105.2%	16.9	8.5	B
	Subtotal	274	289	105.4%	20.6	7.9	C
WB	Left Turn	61	57	93.8%	20.6	4.8	C
	Through	43	47	109.8%	21.7	3.2	C
	Right Turn	43	42	97.7%	12.3	2.3	B
	Subtotal	147	146	99.6%	18.5	3.1	B
Total		687	676	98.3%	20.9	4.0	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	21	106.0%	6.9	2.4	A
	Through	5	5	104.0%	4.0	3.6	A
	Right Turn	34	28	83.5%	3.7	0.9	A
	Subtotal	59	55	92.9%	5.3	1.0	A
SB	Left Turn	5	6	112.0%	4.2	4.3	A
	Through	5	6	112.0%	9.3	6.5	A
	Right Turn	31	34	108.4%	3.5	1.5	A
	Subtotal	41	45	109.3%	4.4	1.9	A
EB	Left Turn	15	16	104.0%	4.1	1.2	A
	Through	90	85	94.2%	2.4	0.5	A
	Right Turn	26	28	106.2%	1.6	0.2	A
	Subtotal	131	128	97.7%	2.4	0.4	A
WB	Left Turn	13	13	101.5%	4.4	0.9	A
	Through	96	91	95.0%	2.4	0.3	A
	Right Turn	18	14	75.6%	2.3	0.4	A
	Subtotal	127	118	92.9%	2.6	0.3	A
Total		358	346	96.5%	3.2	0.4	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	10	64.0%	7.3	2.4	A
	Through	87	83	95.2%	11.5	1.4	B
	Right Turn	111	102	91.9%	9.9	1.5	A
	Subtotal	213	194	91.3%	10.4	1.3	B
SB	Left Turn						
	Through	72	65	90.6%	8.0	1.1	A
	Right Turn						
	Subtotal	72	65	90.6%	8.0	1.1	A
EB	Left Turn	31	27	87.7%	8.4	1.7	A
	Through	83	75	90.1%	9.6	1.0	A
	Right Turn	15	14	93.3%	8.0	1.8	A
	Subtotal	129	116	89.9%	9.2	0.7	A
WB	Left Turn	51	50	98.0%	6.8	1.3	A
	Through	112	108	96.1%	7.7	0.8	A
	Right Turn						
	Subtotal	163	158	96.7%	7.3	0.5	A
Total		577	533	92.4%	9.0	0.7	A

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	4	73.3%	15.9	16.5	B
	Through	412	355	86.1%	8.6	1.6	A
	Right Turn						
	Subtotal	418	359	85.9%	8.8	1.6	A
SB	Left Turn						
	Through	239	208	87.0%	7.4	1.9	A
	Right Turn	157	154	97.8%	5.0	1.7	A
	Subtotal	396	362	91.3%	6.3	1.5	A
EB	Left Turn	193	171	88.5%	8.2	1.3	A
	Through						
	Right Turn	1	1	120.0%	1.9	3.1	A
	Subtotal	194	172	88.7%	8.1	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,008	893	88.6%	7.7	1.2	A

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	549	549	100.0%	5.5	7.1	A
	Right Turn						
	Subtotal	549	549	100.0%	5.5	7.1	A
WB	Left Turn						
	Through	137	123	89.9%	1.0	0.1	A
	Right Turn						
	Subtotal	137	123	89.9%	1.0	0.1	A
Total		686	672	98.0%	4.6	5.8	A

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	34	86.2%	31.0	7.9	C
	Through	62	63	101.9%	19.2	4.7	B
	Right Turn	119	110	92.1%	13.8	3.0	B
	Subtotal	220	206	93.8%	18.3	4.1	B
SB	Left Turn	75	69	91.7%	35.7	5.1	D
	Through	202	191	94.7%	16.2	2.0	B
	Right Turn	8	8	105.0%	9.5	9.9	A
	Subtotal	285	268	94.2%	21.0	2.6	C
EB	Left Turn	15	16	104.0%	54.6	10.4	D
	Through	290	288	99.2%	32.2	8.7	C
	Right Turn	244	236	96.9%	25.5	9.0	C
	Subtotal	549	540	98.3%	30.0	8.9	C
WB	Left Turn	113	92	81.1%	43.0	7.6	D
	Through	90	81	90.2%	14.0	3.3	B
	Right Turn	290	258	88.8%	8.8	0.8	A
	Subtotal	493	430	87.3%	17.2	3.6	B
Total		1,547	1,445	93.4%	23.0	3.9	C

Intersection 49 **PH Garage Entry/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	100	101.4%	9.8	1.6	A
	Through	1	0	40.0%	2.4	6.8	A
	Right Turn	60	59	98.7%	6.8	1.7	A
	Subtotal	160	160	100.0%	8.8	1.4	A
SB	Left Turn	135	138	101.9%	10.6	1.4	B
	Through	1	2	160.0%	2.1	3.8	A
	Right Turn	52	51	98.5%	6.1	1.0	A
	Subtotal	188	190	101.3%	9.3	1.4	A
EB	Left Turn	16	18	112.5%	16.6	5.2	B
	Through	318	298	93.6%	11.0	1.2	B
	Right Turn	45	41	91.6%	9.5	1.6	A
	Subtotal	379	357	94.1%	11.1	1.1	B
WB	Left Turn	42	33	78.1%	18.3	4.0	B
	Through	325	269	82.8%	8.7	2.0	A
	Right Turn	104	72	69.6%	7.3	1.5	A
	Subtotal	471	374	79.5%	9.3	2.0	A
Total		1,198	1,082	90.3%	9.8	1.1	A

Intersection 50 **HSB Entry-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	20	95.2%	12.8	2.8	B
	Through	5	3	64.0%	5.1	6.2	A
	Right Turn	59	54	90.8%	8.5	2.1	A
	Subtotal	85	77	90.4%	9.6	1.5	A
SB	Left Turn	10	7	72.0%	9.6	9.9	A
	Through	5	2	32.0%	1.9	4.0	A
	Right Turn	5	3	56.0%	2.6	3.5	A
	Subtotal	20	12	58.0%	8.0	6.2	A
EB	Left Turn	5	3	64.0%	11.3	12.9	B
	Through	500	488	97.6%	11.8	2.1	B
	Right Turn	8	10	120.0%	10.2	6.8	B
	Subtotal	513	501	97.6%	11.8	2.1	B
WB	Left Turn	4	3	70.0%	19.5	18.2	B
	Through	445	366	82.2%	12.2	2.6	B
	Right Turn	10	10	104.0%	10.7	4.1	B
	Subtotal	459	379	82.5%	12.3	2.5	B
Total		1,077	968	89.9%	11.8	1.7	B

Intersection 51 **5th St-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	56	98.2%	59.8	8.2	E
	Through	100	102	102.4%	47.4	9.4	D
	Right Turn	19	20	103.2%	35.0	16.4	C
	Subtotal	176	178	101.1%	50.3	7.0	D
SB	Left Turn	82	81	98.5%	80.5	40.6	F
	Through	195	207	106.3%	48.6	15.2	D
	Right Turn	34	32	92.9%	38.5	9.6	D
	Subtotal	311	320	102.8%	56.2	20.2	E
EB	Left Turn	17	16	96.5%	68.3	24.4	E
	Through	456	418	91.8%	21.6	5.2	C
	Right Turn	70	57	81.7%	11.4	1.7	B
	Subtotal	543	492	90.6%	22.0	4.6	C
WB	Left Turn	49	36	72.7%	50.7	10.4	D
	Through	523	422	80.8%	10.8	3.4	B
	Right Turn	36	30	83.3%	9.3	7.6	A
	Subtotal	608	488	80.3%	13.7	3.4	B
Total		1,638	1,478	90.2%	29.9	5.3	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	14	14	102.9%	21.9	13.3	C
	Subtotal	14	14	102.9%	21.9	13.3	C
EB	Left Turn						
	Through	557	504	90.6%	10.2	10.1	B
	Right Turn						
	Subtotal	557	504	90.6%	10.2	10.1	B
WB	Left Turn						
	Through	594	482	81.1%	1.4	0.5	A
	Right Turn	16	12	72.5%	1.0	1.3	A
	Subtotal	610	493	80.9%	1.4	0.5	A
Total		1,181	1,012	85.7%	6.0	5.1	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	8	95.0%	30.7	26.0	C
	Through	138	135	98.0%	29.6	5.9	C
	Right Turn	332	286	86.3%	29.5	19.6	C
	Subtotal	478	429	89.8%	29.8	12.6	C
SB	Left Turn	18	12	66.7%	86.5	56.6	F
	Through	78	82	105.6%	34.9	9.6	C
	Right Turn	42	38	90.5%	20.4	8.3	C
	Subtotal	138	132	95.9%	33.7	6.7	C
EB	Left Turn	59	59	99.7%	65.0	24.9	E
	Through	479	418	87.2%	47.3	21.0	D
	Right Turn	19	18	92.6%	15.8	9.7	B
	Subtotal	557	494	88.7%	48.1	20.1	D
WB	Left Turn	275	227	82.6%	23.3	5.8	C
	Through	560	445	79.4%	14.5	2.3	B
	Right Turn	16	15	92.5%	8.9	6.2	A
	Subtotal	851	687	80.7%	17.4	3.3	B
Total		2,024	1,742	86.1%	30.4	7.9	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	301	280	93.0%	94.5	43.7	F
	Through	218	204	93.8%	60.4	35.2	E
	Right Turn	230	218	95.0%	56.3	33.1	E
	Subtotal	749	703	93.8%	73.1	38.7	E
SB	Left Turn	7	7	102.9%	35.7	30.8	D
	Through	169	156	92.1%	31.8	6.0	C
	Right Turn	64	57	88.8%	18.1	3.4	B
	Subtotal	240	220	91.5%	28.5	4.2	C
EB	Left Turn	175	137	78.2%	82.8	11.1	F
	Through	504	408	81.0%	48.6	10.4	D
	Right Turn	150	127	84.8%	6.1	1.9	A
	Subtotal	829	672	81.1%	47.7	7.7	D
WB	Left Turn	215	152	70.7%	101.4	24.0	F
	Through	486	357	73.4%	85.7	16.3	F
	Right Turn	25	24	97.6%	74.8	19.7	E
	Subtotal	726	533	73.4%	90.1	15.2	F
Total		2,544	2,128	83.6%	64.3	11.3	E

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Percent	Total Delay (sec/veh) Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	18	14	80.0%	22.5	12.0	C
	Subtotal	18	14	80.0%	22.5	12.0	C
EB	Left Turn	26	24	92.3%	29.4	10.8	C
	Through	715	604	84.4%	12.9	3.3	B
	Right Turn						
	Subtotal	741	628	84.7%	13.6	3.3	B
WB	Left Turn						
	Through	708	578	81.6%	116.0	27.9	F
	Right Turn	27	20	75.6%	110.8	33.3	F
	Subtotal	735	598	81.4%	115.9	28.0	F
Total		1,494	1,240	83.0%	62.9	12.3	E

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Percent	Total Delay (sec/veh) Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	23	22	97.4%	24.1	22.7	C
	Subtotal	23	22	97.4%	24.1	22.7	C
EB	Left Turn	582	478	82.1%	60.5	10.2	E
	Through						
	Right Turn						
	Subtotal	582	478	82.1%	60.5	10.2	E
WB	Left Turn						
	Through	762	644	84.5%	84.1	26.6	F
	Right Turn	51	36	70.6%	81.7	33.9	F
	Subtotal	813	680	83.6%	84.0	26.4	F
Total		1,418	1,180	83.2%	73.5	18.6	E

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	3.2	3.9	A
	Through	45	43	96.0%	9.4	2.0	A
	Right Turn	63	62	99.0%	5.4	1.4	A
	Subtotal	113	108	95.6%	7.0	1.5	A
SB	Left Turn	7	6	80.0%	10.0	7.2	B
	Through	287	274	95.3%	20.0	6.0	C
	Right Turn	265	236	89.2%	17.0	6.7	C
	Subtotal	559	516	92.2%	18.5	6.3	C
EB	Left Turn	51	52	101.2%	9.3	3.2	A
	Through	83	87	105.1%	9.8	1.7	A
	Right Turn	5	5	104.0%	4.9	4.6	A
	Subtotal	139	144	103.6%	9.6	1.8	A
WB	Left Turn	75	72	95.5%	11.0	2.9	B
	Through	53	54	101.1%	13.1	4.1	B
	Right Turn	124	113	91.3%	8.6	3.2	A
	Subtotal	252	238	94.6%	10.3	3.3	B
Total		1,063	1,006	94.6%	14.1	4.1	B

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	45	32	71.1%	14.8	3.0	B
	Through						
	Right Turn	29	30	104.8%	10.9	1.4	B
	Subtotal	74	62	84.3%	12.7	1.8	B
EB	Left Turn	36	40	112.2%	5.4	0.8	A
	Through	117	113	96.8%	2.2	0.5	A
	Right Turn						
	Subtotal	153	154	100.4%	3.0	0.4	A
WB	Left Turn						
	Through	223	209	93.6%	1.0	0.3	A
	Right Turn	100	98	98.4%	0.5	0.3	A
	Subtotal	323	307	95.1%	0.8	0.3	A
Total		550	523	95.1%	2.9	0.5	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	18	105.9%	5.3	1.1	A
	Through	16	14	87.5%	7.4	2.3	A
	Right Turn	13	17	132.3%	3.8	1.5	A
	Subtotal	46	49	107.0%	5.5	1.3	A
SB	Left Turn	3	2	66.7%	7.5	6.9	A
	Through	5	4	72.0%	6.6	4.9	A
	Right Turn	4	5	120.0%	7.2	5.0	A
	Subtotal	12	10	86.7%	9.1	5.2	A
EB	Left Turn	54	49	90.4%	7.0	1.5	A
	Through	243	221	91.0%	8.1	0.9	A
	Right Turn	10	11	112.0%	6.5	3.6	A
	Subtotal	307	281	91.6%	7.9	1.0	A
WB	Left Turn	13	14	110.8%	11.5	4.8	B
	Through	297	283	95.4%	13.2	1.4	B
	Right Turn	15	14	96.0%	7.4	3.1	A
	Subtotal	325	312	96.0%	12.9	1.5	B
Total		690	653	94.6%	10.1	1.0	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	184	96.5%	29.9	7.5	C
	Through	334	301	90.2%	21.8	3.4	C
	Right Turn	282	240	85.0%	16.9	3.1	B
	Subtotal	807	725	89.9%	22.3	3.0	C
SB	Left Turn	127	111	87.2%	41.0	10.7	D
	Through	232	215	92.8%	22.9	8.3	C
	Right Turn	5	4	72.0%	16.8	21.9	B
	Subtotal	364	330	90.5%	29.1	7.4	C
EB	Left Turn	5	6	128.0%	44.3	34.9	D
	Through	131	117	89.5%	25.2	4.5	C
	Right Turn	123	112	91.1%	13.8	3.5	B
	Subtotal	259	236	91.0%	20.5	4.6	C
WB	Left Turn	10	10	104.0%	48.3	11.1	D
	Through	129	126	98.0%	32.5	7.6	C
	Right Turn	183	186	101.9%	25.4	7.6	C
	Subtotal	322	323	100.4%	28.8	7.2	C
Total		1,752	1,614	92.1%	24.8	2.2	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	242	238	98.2%	35.7	9.6	D
	Through	157	160	101.7%	24.2	7.6	C
	Right Turn						
	Subtotal	399	397	99.5%	31.2	8.5	C
SB	Left Turn						
	Through	326	282	86.5%	11.1	2.3	B
	Right Turn	46	44	96.5%	7.7	2.5	A
	Subtotal	372	326	87.7%	10.6	2.3	B
EB	Left Turn	321	273	85.0%	18.7	2.7	B
	Through						
	Right Turn	245	216	88.3%	9.5	3.1	A
	Subtotal	566	489	86.4%	14.7	2.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,337	1,213	90.7%	19.0	3.6	B

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	83	81.2%	75.6	19.2	E
	Through	730	653	89.4%	66.8	14.4	E
	Right Turn	132	103	78.2%	60.6	18.4	E
	Subtotal	964	839	87.0%	67.0	14.8	E
SB	Left Turn	5	2	32.0%	29.5	34.7	C
	Through	350	326	93.0%	9.5	2.2	A
	Right Turn	10	10	100.0%	7.2	3.0	A
	Subtotal	365	337	92.4%	9.7	2.3	A
EB	Left Turn	66	63	95.8%	33.5	13.4	C
	Through	63	62	99.0%	33.3	8.6	C
	Right Turn	197	192	97.5%	24.4	7.7	C
	Subtotal	326	318	97.4%	28.0	8.7	C
WB	Left Turn	101	97	96.2%	43.9	8.9	D
	Through	36	31	86.7%	39.7	8.2	D
	Right Turn	11	10	94.5%	28.0	14.4	C
	Subtotal	148	139	93.8%	41.5	8.4	D
Total		1,803	1,632	90.5%	45.4	6.7	D

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	44	103.8%	14.7	7.4	B
	Through	537	544	101.4%	11.0	3.6	B
	Right Turn						
	Subtotal	579	588	101.6%	11.2	3.4	B
SB	Left Turn						
	Through	342	289	84.4%	1.8	0.5	A
	Right Turn	96	87	90.4%	1.8	1.7	A
	Subtotal	438	376	85.8%	1.8	0.6	A
EB	Left Turn						
	Through						
	Right Turn	101	84	82.8%	7.8	3.2	A
	Subtotal	101	84	82.8%	7.8	3.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,118	1,047	93.7%	7.6	2.1	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	100	42	225	103	225	97	8%	0%
	Through/Right	2,725	150	57	300	131	300	137	0%	0%
SB	Left Turn	325	275	36	375	25	325	1	5%	0%
	Left/Through	1,500	650	254	1,250	545	1,250	427	21%	8%
	Right Turn	325	225	59	400	58	325	1	0%	0%
WB	Left Turn	1,275	75	16	125	27	125	28	0%	0%
	Through	275	75	11	125	22	150	17	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	75	17	125	30	125	32	0%	0%
	Through	325	250	58	350	92	300	63	20%	23%
NB	Left/Through	325	175	48	325	90	300	66	0%	0%
	Right Turn	1,175	350	144	575	250	575	275	8%	0%
WB	Through	225	50	13	100	29	100	31	0%	0%
0										

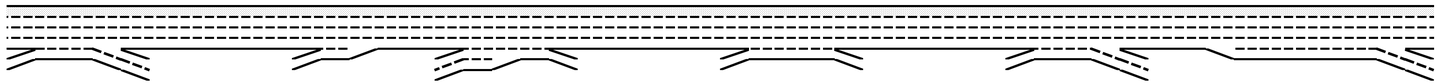
Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	275	70	400	111	400	106	0%	0%
	Through	600	225	75	350	128	375	132	0%	0%
	Through/Right	600	125	22	200	46	225	63	0%	0%
NB	Right Turn	2,650	25	2	25	8	25	11	0%	0%
NE	Shared	3,400	975	108	1,750	162	1,825	198	0%	0%
	Right Turn	3,400	25	0	25	0	25	0	0%	0%
	Right Turn	3,400	25	0	25	0	25	0	0%	0%
	Right Turns	350	125	59	275	132	300	116	0%	0%
SB	Left Turn	1,750	25	0	25	0	25	0	0%	0%
	Left/Through	1,750	25	0	25	0	25	0	0%	0%
	Left/Through	1,750	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

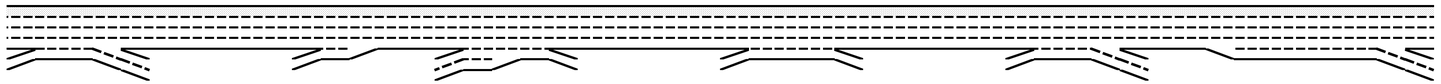
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	6,188	5,800	5,800	6,322	5,722	5,722	6,063	6,063	5,843	5,843
On Ramp Volume	578		522	549		982		610		
Off Ramp Volume	966			1,149		641		830		1,847
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	6,188	5,800	5,800	6,322	5,722	5,722	6,063	6,063	5,843	5,843
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	7,206	6,754	6,754	7,362	6,663	6,663	7,060	7,060	6,804	6,804
Flow (pcphpl)	1,801	1,688	1,688	1,840	1,666	1,666	1,765	1,765	1,701	1,361
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.77	0.72	0.72	0.78	0.71	0.71	0.75	0.75	0.72	0.58
Speed (mph)	62.7	63.8	63.8	62.2	64.0	64.0	63.1	63.1	63.7	65.0
Density (pcphpl)	28.7	26.5	26.5	29.6	26.0	26.0	28.0	28.0	26.7	20.9
LOS	D	D	D	D	D	D	D	D	D	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	7,888		7,370	7,981		7,941		7,772		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.67		0.78	0.68		0.68		0.66		
Flow Rate (pcphpl)	1,578		1,842	1,596		1,588		1,554		
Speed (mph)	64.6		62.2	64.5		64.5		64.7		
Density (pcphpl)	24.4		29.6	24.8		24.6		24.0		
LOS	C		D	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

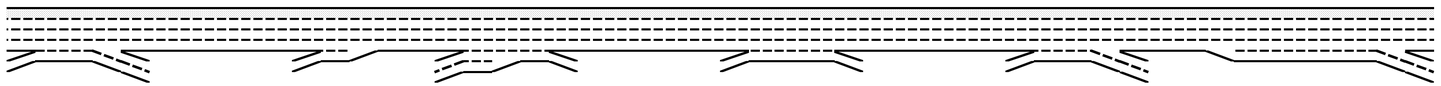
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	6,748			6,640		7,249		6,866		4,741
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.72			0.71		0.77		0.73		0.50
Flow Rate (pcphpl)	1,687			1,660		1,812		1,716		1,185
Speed (mph)	63.8			64.0		62.6		63.6		65.0
Density (pcphpl)	26.4			25.9		29.0		27.0		18.2
LOS	D			C		D		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

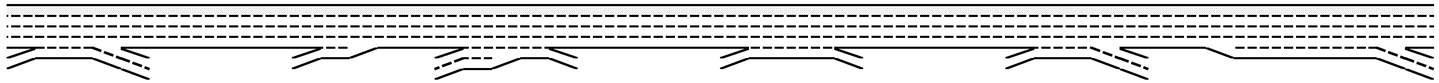
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	578		522	549		982		610		
PHF	0.86		0.86	0.9		0.78		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	682		616	619		1,278		712		
Flow Rate (pcphpl)	682		616	310		1,278		712		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.32		0.29	0.15		0.61		0.34		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

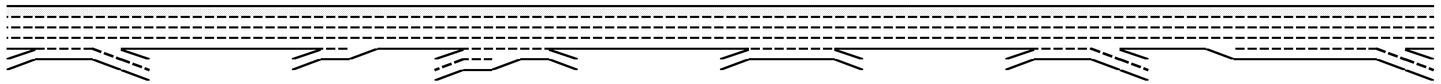
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	966			1,149		641		830		1,847
PHF	0.86			0.87		0.94		0.93		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	1,140			1,341		692		906		2,063
Flow Rate (pcphpl)	570			1,341		692		453		1,032
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.27			0.64		0.33		0.22		0.45
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			6,754							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.141							
v_{12} (pcph)			951							
v_3 (pcph)										
v_{3t} (pcph)			5,803							
v_{12a} (pcph)			2,702							
v_{R12a} (pcph)			3,318							
Speed Index			0.39							
Area Speed			56.0							
Outer Lanes Volume			2,026							
Outer Lanes Speed			59.5							
Segment Speed			57.9							
v/c ratio			0.72							
Density			28.4							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

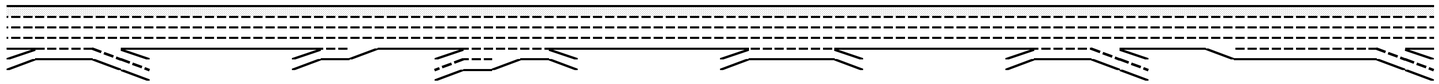
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										23.8
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

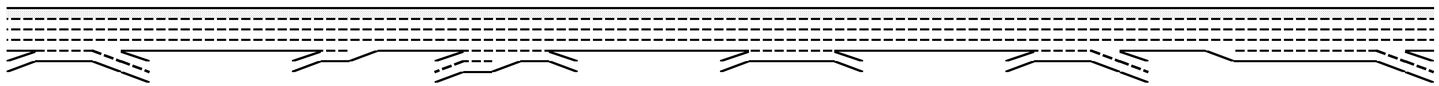
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline No Project Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

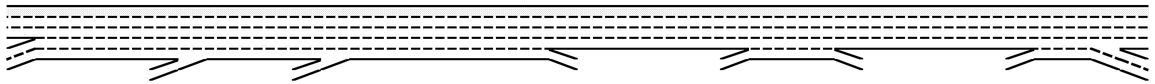
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.72	0.72		0.71		0.75		0.72	
Segment Density		26.5	28.4		26.0		28.0		26.7	23.8
Segment LOS		D	D		D		D		D	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

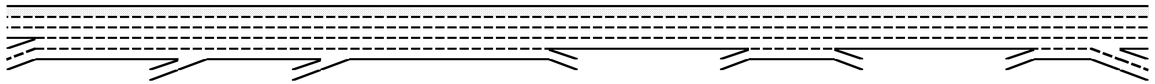
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	2,509	4,014	4,330	4,502	4,187	4,187	3,456	3,456
On Ramp Volume	1,505	316	172			609		469
Off Ramp Volume				315		1,340		328
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	2,509	4,014	4,330	4,502	4,187	4,187	3,456	3,456
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	2,922	4,674	5,042	5,242	4,876	4,876	4,024	4,024
Flow (pcphpl)	974	935	1,008	1,048	1,219	1,219	1,006	1,006
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.41	0.40	0.43	0.45	0.52	0.52	0.43	0.43
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	15.0	14.4	15.5	16.1	18.8	18.8	15.5	15.5
LOS	B	B	B	B	C	C	B	B
Calculate Operations for Segment GP Lanes								
Flow (pcph)	4,826	5,027	5,238			5,562		4,651
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.41	0.43	0.45			0.47		0.40
Flow Rate (pcphpl)	965	1,005	1,048			1,112		930
Speed (mph)	65.0	65.0	65.0			65.0		65.0
Density (pcphpl)	14.8	15.5	16.1			17.1		14.3
LOS	B	B	B			B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

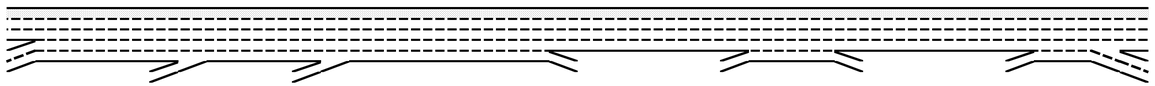
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				4,902		4,068		4,264
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.52		0.43		0.45
Flow Rate (pcphpl)				1,226		1,017		1,066
Speed (mph)				65.0		65.0		65.0
Density (pcphpl)				18.9		15.6		16.4
LOS				C		B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

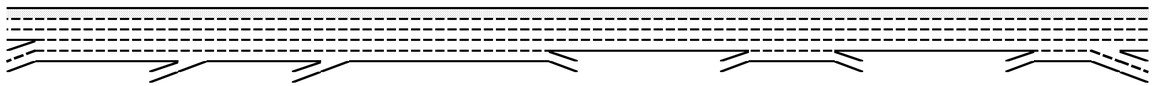


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	1,505	316	172			609		469
PHF	0.83	0.91	0.89			0.9		0.76
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	1,904	352	196			687		626
Flow Rate (pcphpl)	952	352	196			687		626
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.41	0.17	0.09			0.33		0.30

Location	1	2	3	4	5	6	7	8



Key

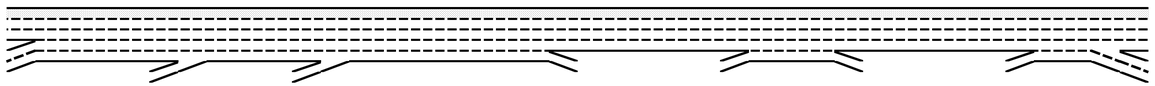
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				315		1,340		328
PHF				0.94		0.91		0.86
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				340		1,495		387
Flow Rate (pcphpl)				340		1,495		194
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.16		0.71		0.09
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		3,646	3,933					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.174	0.193					
v_{12} (pcph)		633	760					
v_3 (pcph)								
v_{34} (pcph)		3,012	3,173					
v_{12a} (pcph)		1,458	1,573					
v_{R12a} (pcph)		1,811	1,769					
Speed Index		0.34	0.32					
Area Speed		57.3	57.7					
Outer Lanes Volume		1,094	1,180					
Outer Lanes Speed		62.9	62.6					
Segment Speed		60.2	60.4					
v/c ratio		0.39	0.38					
Density		18.8	17.5					
LOS		B	B					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

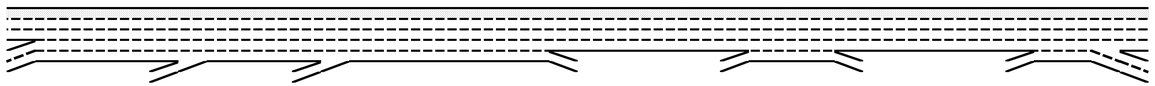
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				4,718				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.626				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,249				
v_3 (pcph)								
v_{34} (pcph)				2,469				
v_{12a} (pcph)				2,249				
Speed Index				0.33				
Area Speed				57.4				
Outer Lanes Volume				1,235				
Outer Lanes Speed				70.4				
Segment Speed				63.6				
v/c ratio				0.51				
Density				16.8				
LOS				B				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

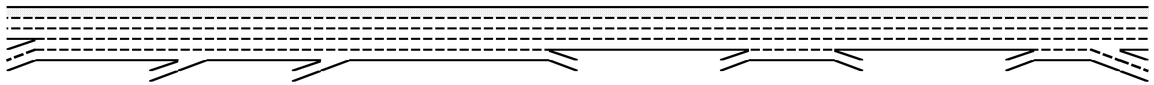
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Existing Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

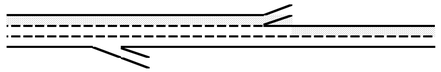


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.41	0.39	0.38	0.51	0.52		0.43	
Segment Density	14.8	18.8	17.5	16.8	18.8		15.5	
Segment LOS	B	B	B	B	C		B	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

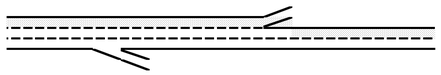


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	2,101	1,928	1,680
On Ramp Volume			
Off Ramp Volume	173	248	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	2,101	1,928	1,680
PHF	0.77	0.77	0.77
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,770	2,541	2,215
Flow (pcphpl)	923	847	1,107
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.39	0.35	0.46
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	14.2	12.1	15.8
LOS	B	B	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

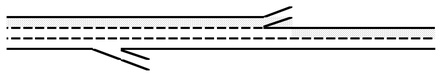


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,541	2,215	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.36	0.46	
Flow Rate (pcphpl)	847	1,107	
Speed (mph)	65.0	70.0	
Density (pcphpl)	13.0	15.8	
LOS	B	B	

Location	1	2	3



Key

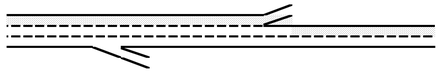
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3

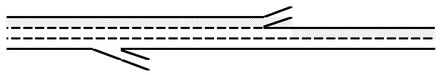


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	173	248	
PHF	0.77	0.77	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	228	327	
Flow Rate (pcphpl)	228	327	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.16	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		228	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

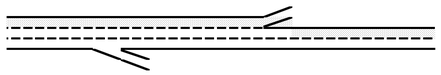


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,770		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.680		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.680		
v_{12} (pcph)	1,957		
v_3 (pcph)	813		
v_{34} (pcph)			
v_{12a} (pcph)	1,957		
Speed Index	0.32		
Area Speed	57.7		
Outer Lanes Volume	813		
Outer Lanes Speed	71.3		
Segment Speed	61.1		
v/c ratio	0.44		
Density	19.7		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

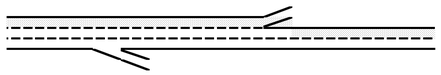


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

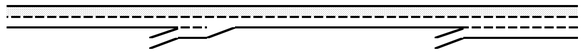
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.44	0.35	0.46
Segment Density	19.7	12.1	15.8
Segment LOS	B	B	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

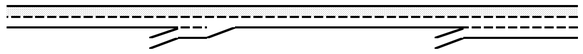


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,986	2,986	3,359	3,359
On Ramp Volume		373		169
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,986	2,986	3,359	3,359
PHF	0.77	0.77	0.77	0.77
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,936	3,936	4,428	4,428
Flow (pcphpl)	1,968	1,968	2,214	1,476
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.87	0.84	0.94	0.63
Speed (mph)	54.3	60.4	55.6	64.9
Density (pcphpl)	36.2	32.6	39.8	22.7
LOS	E	D	E	C
Operations for Segment GP Lanes				
Flow (pcph)		4,428		4,651
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.94		0.66
Flow Rate (pcphpl)		2,214		1,550
Speed (mph)		55.6		64.7
Density (pcphpl)		39.8		24.0
LOS		E		C

Location	1	2	3	4

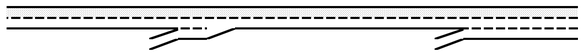


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4



Key

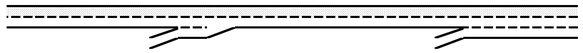
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		373		169
PHF		0.77		0.77
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		492		223
Flow Rate (pcphpl)		492		223
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.23		0.11

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Railyards SP Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

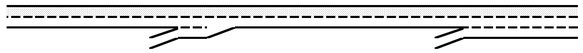


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,936		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,936		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,936		
v_{R12a} (pcph)		4,428		
Speed Index		0.58		
Area Speed		51.7		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		51.7		
v/c ratio		0.96		
Density		35.1		
LOS		E		

Location	1	2	3	4

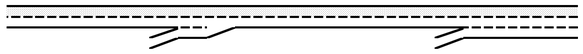


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

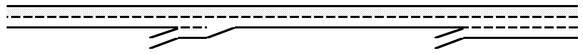


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.87	0.96	0.94	0.66
Segment Density	36.2	35.1	39.8	24.0
Segment LOS	E	E	E	C
Over Capacity				

Leisch Method for Weaving Analysis

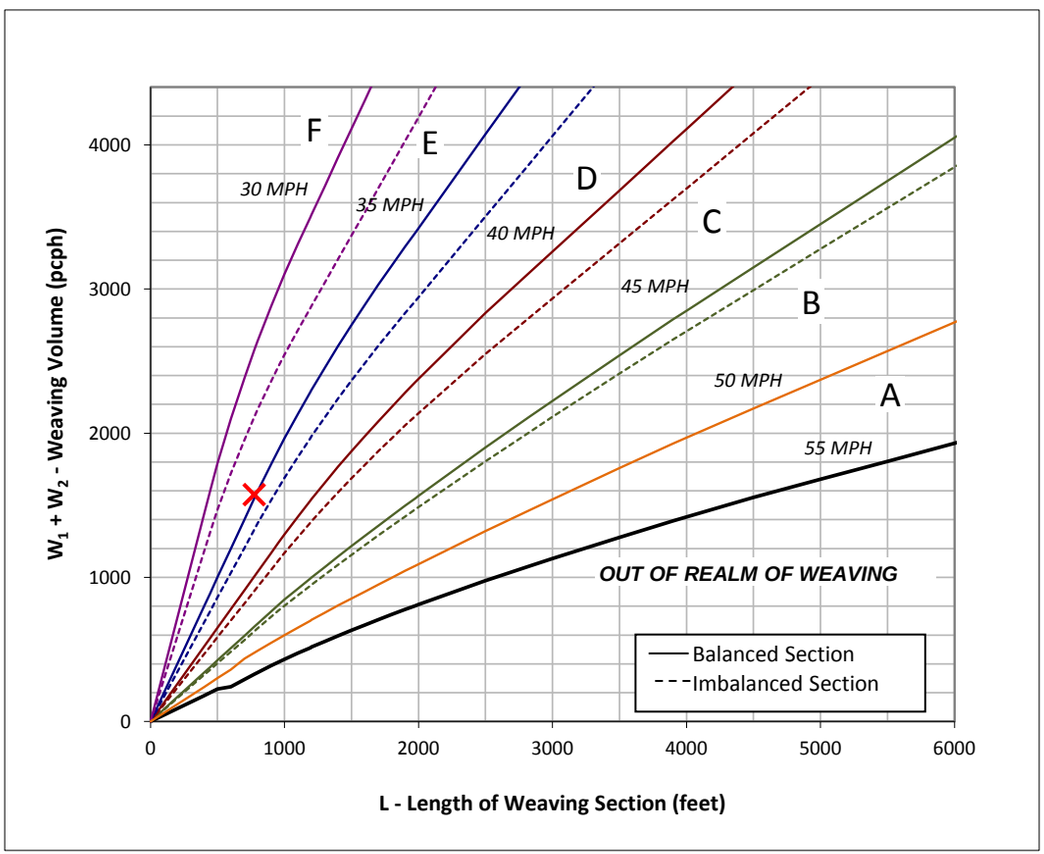
Data Input

Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

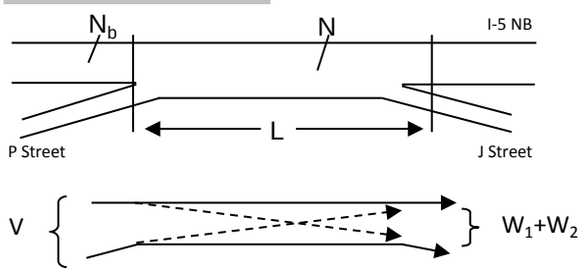
Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,766	Volume (vph)*	578	Volume (vph)*	966
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,091	Volume (pcph)	590	Volume (pcph)	985

Project Information

Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**

   If optional exit lane, then "Y". Otherwise "N".

2. In the chart to the left, which two speed curves is the red "x" between?

   30 MPH and **35 MPH**

   If left of the 30 MPH curve, LOS is F. Select "-".

   If below the 55 MPH curve, out of the realm of weaving.

3. Interpolated Weaving Speed (S_w, mph) **34.9**
4. Weaving Intensity Factor (k) **2.80**
5. Service Volume (SV, pcph)

   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,630**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

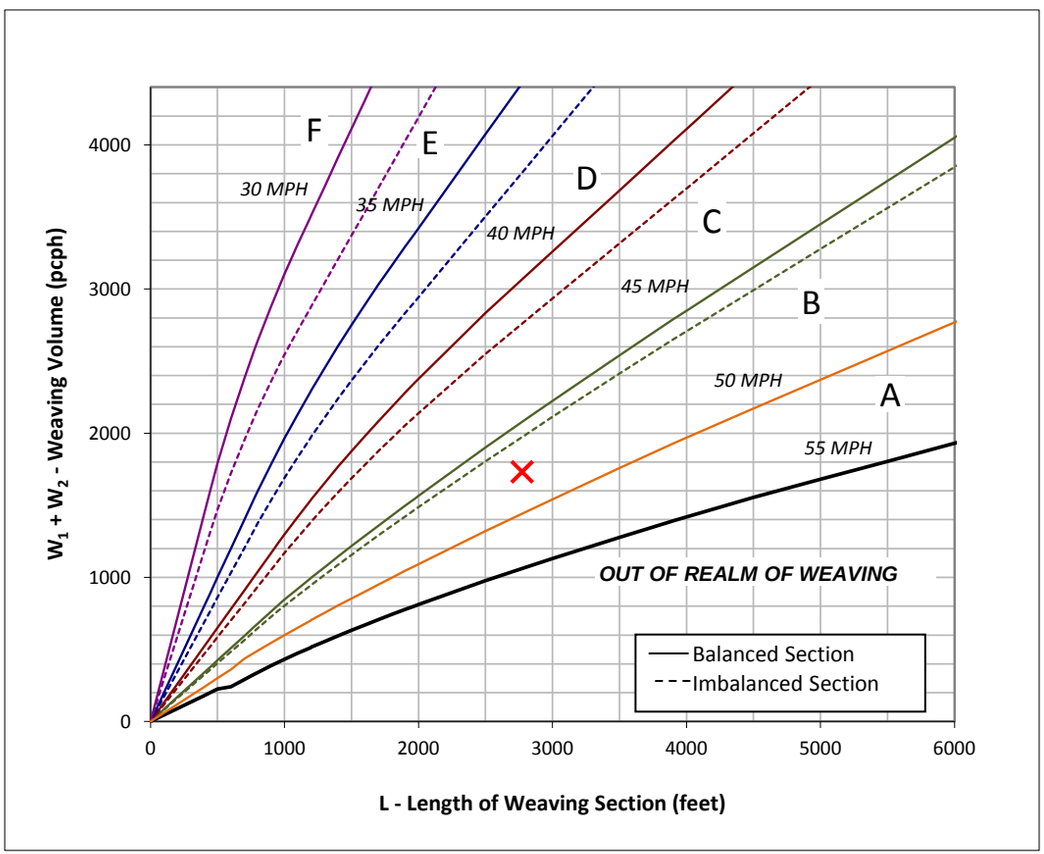
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,871	Volume (vph)*	549	Volume (vph)*	1,149
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,201	Volume (pcph)	560	Volume (pcph)	1,172



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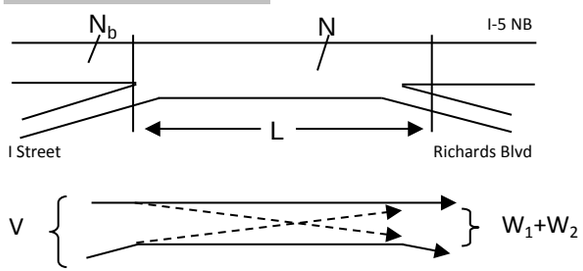


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	47.3
4. Weaving Intensity Factor (k)	1.36
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,480
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

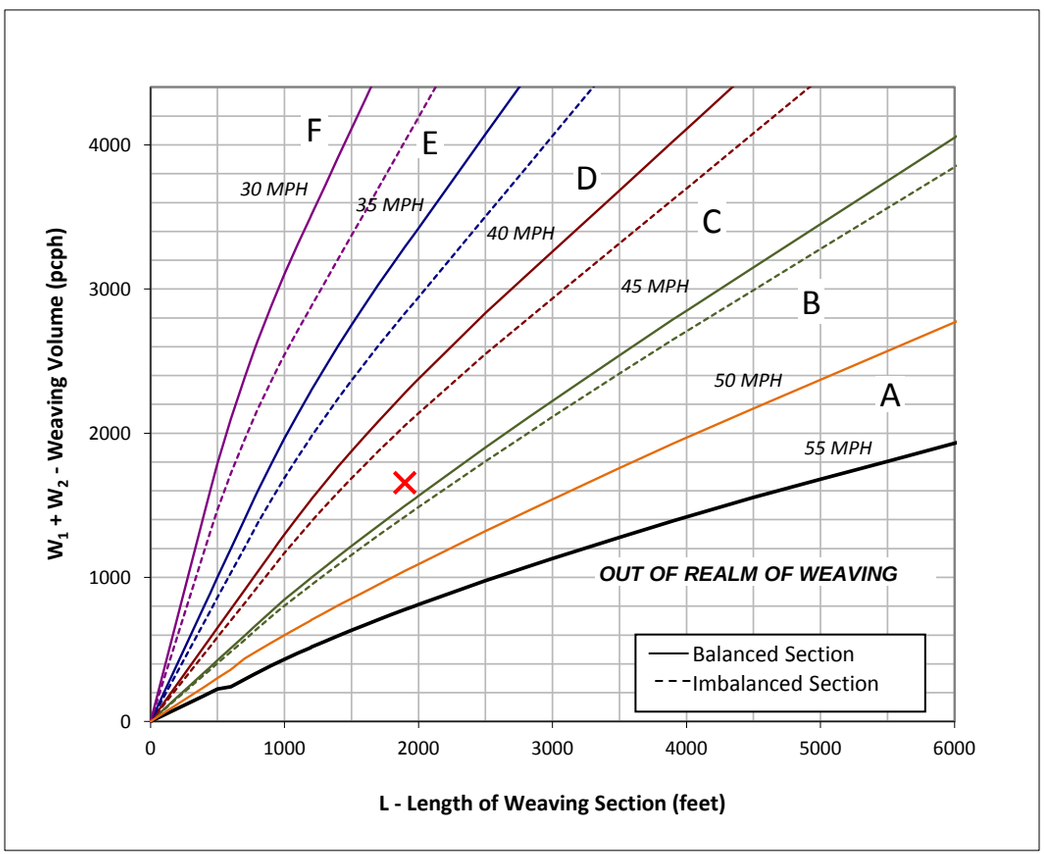
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

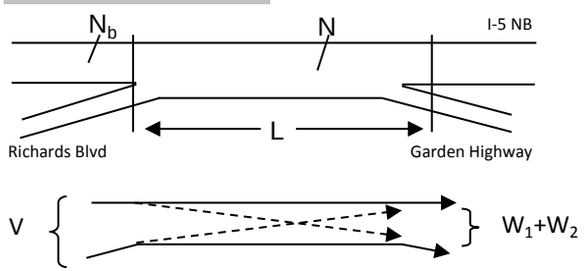
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,704	Volume (vph)*	982	Volume (vph)*	641
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,026	Volume (pcph)	1,002	Volume (pcph)	654



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	43.2
4. Weaving Intensity Factor (k)	2.20
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,562
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

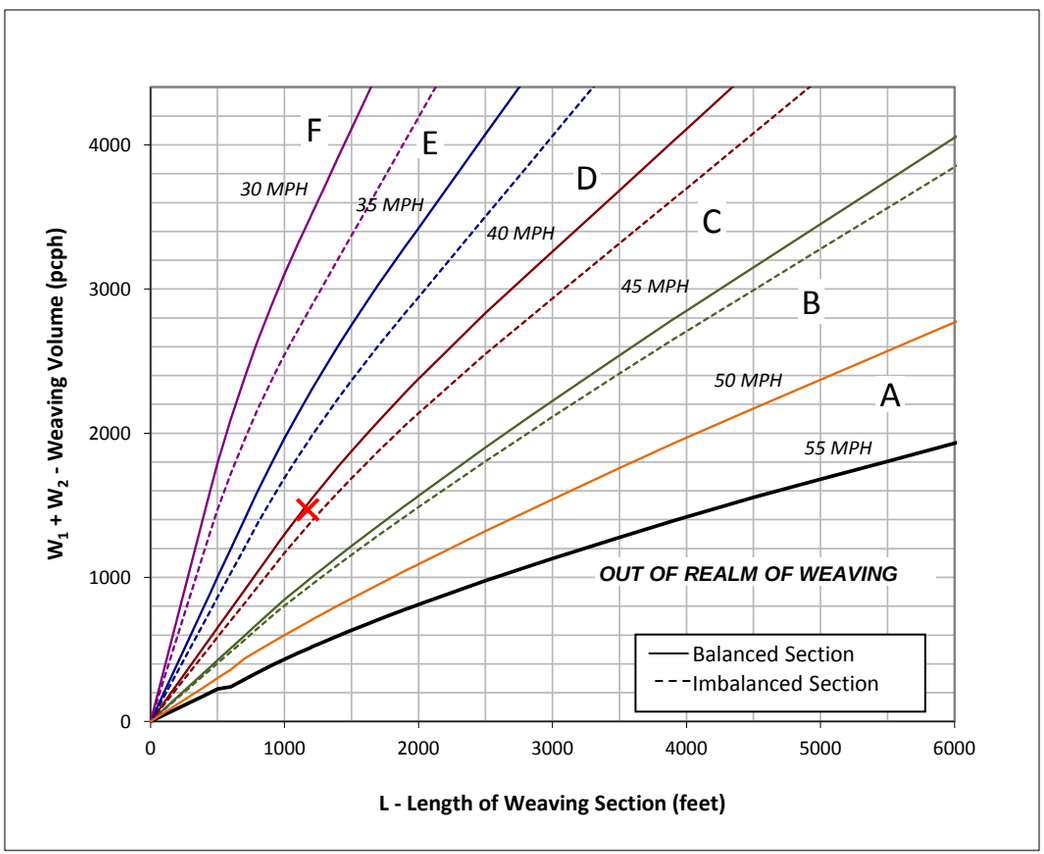
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,673	Volume (vph)*	610	Volume (vph)*	830
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,993	Volume (pcph)	622	Volume (pcph)	847



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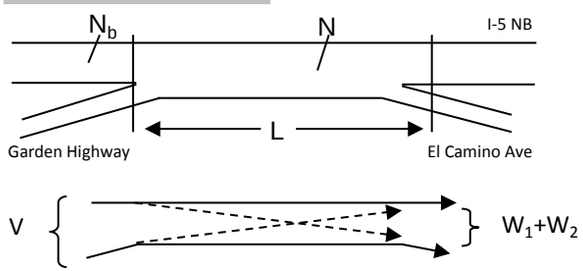


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	40.4
4. Weaving Intensity Factor (k)	2.50
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,585
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

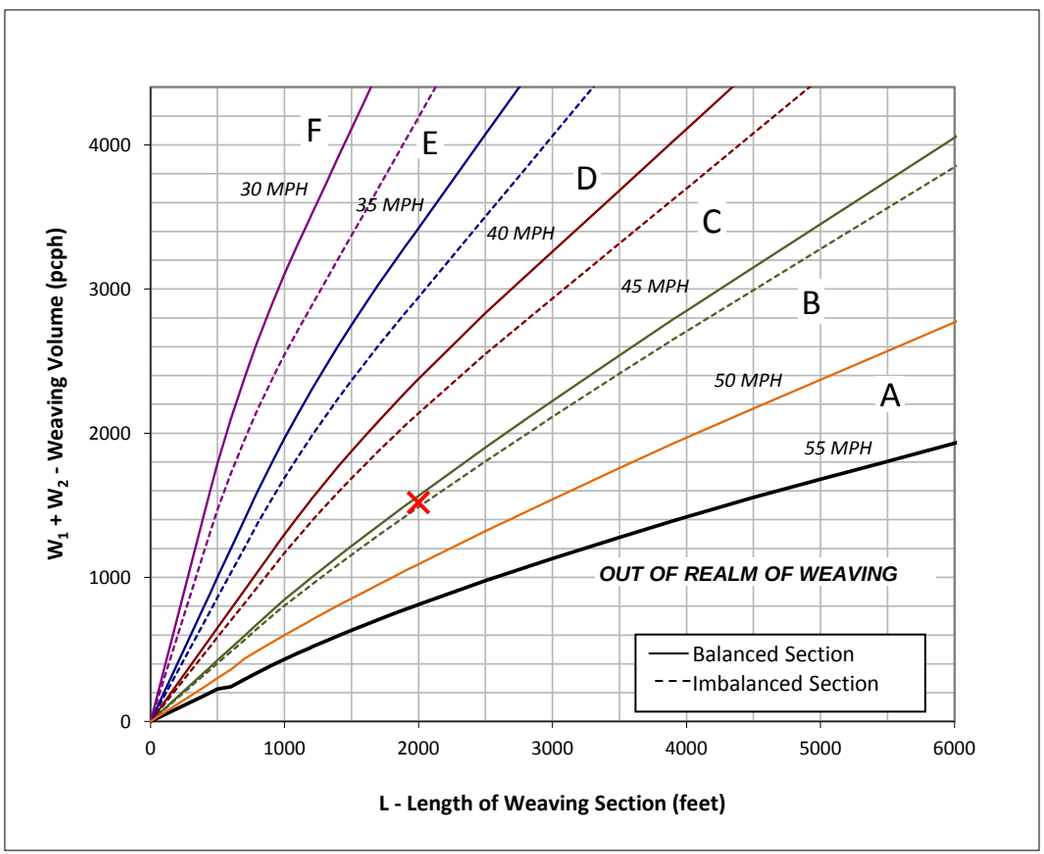
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,796	Volume (vph)*	536	Volume (vph)*	953
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,026	Volume (pcph)	547	Volume (pcph)	972



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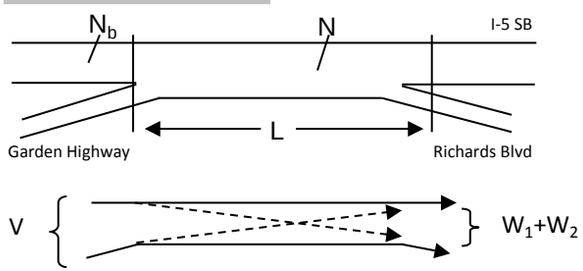


Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	44.6
4. Weaving Intensity Factor (k)	1.92
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,106
6. Level of Service (LOS)	B

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

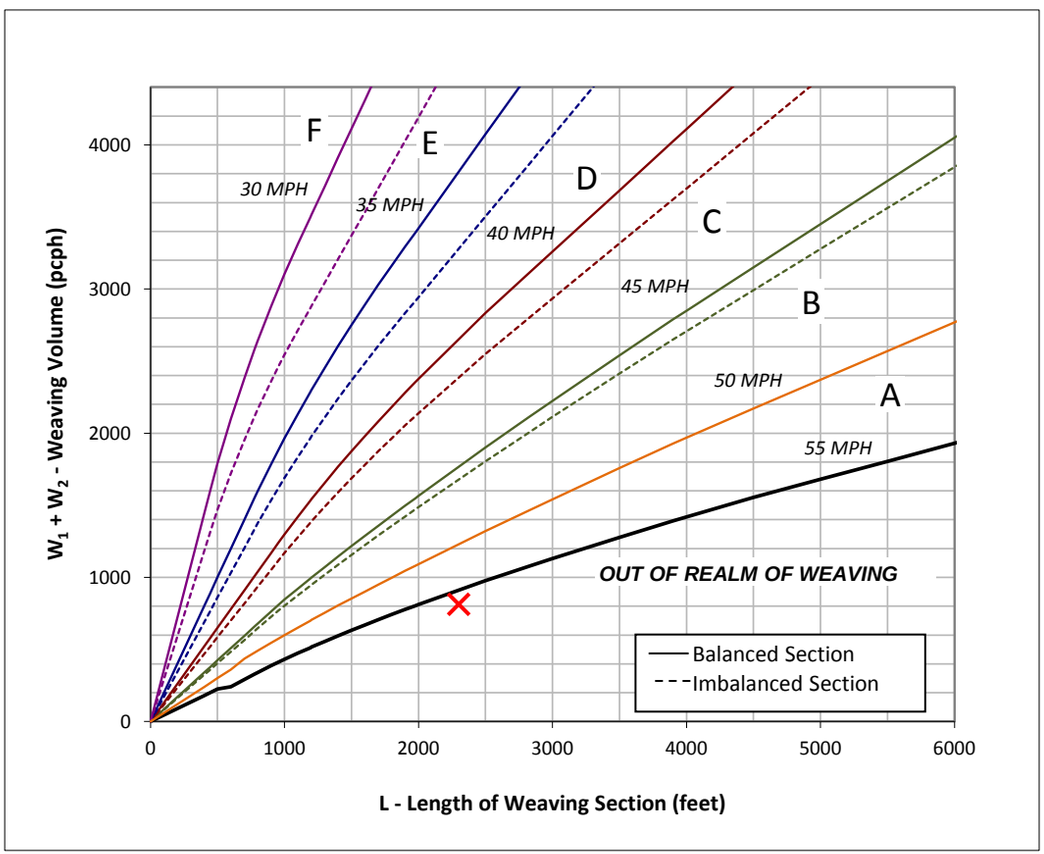
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus RSPU Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,925	Volume (vph)*	469	Volume (vph)*	328
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,113	Volume (pcph)	478	Volume (pcph)	335



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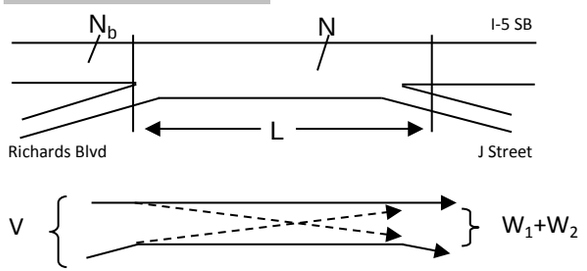


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	53.9
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	823
6. Level of Service (LOS)	A

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Daily VMT - Railyards Specific Plan Trips
Base Year Plus Railyards Specific Plan

Daily VMT for Railyards Specific Plan			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	342
2	>5	<=10	2,714
3	>10	<=15	14,820
4	>15	<=20	121,722
5	>20	<=25	69,685
6	>25	<=30	36,836
7	>30	<=35	54,293
8	>35	<=40	63,948
9	>40	<=45	77,770
10	>45	<=50	86,619
11	>50	<=55	123,060
12	>55	<=60	193,470
13	>60	<=65	75,164
14	>65	<=70	14,213
15	>70	<=75	0
16	>75		0
Railyards SP VMT Within SACMET Model Boundary			934,656
Railyards SP VMT Beyond SACMET Model Boundary			74,235
Total Railyards SP VMT			**1,008,891**
Total Railyards SP Vehicle Trips			116,492
Average Railyards SP VMT Per Trip			8.0

Note:

Includes all vehicle trips generated and attracted to Railyards Specific Plan, including internal vehicle trips that remain within the plan area.

Trip lengths include distances beyond SACMET model boundary

APPENDIX J.1.12:

Baseline Plus KP Medical Center Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,089	872	80.1%	91.1	2.3	F
	Through	12	13	106.7%	87.5	8.7	F
	Right Turn	509	425	83.5%	68.6	3.0	E
	Subtotal	1,610	1,310	81.4%	83.8	2.4	F
EB	Left Turn						
	Through	298	310	104.2%	22.7	1.5	C
	Right Turn	46	50	107.8%	4.4	2.5	A
	Subtotal	344	360	104.7%	20.1	1.5	C
WB	Left Turn	254	222	87.2%	8.3	2.3	A
	Through	145	128	88.6%	7.6	1.8	A
	Right Turn						
	Subtotal	399	350	87.7%	8.0	1.5	A
Total		2,353	2,020	85.9%	59.3	1.2	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	50	98.8%	24.3	6.4	C
	Through	8	8	95.0%	12.9	12.7	B
	Right Turn	824	810	98.3%	34.7	15.5	C
	Subtotal	883	868	98.3%	33.9	14.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	128	93.1%	23.1	12.9	C
	Through	1,250	1,032	82.5%	5.5	1.8	A
	Right Turn						
	Subtotal	1,387	1,159	83.6%	7.3	1.8	A
WB	Left Turn						
	Through	348	298	85.7%	15.3	4.6	B
	Right Turn	481	433	90.0%	3.6	0.3	A
	Subtotal	829	731	88.2%	8.3	1.9	A
Total		3,099	2,758	89.0%	16.0	4.8	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	282	270	95.7%	30.9	3.0	C
	Through	11	10	90.9%	27.5	12.3	C
	Right Turn	9	11	120.0%	5.2	4.1	A
	Subtotal	302	291	96.3%	29.8	2.4	C
SB	Left Turn	36	37	102.2%	39.9	15.4	D
	Through	3	4	146.7%	33.0	27.2	C
	Right Turn	68	62	90.6%	5.3	2.0	A
	Subtotal	107	103	96.1%	18.5	3.7	B
EB	Left Turn	126	98	77.5%	38.1	6.1	D
	Through	1,124	1,008	89.7%	17.4	4.4	B
	Right Turn	824	738	89.5%	4.4	0.5	A
	Subtotal	2,074	1,844	88.9%	13.3	2.7	B
WB	Left Turn	35	28	78.9%	33.8	8.7	C
	Through	479	412	86.0%	18.5	3.8	B
	Right Turn	10	8	80.0%	11.2	10.4	B
	Subtotal	524	448	85.4%	19.3	3.3	B
Total		3,007	2,685	89.3%	16.3	2.0	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	22	104.8%	43.3	11.9	D
	Through	5	5	96.0%	18.3	19.4	B
	Right Turn	8	9	115.0%	8.9	9.1	A
	Subtotal	34	36	105.9%	33.0	9.7	C
SB	Left Turn	15	16	106.7%	37.3	21.6	D
	Through	5	3	64.0%	22.1	25.2	C
	Right Turn	17	17	98.8%	4.8	2.4	A
	Subtotal	37	36	97.3%	23.6	7.3	C
EB	Left Turn	57	51	89.1%	34.7	6.5	C
	Through	1,018	918	90.2%	3.9	0.6	A
	Right Turn	94	78	83.0%	3.4	1.7	A
	Subtotal	1,169	1,047	89.6%	5.4	0.6	A
WB	Left Turn	21	18	87.6%	32.8	14.5	C
	Through	486	406	83.5%	6.4	1.7	A
	Right Turn	34	31	90.6%	4.1	1.3	A
	Subtotal	541	455	84.1%	7.6	1.6	A
Total		1,781	1,574	88.4%	7.1	1.0	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	38	92.7%	42.9	7.2	D
	Through	3	4	133.3%	37.1	32.4	D
	Right Turn	10	11	108.0%	14.0	11.3	B
	Subtotal	54	53	97.8%	37.4	8.3	D
SB	Left Turn	5	5	96.0%	35.2	15.6	D
	Through	10	11	108.0%	41.4	19.3	D
	Right Turn	7	5	68.6%	7.2	9.2	A
	Subtotal	22	20	92.7%	34.5	7.3	C
EB	Left Turn	56	44	77.9%	34.2	11.4	C
	Through	980	894	91.2%	7.3	1.9	A
	Right Turn	5	6	112.0%	2.1	3.7	A
	Subtotal	1,041	943	90.6%	8.5	2.1	A
WB	Left Turn	24	20	85.0%	42.8	19.1	D
	Through	493	415	84.2%	5.8	1.6	A
	Right Turn	26	21	81.5%	4.2	2.8	A
	Subtotal	543	457	84.1%	7.3	2.0	A
Total		1,660	1,473	88.7%	9.5	1.8	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	12.3	13.6	B
	Through	5	7	136.0%	34.5	24.0	C
	Right Turn	5	3	64.0%	4.5	5.9	A
	Subtotal	15	13	88.0%	29.5	16.2	C
SB	Left Turn	16	18	110.0%	37.4	15.7	D
	Through	5	6	120.0%	16.3	15.4	B
	Right Turn	20	16	80.0%	4.9	1.6	A
	Subtotal	41	40	96.6%	22.6	9.2	C
EB	Left Turn	54	59	108.9%	39.3	4.6	D
	Through	933	834	89.4%	5.5	2.3	A
	Right Turn	8	5	65.0%	3.0	5.6	A
	Subtotal	995	898	90.3%	7.7	2.2	A
WB	Left Turn	9	8	84.4%	43.7	20.7	D
	Through	518	435	83.9%	7.1	1.7	A
	Right Turn	17	12	70.6%	4.3	4.7	A
	Subtotal	544	454	83.5%	7.8	1.8	A
Total		1,595	1,406	88.1%	8.4	1.8	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	27	80.0%	40.1	12.8	D
	Through	82	77	93.7%	48.1	19.3	D
	Right Turn	361	299	82.8%	36.8	13.3	D
	Subtotal	477	403	84.4%	39.0	13.4	D
SB	Left Turn	7	6	91.4%	45.5	27.3	D
	Through	17	15	87.1%	41.0	13.2	D
	Right Turn	21	19	89.5%	44.3	25.9	D
	Subtotal	45	40	88.9%	43.9	16.5	D
EB	Left Turn	124	99	79.7%	50.9	9.1	D
	Through	734	639	87.0%	37.2	5.9	D
	Right Turn	96	84	87.1%	34.2	9.4	C
	Subtotal	954	821	86.1%	38.6	5.8	D
WB	Left Turn	542	382	70.5%	117.9	33.9	F
	Through	491	414	84.3%	44.0	22.0	D
	Right Turn	14	14	97.1%	33.4	27.8	C
	Subtotal	1,047	810	77.3%	78.8	28.3	E
Total		2,523	2,074	82.2%	54.2	12.3	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	80.0%	37.2	11.4	D
	Through	32	32	101.3%	36.1	11.1	D
	Right Turn	12	10	83.3%	4.4	2.2	A
	Subtotal	56	52	92.9%	30.3	8.3	C
SB	Left Turn	7	6	80.0%	27.3	23.0	C
	Through	7	8	108.6%	34.2	27.4	C
	Right Turn	32	39	122.5%	8.9	4.2	A
	Subtotal	46	52	113.9%	17.5	8.3	B
EB	Left Turn	137	116	84.7%	38.5	5.5	D
	Through	926	773	83.5%	7.9	1.7	A
	Right Turn	39	38	96.4%	5.2	1.0	A
	Subtotal	1,102	926	84.1%	11.6	1.9	B
WB	Left Turn	15	15	98.7%	41.5	19.4	D
	Through	1,111	941	84.7%	10.4	5.9	B
	Right Turn	51	51	99.6%	5.7	3.9	A
	Subtotal	1,177	1,006	85.5%	10.6	5.8	B
Total		2,381	2,037	85.6%	11.7	3.5	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	20	92.7%	40.6	17.9	D
	Through	7	8	108.6%	28.5	18.1	C
	Right Turn	27	26	97.8%	12.3	6.1	B
	Subtotal	56	54	97.1%	24.7	4.5	C
SB	Left Turn	40	38	96.0%	35.9	8.9	D
	Through	11	10	94.5%	23.8	17.2	C
	Right Turn	21	19	89.5%	10.9	6.8	B
	Subtotal	72	68	93.9%	28.7	8.3	C
EB	Left Turn	26	18	67.7%	43.4	16.6	D
	Through	891	740	83.1%	10.0	3.0	A
	Right Turn	28	22	77.1%	4.8	3.8	A
	Subtotal	945	779	82.5%	10.6	3.0	B
WB	Left Turn	27	27	99.3%	43.1	8.5	D
	Through	1,134	996	87.8%	9.8	1.3	A
	Right Turn	27	24	88.9%	7.3	3.8	A
	Subtotal	1,188	1,046	88.1%	10.6	1.5	B
Total		2,261	1,948	86.1%	11.6	1.7	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	63	97.2%	68.3	8.9	E
	Through	1,035	1,014	97.9%	15.0	2.1	B
	Right Turn	2	2	100.0%	0.6	0.8	A
	Subtotal	1,102	1,079	97.9%	18.0	1.9	B
SB	Left Turn						
	Through	2,531	2,225	87.9%	64.2	5.5	E
	Right Turn	1,187	1,020	86.0%	22.2	4.2	C
	Subtotal	3,718	3,246	87.3%	51.0	5.3	D
EB	Left Turn	894	621	69.5%	92.4	14.9	F
	Through						
	Right Turn	20	16	78.0%	23.5	12.8	C
	Subtotal	914	637	69.7%	90.7	14.9	F
WB	Left Turn						
	Through	1	0	40.0%	14.0	44.2	B
	Right Turn	2	2	120.0%	2.4	3.0	A
	Subtotal	3	3	93.3%	16.4	43.5	B
Total		5,737	4,964	86.5%	48.9	5.1	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	194	193	99.4%	1.4	0.2	A
	Right Turn	3	4	133.3%	1.2	0.1	A
	Subtotal	197	197	99.9%	1.4	0.1	A
SB	Left Turn	245	217	88.5%	8.8	0.6	A
	Through	583	526	90.2%	6.4	0.4	A
	Right Turn						
	Subtotal	828	743	89.7%	7.1	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	3	106.7%	6.8	7.6	A
	Through						
	Right Turn	49	44	89.8%	3.6	1.0	A
	Subtotal	52	47	90.8%	4.3	1.9	A
Total		1,077	987	91.6%	5.8	0.4	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	38	86.4%	4.4	0.3	A
	Through	49	50	101.2%	6.0	0.5	A
	Right Turn						
	Subtotal	93	88	94.2%	5.3	0.3	A
SB	Left Turn						
	Through	31	29	94.2%	7.0	0.8	A
	Right Turn	8	8	105.0%	3.0	1.9	A
	Subtotal	39	38	96.4%	6.3	0.9	A
EB	Left Turn	5	5	96.0%	3.5	1.9	A
	Through						
	Right Turn	243	214	88.1%	4.4	0.5	A
	Subtotal	248	219	88.2%	4.4	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	344	90.5%	4.8	0.2	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	21	86.7%	42.0	22.1	D
	Through	438	393	89.8%	41.8	11.3	D
	Right Turn	26	22	86.2%	41.8	13.3	D
	Subtotal	488	436	89.4%	41.7	11.2	D
SB	Left Turn	11	10	87.3%	101.4	38.3	F
	Through	639	373	58.4%	89.4	37.0	F
	Right Turn	7	6	85.7%	94.3	59.8	F
	Subtotal	657	389	59.2%	89.5	35.8	F
EB	Left Turn	10	12	116.0%	53.8	25.9	D
	Through	46	46	100.9%	43.2	7.2	D
	Right Turn	73	75	103.0%	26.5	7.1	C
	Subtotal	129	133	103.3%	33.7	6.6	C
WB	Left Turn	338	224	66.3%	109.9	33.8	F
	Through	68	44	64.7%	119.4	46.0	F
	Right Turn	27	25	93.3%	31.7	11.1	C
	Subtotal	433	293	67.7%	105.3	32.8	F
Total		1,707	1,252	73.3%	70.1	13.9	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	29	92.9%	38.9	11.2	D
	Through	101	95	94.3%	38.0	4.1	D
	Right Turn	22	26	120.0%	35.3	12.3	D
	Subtotal	154	150	97.7%	37.5	4.9	D
SB	Left Turn	2	2	80.0%	12.6	26.6	B
	Through	17	16	96.5%	55.5	12.2	E
	Right Turn	9	8	88.9%	25.6	25.1	C
	Subtotal	28	26	92.9%	45.7	11.0	D
EB	Left Turn						
	Through	61	62	101.6%	32.8	8.3	C
	Right Turn	22	21	94.5%	22.9	8.2	C
	Subtotal	83	83	99.8%	30.0	7.6	C
SW	Left Turn	18	11	62.2%	9.6	8.0	A
	Through	2,289	1,980	86.5%	13.7	4.0	B
	Right Turn	325	281	86.4%	18.8	4.3	B
	Subtotal	2,632	2,272	86.3%	14.3	4.0	B
Total		2,897	2,531	87.4%	16.5	3.8	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	133	104.6%	9.3	1.1	A
	Through	1,075	1,054	98.0%	7.7	0.6	A
	Right Turn	6	6	93.3%	2.1	3.5	A
	Subtotal	1,208	1,192	98.7%	7.8	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	48	102.1%	13.7	2.7	B
	Through	6	5	80.0%	11.1	11.5	B
	Right Turn						
	Subtotal	53	53	99.6%	13.8	2.2	B
WB	Left Turn						
	Through	6	5	80.0%	15.6	12.9	B
	Right Turn	2	3	140.0%	2.2	2.2	A
	Subtotal	8	8	95.0%	13.6	12.0	B
Total		1,269	1,252	98.7%	8.1	0.6	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	19	117.5%	11.3	6.8	B
	Through	13	13	101.5%	13.3	8.8	B
	Right Turn						
	Subtotal	29	32	110.3%	11.4	5.6	B
SB	Left Turn						
	Through	25	17	67.2%	14.5	7.9	B
	Right Turn	33	28	83.6%	7.6	5.1	A
	Subtotal	58	44	76.6%	10.3	5.3	B
EB	Left Turn						
	Through	8	8	95.0%	13.4	12.4	B
	Right Turn						
	Subtotal	8	8	95.0%	13.4	12.4	B
WB	Left Turn	39	32	82.1%	5.6	3.0	A
	Through	2,504	2,175	86.9%	9.0	1.6	A
	Right Turn	8	6	70.0%	5.1	2.0	A
	Subtotal	2,551	2,213	86.7%	9.0	1.7	A
Total		2,646	2,297	86.8%	9.0	1.6	A

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	126	124	98.1%	2.6	0.6	A
	Right Turn	68	54	80.0%	1.9	0.6	A
	Subtotal	194	178	91.8%	2.3	0.4	A
SB	Left Turn	299	260	87.0%	7.5	0.8	A
	Through	287	256	89.2%	4.2	0.8	A
	Right Turn						
	Subtotal	586	516	88.1%	5.9	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	22	16	72.7%	7.0	2.5	A
	Through						
	Right Turn	71	68	95.8%	5.7	1.6	A
	Subtotal	93	84	90.3%	6.0	1.7	A
Total		873	778	89.1%	5.1	0.4	A

Intersection 43 **5th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	540	394	73.0%	2.1	0.3	A
	Through						
	Right Turn						
	Subtotal	540	394	73.0%	2.1	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	146	135	92.3%	7.0	2.2	A
	Subtotal	146	135	92.3%	7.0	2.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		686	529	77.1%	3.4	0.7	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	150	93.2%	9.5	1.9	A
	Right Turn	468	475	101.5%	6.1	1.5	A
	Subtotal	629	625	99.4%	6.9	1.5	A
SB	Left Turn	227	219	96.6%	50.3	34.2	D
	Through	340	336	98.9%	12.5	20.5	B
	Right Turn						
	Subtotal	567	556	98.0%	27.4	25.7	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	225	170	75.4%	26.0	4.3	C
	Through						
	Right Turn	9	8	93.3%	13.6	3.6	B
	Subtotal	234	178	76.1%	25.5	4.0	C
Total		1,430	1,359	95.0%	17.6	10.7	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	36	32	88.9%	10.0	2.5	B
	Through						
	Right Turn	59	48	81.4%	3.1	0.7	A
	Subtotal	95	80	84.2%	6.0	1.4	A
EB	Left Turn	107	101	94.6%	5.9	1.2	A
	Through	588	590	100.4%	4.8	0.5	A
	Right Turn						
	Subtotal	695	692	99.5%	4.9	0.5	A
WB	Left Turn						
	Through	175	132	75.2%	9.7	1.9	A
	Right Turn	38	32	84.2%	7.5	1.1	A
	Subtotal	213	164	76.8%	9.3	1.8	A
Total		1,003	935	93.2%	5.8	0.4	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	103	94	91.7%	11.8	1.3	B
	Through						
	Right Turn	17	19	112.9%	3.0	0.7	A
	Subtotal	120	114	94.7%	10.3	1.0	B
EB	Left Turn	89	84	94.4%	15.5	1.6	B
	Through	535	536	100.3%	11.8	1.0	B
	Right Turn						
	Subtotal	624	620	99.4%	12.3	1.1	B
WB	Left Turn						
	Through	196	144	73.7%	4.9	1.0	A
	Right Turn	309	228	73.7%	3.4	0.6	A
	Subtotal	505	372	73.7%	4.0	0.6	A
Total		1,249	1,106	88.6%	9.3	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	12	116.0%	8.9	6.8	A
	Through						
	Right Turn	10	12	120.0%	2.4	1.8	A
	Subtotal	20	24	118.0%	5.5	3.0	A
EB	Left Turn	10	13	128.0%	20.1	2.2	C
	Through	628	618	98.3%	18.5	1.6	B
	Right Turn						
	Subtotal	638	630	98.8%	18.5	1.6	B
WB	Left Turn						
	Through	495	360	72.8%	3.8	0.3	A
	Right Turn	10	4	44.0%	1.9	2.7	A
	Subtotal	505	365	72.2%	3.8	0.3	A
Total		1,163	1,019	87.6%	13.0	1.1	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	146	103.3%	17.2	2.7	B
	Through	206	201	97.7%	12.3	1.3	B
	Right Turn	7	13	182.9%	10.6	6.5	B
	Subtotal	354	360	101.6%	14.2	1.8	B
SB	Left Turn	84	68	81.0%	19.6	2.9	B
	Through	62	67	107.7%	10.1	2.9	B
	Right Turn						
	Subtotal	146	135	92.3%	14.8	2.1	B
EB	Left Turn						
	Through	528	516	97.8%	36.2	5.8	D
	Right Turn	110	105	95.3%	31.9	5.0	C
	Subtotal	638	621	97.4%	35.5	5.6	D
WB	Left Turn	10	5	48.0%	15.5	21.4	B
	Through	364	220	60.3%	9.4	0.9	A
	Right Turn	334	194	58.1%	7.5	1.1	A
	Subtotal	708	418	59.1%	8.7	0.9	A
Total		1,846	1,534	83.1%	21.4	2.5	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	3.5	7.0	A
	Through						
	Right Turn	40	42	106.0%	6.5	3.1	A
	Subtotal	45	45	99.6%	6.5	3.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	609	578	95.0%	36.7	14.8	D
	Right Turn	10	8	84.0%	30.9	17.8	C
	Subtotal	619	587	94.8%	36.7	14.8	D
WB	Left Turn	101	66	65.0%	29.9	3.8	C
	Through	703	420	59.7%	7.6	0.8	A
	Right Turn						
	Subtotal	804	485	60.3%	10.6	1.0	B
Total		1,468	1,117	76.1%	24.2	7.7	C

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	147	151	102.9%	25.0	6.9	C
	Through	29	25	85.5%	30.7	9.6	C
	Right Turn						
	Subtotal	176	176	100.0%	25.5	6.9	C
SB	Left Turn						
	Through	393	218	55.5%	130.3	25.0	F
	Right Turn	657	335	51.0%	122.2	24.3	F
	Subtotal	1,050	553	52.7%	125.5	24.1	F
EB	Left Turn	459	425	92.5%	28.6	8.1	C
	Through						
	Right Turn	190	185	97.3%	7.6	1.9	A
	Subtotal	649	610	93.9%	22.3	6.6	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,875	1,339	71.4%	65.2	8.0	E

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	354	365	103.1%	0.2	0.1	A
	Right Turn						
	Subtotal	354	365	103.1%	0.2	0.1	A
SB	Left Turn						
	Through	182	175	96.3%	0.9	0.1	A
	Right Turn						
	Subtotal	182	175	96.3%	0.9	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		536	540	100.7%	0.4	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	46	103.1%	0.1	0.1	A
	Subtotal	45	46	103.1%	0.1	0.1	A
SB	Left Turn Through Right Turn	111	74	67.0%	0.8	0.1	A
	Subtotal	111	74	67.0%	0.8	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	121	77.4%	0.5	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	354	365	103.1%	0.3	0.1	A
	Subtotal	354	365	103.1%	0.3	0.1	A
SB	Left Turn Through Right Turn	182	174	95.8%	0.1	0.1	A
	Subtotal	182	174	95.8%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		536	539	100.6%	0.2	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	46	102.2%	0.2	0.1	A
	Subtotal	45	46	102.2%	0.2	0.1	A
SB	Left Turn Through Right Turn	111	74	67.0%	0.1	0.1	A
	Subtotal	111	74	67.0%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	120	77.2%	0.1	0.0	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	9	131.4%	22.6	10.2	C
	Through	7	8	114.3%	8.2	4.4	A
	Right Turn	87	76	87.8%	6.9	1.7	A
	Subtotal	101	94	92.7%	9.0	1.9	A
SB	Left Turn	286	284	99.4%	15.5	2.5	B
	Through	268	278	103.6%	7.7	1.3	A
	Right Turn	29	24	81.4%	6.3	1.5	A
	Subtotal	583	586	100.4%	11.5	1.2	B
EB	Left Turn	3	1	40.0%	2.4	5.8	A
	Through	3	2	80.0%	4.0	8.3	A
	Right Turn	4	4	100.0%	2.0	2.1	A
	Subtotal	10	8	76.0%	4.5	4.7	A
WB	Left Turn	75	72	96.5%	12.9	2.2	B
	Through	13	14	104.6%	10.5	5.9	B
	Right Turn	166	181	109.2%	5.3	0.4	A
	Subtotal	254	267	105.2%	7.8	1.0	A
Total		948	954	100.6%	10.1	1.0	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	38	102.7%	6.1	0.8	A
	Through	32	35	110.0%	6.8	0.5	A
	Right Turn	36	33	91.1%	4.6	0.6	A
	Subtotal	105	106	101.0%	5.9	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	68	63	92.4%	8.2	1.2	A
	Through	194	194	100.2%	8.9	0.8	A
	Right Turn						
	Subtotal	262	257	98.2%	8.7	0.8	A
WB	Left Turn						
	Through	224	232	103.4%	6.4	0.5	A
	Right Turn	13	15	116.9%	4.0	0.9	A
	Subtotal	237	247	104.1%	6.2	0.5	A
Total		604	610	101.0%	7.2	0.5	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	13.0	19.9	B
	Through	5	4	88.0%	3.6	4.7	A
	Right Turn						
	Subtotal	10	8	84.0%	10.7	12.0	B
SB	Left Turn						
	Through	292	363	124.4%	16.0	2.1	B
	Right Turn	25	22	89.6%	13.2	4.9	B
	Subtotal	317	386	121.6%	15.8	1.9	B
EB	Left Turn	254	219	86.3%	26.6	9.0	C
	Through						
	Right Turn	34	36	105.9%	5.3	2.3	A
	Subtotal	288	255	88.6%	23.6	8.2	C
WB	Left Turn	5	4	88.0%	12.0	10.5	B
	Through	332	342	103.0%	12.1	1.6	B
	Right Turn	43	36	82.8%	4.4	1.3	A
	Subtotal	380	382	100.5%	11.5	1.6	B
Total		995	1,031	103.6%	16.2	2.2	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	10	80.0%	19.4	11.7	B
	Through	560	500	89.4%	10.4	1.7	B
	Right Turn	350	315	90.1%	6.8	0.8	A
	Subtotal	923	826	89.5%	9.2	1.3	A
SB	Left Turn	36	37	102.2%	30.4	4.0	C
	Through	551	542	98.3%	18.7	2.6	B
	Right Turn	5	4	88.0%	22.6	19.9	C
	Subtotal	592	583	98.4%	19.5	2.6	B
EB	Left Turn	5	4	72.0%	5.6	8.3	A
	Through	39	42	107.7%	16.1	5.9	B
	Right Turn	5	6	120.0%	5.8	4.9	A
	Subtotal	49	52	105.3%	14.4	4.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,564	1,460	93.4%	13.5	1.5	B

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	93	75	80.9%	14.5	2.7	B
	Right Turn	61	52	85.2%	4.2	1.0	A
	Subtotal	154	127	82.6%	10.4	1.9	B
SB	Left Turn	23	20	87.0%	13.8	6.5	B
	Through	44	41	92.7%	9.8	4.4	A
	Right Turn						
	Subtotal	67	61	90.7%	10.8	4.0	B
EB	Left Turn	5	4	80.0%	7.8	7.7	A
	Through	392	366	93.3%	9.0	0.9	A
	Right Turn	28	25	88.6%	4.8	2.5	A
	Subtotal	425	394	92.8%	8.7	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		646	582	90.2%	9.3	1.1	A

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	189	197	104.1%	8.6	1.7	A
	Through	158	163	103.0%	7.1	1.8	A
	Right Turn						
	Subtotal	347	360	103.6%	7.9	1.3	A
EB	Left Turn	5	4	72.0%	9.9	12.4	A
	Through	422	385	91.3%	8.5	0.7	A
	Right Turn	49	45	92.2%	3.5	1.4	A
	Subtotal	476	434	91.2%	8.0	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		823	794	96.4%	8.0	0.7	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	359	363	101.1%	8.2	0.7	A
	Right Turn	82	84	102.9%	6.5	1.4	A
	Subtotal	441	447	101.4%	7.8	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	328	320	97.7%	6.7	1.3	A
	Through	187	171	91.3%	7.9	1.1	A
	Right Turn						
	Subtotal	515	491	95.4%	7.1	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		956	938	98.2%	7.5	0.6	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	66	64	97.0%	45.3	10.4	D
	Through						
	Right Turn	499	497	99.6%	43.5	8.3	D
	Subtotal	565	561	99.3%	43.7	8.4	D
EB	Left Turn	605	505	83.4%	114.0	63.0	F
	Through	57	56	97.5%	105.8	67.9	F
	Right Turn						
	Subtotal	662	560	84.7%	113.1	63.5	F
WB	Left Turn						
	Through	94	97	103.4%	35.2	5.8	D
	Right Turn	24	23	95.0%	7.4	5.5	A
	Subtotal	118	120	101.7%	29.9	3.5	C
Total		1,345	1,242	92.3%	72.4	24.4	E

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	130	105	80.9%	15.7	2.0	B
	Through	863	766	88.8%	11.5	1.9	B
	Right Turn						
	Subtotal	993	872	87.8%	12.0	1.8	B
SB	Left Turn						
	Through						
	Right Turn	561	552	98.3%	12.8	4.5	B
	Subtotal	561	552	98.3%	12.8	4.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	452	445	98.4%	3.7	0.7	A
	Right Turn	71	74	104.2%	5.7	2.1	A
	Subtotal	523	519	99.2%	4.0	0.7	A
Total		2,077	1,942	93.5%	10.1	1.6	B

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	23	61.6%	12.6	3.8	B
	Through	95	76	80.0%	8.4	2.5	A
	Right Turn						
	Subtotal	132	99	74.8%	9.4	2.1	A
SB	Left Turn						
	Through	40	34	86.0%	14.6	4.6	B
	Right Turn	32	32	100.0%	5.5	1.5	A
	Subtotal	72	66	92.2%	10.2	3.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	59	97.0%	10.3	2.2	B
	Through	454	465	102.4%	8.2	0.7	A
	Right Turn	59	54	90.8%	8.2	1.7	A
	Subtotal	574	578	100.6%	8.4	0.7	A
Total		778	743	95.5%	8.7	0.7	A

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	202	196	97.2%	6.4	0.8	A
	Right Turn	5	9	176.0%	3.2	2.6	A
	Subtotal	207	205	99.1%	6.3	0.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	119	115	96.8%	6.8	2.2	A
	Through	569	571	100.3%	7.1	1.2	A
	Right Turn						
	Subtotal	688	686	99.7%	7.1	1.2	A
Total		895	891	99.6%	6.9	0.9	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	122	119	97.7%	7.3	1.0	A
	Through	329	328	99.7%	8.5	1.4	A
	Right Turn						
	Subtotal	451	447	99.2%	8.2	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	566	566	100.0%	9.0	0.6	A
	Right Turn	112	115	102.5%	6.7	1.7	A
	Subtotal	678	681	100.4%	8.5	0.6	A
Total		1,129	1,128	99.9%	8.4	0.4	A

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	55	46	83.6%	111.4	31.0	F
	Through	1,689	1,507	89.2%	76.5	11.8	E
	Right Turn	234	213	90.9%	49.6	8.3	D
	Subtotal	1,978	1,766	89.3%	74.1	11.3	E
SB	Left Turn	77	74	96.6%	59.6	14.1	E
	Through	132	134	101.5%	87.7	16.3	F
	Right Turn						
	Subtotal	209	208	99.7%	78.0	13.0	E
EB	Left Turn	11	10	90.9%	91.0	34.4	F
	Through	1,259	1,149	91.2%	83.1	12.3	F
	Right Turn	587	454	77.4%	160.8	24.3	F
	Subtotal	1,857	1,613	86.9%	105.1	15.7	F
NB	Left Turn						
	Through						
	Right Turn	48	51	106.7%	23.9	3.9	C
	Subtotal	48	51	106.7%	23.9	3.9	C
Total		4,092	3,638	88.9%	87.2	6.4	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	132	125	94.5%	32.3	4.6	C
	Right Turn	195	195	99.9%	24.9	4.7	C
	Subtotal	327	320	97.7%	27.7	4.2	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	861	750	87.1%	37.7	2.2	D
	Through	2,109	1,924	91.2%	14.8	1.3	B
	Right Turn	103	86	83.9%	13.3	3.2	B
	Subtotal	3,073	2,760	89.8%	21.0	0.9	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,400	3,079	90.6%	21.7	0.9	C

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	120	114	95.0%	18.3	3.3	B
	Through	201	198	98.7%	23.7	4.2	C
	Right Turn						
	Subtotal	321	312	97.3%	21.7	2.6	C
EB	Left Turn						
	Through	1,861	1,743	93.7%	7.3	0.5	A
	Right Turn	257	232	90.3%	6.9	0.9	A
	Subtotal	2,118	1,975	93.3%	7.3	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,439	2,288	93.8%	9.3	0.4	A

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	43	102.9%	43.9	5.8	D
	Through	65	84	129.8%	21.4	3.2	C
	Right Turn	299	361	120.8%	7.8	0.8	A
	Subtotal	406	489	120.4%	13.3	1.6	B
SB	Left Turn	78	88	113.3%	35.4	3.5	D
	Through	143	166	115.8%	18.9	3.1	B
	Right Turn	6	10	160.0%	10.0	16.1	A
	Subtotal	227	264	116.1%	23.7	2.6	C
EB	Left Turn	6	8	140.0%	40.8	19.5	D
	Through	254	305	120.2%	24.3	3.1	C
	Right Turn	98	116	118.0%	13.1	3.9	B
	Subtotal	358	429	119.9%	21.7	2.7	C
WB	Left Turn	164	185	112.9%	34.9	3.2	C
	Through	184	220	119.3%	16.6	4.6	B
	Right Turn	40	45	112.0%	3.7	0.8	A
	Subtotal	388	450	115.9%	22.8	3.5	C
Total		1,379	1,631	118.3%	19.8	1.7	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	15	95.0%	25.4	8.0	C
	Through	1	1	120.0%	12.1	19.8	B
	Right Turn	47	62	132.8%	11.6	2.8	B
	Subtotal	64	79	123.1%	14.8	2.3	B
SB	Left Turn	8	10	120.0%	35.2	15.9	D
	Through	6	8	126.7%	17.8	11.2	B
	Right Turn	3	5	173.3%	2.4	2.6	A
	Subtotal	17	22	131.8%	25.5	10.5	C
EB	Left Turn	1	1	80.0%	5.9	11.0	A
	Through	607	712	117.4%	16.3	1.8	B
	Right Turn	23	27	116.5%	11.4	4.6	B
	Subtotal	631	740	117.3%	16.2	1.9	B
WB	Left Turn	219	259	118.2%	30.5	3.5	C
	Through	369	441	119.6%	9.5	2.6	A
	Right Turn	5	4	88.0%	5.4	5.4	A
	Subtotal	593	704	118.8%	17.2	2.9	B
Total		1,305	1,546	118.4%	16.7	1.6	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	348	311	89.3%	16.9	1.9	B
	Right Turn	217	194	89.4%	11.9	2.4	B
	Subtotal	565	505	89.3%	15.0	2.0	B
SB	Left Turn	42	42	100.0%	31.8	14.5	C
	Through	140	138	98.6%	9.6	1.9	A
	Right Turn						
	Subtotal	182	180	98.9%	14.5	3.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	452	449	99.3%	9.7	3.0	A
	Through						
	Right Turn	6	8	126.7%	3.0	4.9	A
	Subtotal	458	456	99.7%	9.6	3.0	A
Total		1,205	1,141	94.7%	12.8	1.7	B

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	8.5	12.5	A
	Through	17	13	75.3%	2.1	3.1	A
	Right Turn	76	64	84.2%	0.8	0.6	A
	Subtotal	98	79	80.4%	1.4	0.9	A
SB	Left Turn	5	3	64.0%	4.0	5.8	A
	Through	5	4	72.0%	2.7	4.6	A
	Right Turn	101	96	94.7%	4.1	1.0	A
	Subtotal	111	102	92.3%	4.3	1.1	A
EB	Left Turn	23	20	87.0%	10.4	4.7	B
	Through	207	190	91.8%	4.4	1.4	A
	Right Turn	29	23	80.0%	1.7	0.7	A
	Subtotal	259	233	90.0%	4.6	1.4	A
WB	Left Turn	5	3	64.0%	5.6	8.9	A
	Through	352	360	102.4%	4.9	0.9	A
	Right Turn	5	6	128.0%	2.4	2.0	A
	Subtotal	362	370	102.2%	4.8	0.9	A
Total		830	784	94.5%	4.4	0.7	A

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	11	136.4%	41.3	20.0	D
	Through	277	256	92.3%	37.3	3.1	D
	Right Turn	148	141	95.4%	11.5	1.9	B
	Subtotal	433	408	94.1%	28.4	1.6	C
SB	Left Turn	91	79	86.6%	3.8	2.4	A
	Through	171	125	72.9%	25.3	4.9	C
	Right Turn	52	34	66.3%	11.3	5.2	B
	Subtotal	314	238	75.8%	15.9	2.3	B
EB	Left Turn	151	140	92.5%	76.8	9.7	E
	Through	731	649	88.7%	45.1	7.2	D
	Right Turn	5	6	126.7%	39.7	32.1	D
	Subtotal	887	795	89.6%	50.6	7.2	D
WB	Left Turn	36	34	95.8%	50.9	14.4	D
	Through	115	102	88.5%	40.2	5.6	D
	Right Turn	39	36	93.0%	7.9	3.7	A
	Subtotal	190	172	90.8%	36.1	5.3	D
Total		1,824	1,613	88.4%	38.3	4.0	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	88.0%	19.8	24.1	B
	Through	44	35	80.0%	32.1	6.4	C
	Right Turn	50	43	85.2%	8.2	1.4	A
	Subtotal	96	80	82.9%	19.6	3.1	B
SB	Left Turn	73	66	90.2%	26.6	5.4	C
	Through	11	7	67.2%	31.3	14.7	C
	Right Turn	23	21	90.3%	4.1	2.8	A
	Subtotal	107	94	87.8%	22.1	5.2	C
EB	Left Turn	249	223	89.5%	42.6	14.8	D
	Through	720	645	89.6%	15.0	3.7	B
	Right Turn	1	1	140.8%	1.1	1.4	A
	Subtotal	970	869	89.6%	22.2	6.2	C
WB	Left Turn	11	9	83.2%	31.0	16.6	C
	Through	165	150	90.9%	18.2	4.0	B
	Right Turn	141	122	86.9%	8.4	1.3	A
	Subtotal	317	282	88.8%	14.5	2.4	B
Total		1,490	1,324	88.9%	20.4	4.6	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	14	0	0.0%	0.0	0.0	A
	Through	2,315	2,344	101.3%	9.3	0.8	A
	Right Turn	30	0	0.0%	0.0	0.0	A
	Subtotal	2,359	2,344	99.4%	9.3	0.8	A
EB	Left Turn						
	Through	70	80	113.7%	15.1	2.8	B
	Right Turn	14	0	0.0%	0.0	0.0	A
	Subtotal	84	80	94.8%	15.1	2.8	B
WB	Left Turn	15	0	0.0%	0.0	0.0	A
	Through	81	92	113.6%	17.2	2.7	B
	Right Turn						
	Subtotal	96	92	95.8%	17.2	2.7	B
Total		2,539	2,516	99.1%	9.7	0.8	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	255	0	0.0%	0.0	0.0	A
	Through	2,013	2,320	115.2%	11.4	0.7	B
	Right Turn	76	0	0.0%	0.0	0.0	A
	Subtotal	2,344	2,320	99.0%	11.4	0.7	B
EB	Left Turn						
	Through	130	136	104.9%	15.2	2.1	B
	Right Turn	9	0	0.0%	0.0	0.0	A
	Subtotal	139	136	98.1%	15.2	2.1	B
WB	Left Turn	4	0	0.0%	0.0	0.0	A
	Through	135	138	102.2%	15.0	3.4	B
	Right Turn						
	Subtotal	139	138	99.3%	15.0	3.4	B
Total		2,622	2,594	98.9%	11.8	0.7	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	75	13	125	26	150	31	0%	0%
	Through/Right	2,725	75	21	125	39	125	35	0%	0%
SB	Left Turn	325	300	20	375	20	325	0	0%	0%
	Left/Through	1,500	1,300	161	1,775	105	1,525	17	25%	20%
	Right Turn	325	325	24	375	52	350	0	1%	0%
WB	Left Turn	1,275	50	10	100	20	100	24	0%	0%
	Through	275	50	13	100	19	100	18	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	13	200	32	200	35	0%	0%
	Through	325	75	26	125	42	125	43	0%	0%
NB	Left/Through	325	75	49	175	141	175	138	0%	0%
	Right Turn	1,175	325	119	475	248	475	228	11%	0%
WB	Through	225	75	20	125	25	125	29	0%	0%
	Right Turn	225	25	3	25	17	25	24	0%	0%
0										

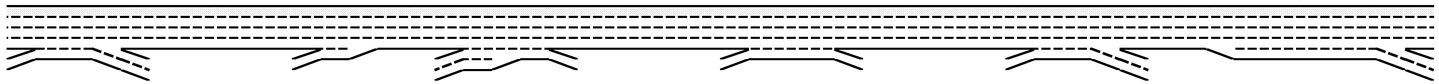
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	350	60	550	109	575	67	0%	0%
	Through	600	600	67	850	78	725	16	0%	33%
	Through/Right	600	600	18	650	21	650	23	0%	17%
NB	Right Turn	1,025	25	3	25	12	25	17	0%	0%
NE	Shared	975	875	84	1,075	61	1,000	14	0%	28%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	325	28	400	22	375	0	6%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

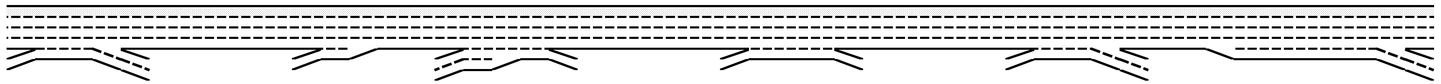
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	8,485	6,846	6,846	7,043	6,557	6,557	6,239	6,239	5,631	5,631
On Ramp Volume	339		197	397		626		373		
Off Ramp Volume	1,978			883		944		981		2,078
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	8,485	6,846	6,846	7,043	6,557	6,557	6,239	6,239	5,631	5,631
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	9,263	7,474	7,474	7,689	7,158	7,158	6,811	6,811	6,147	6,147
Flow (pcphpl)	2,316	1,868	1,868	1,922	1,790	1,790	1,703	1,703	1,537	1,229
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.99	0.80	0.80	0.82	0.76	0.76	0.72	0.72	0.65	0.52
Speed (mph)	53.1	61.9	61.9	61.1	62.8	62.8	63.7	63.7	64.7	65.0
Density (pcphpl)	43.6	30.2	30.2	31.4	28.5	28.5	26.7	26.7	23.7	18.9
LOS	E	D	D	D	D	D	D	D	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	9,698		7,730	8,104		7,914		7,251		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.83		0.82	0.69		0.67		0.62		
Flow Rate (pcphpl)	1,940		1,932	1,621		1,583		1,450		
Speed (mph)	60.9		61.0	64.3		64.5		65.0		
Density (pcphpl)	31.9		31.7	25.2		24.5		22.3		
LOS	D		D	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

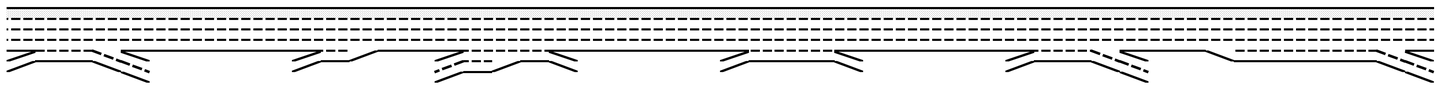
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	7,468			7,097		6,862		6,145		3,826
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.79			0.76		0.73		0.65		0.41
Flow Rate (pcphpl)	1,867			1,774		1,715		1,536		957
Speed (mph)	61.9			63.0		63.6		64.7		65.0
Density (pcphpl)	30.2			28.2		27.0		23.7		14.7
LOS	D			D		D		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



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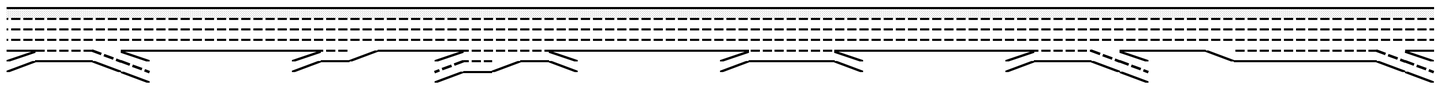
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	339		197	397		626		373		
PHF	0.79		0.78	0.97		0.84		0.86		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	436		256	415		756		440		
Flow Rate (pcphpl)	436		256	208		756		440		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.21		0.12	0.10		0.36		0.21		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

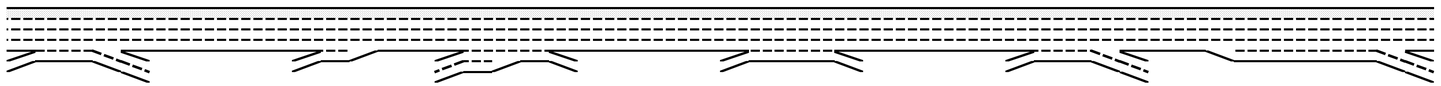
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	1,978			883		944		981		2,078
PHF	0.9			0.89		0.91		0.9		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	2,231			1,007		1,053		1,106		2,321
Flow Rate (pcphpl)	1,115			1,007		1,053		553		1,161
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.53			0.48		0.50		0.26		0.50
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,474							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.186							
v_{12} (pcph)			1,388							
v_3 (pcph)										
v_{34} (pcph)			6,085							
v_{12a} (pcph)			2,989							
v_{R12a} (pcph)			3,246							
Speed Index			0.38							
Area Speed			56.2							
Outer Lanes Volume			2,242							
Outer Lanes Speed			58.7							
Segment Speed			57.6							
v/c ratio			0.71							
Density			28.0							
LOS			D							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

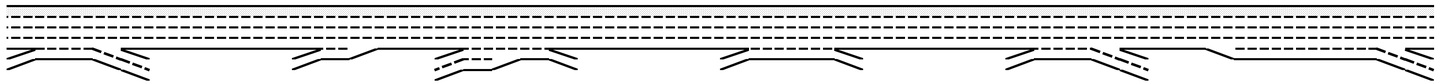
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										21.5
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

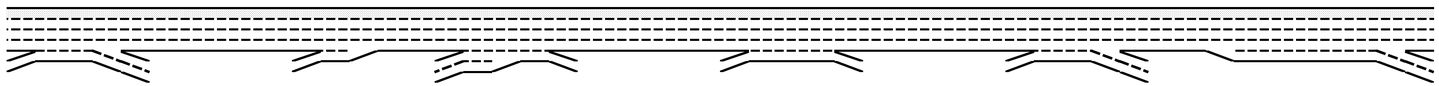
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

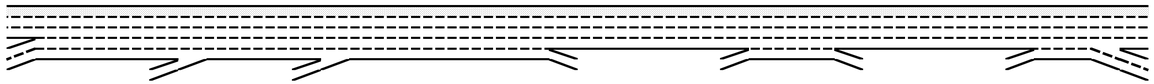
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.80	0.71		0.76		0.72		0.65	
Segment Density		30.2	28.0		28.5		26.7		23.7	21.5
Segment LOS		D	D		D		D		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

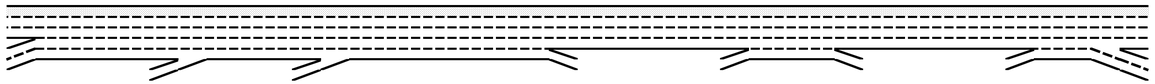
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	4,763	7,310	8,088	8,431	7,775	7,775	6,890	6,890
On Ramp Volume	2,547	778	343			725		312
Off Ramp Volume				656		1,610		1,734
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	4,763	7,310	8,088	8,431	7,775	7,775	6,890	6,890
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,200	7,980	8,829	9,204	8,488	8,488	7,522	7,522
Flow (pcphpl)	1,733	1,596	1,766	1,841	2,122	2,122	1,880	1,880
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.74	0.68	0.75	0.78	0.90	0.90	0.80	0.80
Speed (mph)	63.4	64.5	63.1	62.2	57.6	57.6	61.7	61.7
Density (pcphpl)	27.3	24.8	28.0	29.6	36.8	36.8	30.5	30.5
LOS	D	C	D	D	E	E	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	8,045	8,829	9,239			9,305		7,845
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.68	0.75	0.79			0.79		0.67
Flow Rate (pcphpl)	1,609	1,766	1,848			1,861		1,569
Speed (mph)	64.4	63.1	62.2			62.0		64.6
Density (pcphpl)	25.0	28.0	29.7			30.0		24.3
LOS	C	D	D			D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

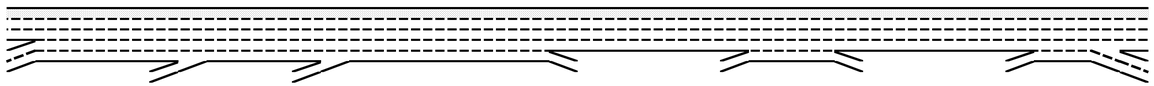
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				8,503		7,510		5,889
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.90		0.80		0.63
Flow Rate (pcphpl)				2,126		1,877		1,472
Speed (mph)				57.5		61.8		64.9
Density (pcphpl)				36.9		30.4		22.7
LOS				E		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

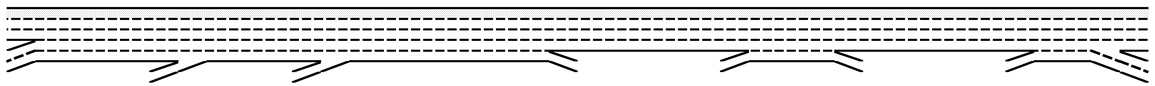
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,547	778	343			725		312
PHF	0.94	0.93	0.85			0.9		0.98
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,845	849	410			818		323
Flow Rate (pcphpl)	1,423	849	410			818		323
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.62	0.40	0.20			0.39		0.15

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

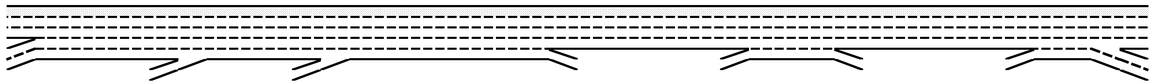
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				656		1,610		1,734
PHF				0.95		0.91		0.9
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				701		1,796		1,956
Flow Rate (pcphpl)				701		1,796		978
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.33		0.86		0.47
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		5,706	6,329					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.112	0.167					
v_{12} (pcph)		637	1,054					
v_3 (pcph)								
v_{34} (pcph)		5,069	5,275					
v_{12a} (pcph)		2,282	2,532					
v_{R12a} (pcph)		3,131	2,941					
Speed Index		0.40	0.37					
Area Speed		55.8	56.5					
Outer Lanes Volume		1,712	1,899					
Outer Lanes Speed		60.6	60.0					
Segment Speed		58.2	58.4					
v/c ratio		0.68	0.64					
Density		28.9	26.5					
LOS		D	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

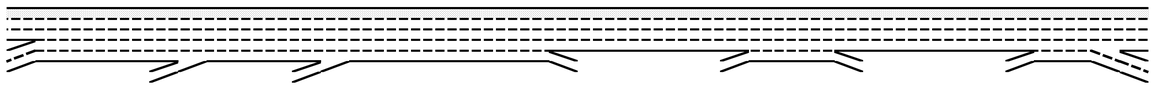
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				7,363				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.544				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				3,606				
v_3 (pcph)								
v_{34} (pcph)				3,757				
v_{12a} (pcph)				3,606				
Speed Index				0.36				
Area Speed				56.7				
Outer Lanes Volume				1,879				
Outer Lanes Speed				67.9				
Segment Speed				61.9				
v/c ratio				0.82				
Density				28.5				
LOS				D				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

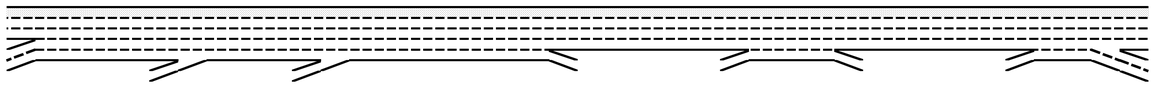
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8

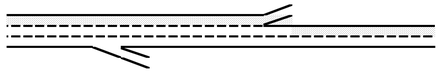


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.68	0.68	0.64	0.82	0.90		0.80	
Segment Density	25.0	28.9	26.5	28.5	36.8		30.5	
Segment LOS	C	D	C	D	E		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

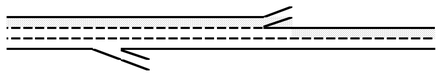


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,931	1,709	1,529
On Ramp Volume			
Off Ramp Volume	222	180	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,931	1,709	1,529
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,085	1,845	1,651
Flow (pcphpl)	695	615	825
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.30	0.26	0.34
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	10.7	8.8	11.8
LOS	A	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

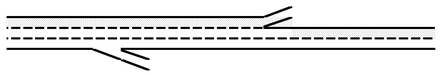


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	1,845	1,651	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.26	0.34	
Flow Rate (pcphpl)	615	825	
Speed (mph)	65.0	70.0	
Density (pcphpl)	9.5	11.8	
LOS	A	B	

Location	1	2	3



Key

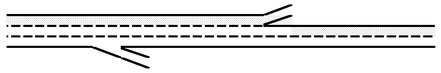
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3

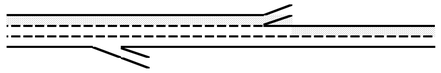


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	222	180	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	240	194	
Flow Rate (pcphpl)	240	194	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.11	0.10	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		240	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

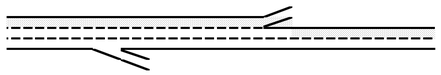


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,085		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.697		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.697		
v_{12} (pcph)	1,526		
v_3 (pcph)	559		
v_{34} (pcph)			
v_{12a} (pcph)	1,526		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	559		
Outer Lanes Speed	71.3		
Segment Speed	60.8		
v/c ratio	0.35		
Density	16.0		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

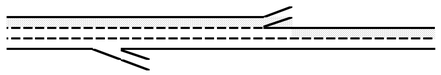


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

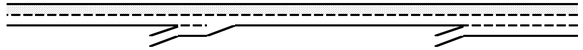
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.35	0.26	0.34
Segment Density	16.0	8.8	11.8
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4



Key

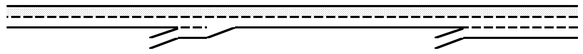
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	3,045	3,045	3,299	3,299
On Ramp Volume		254		419
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	3,045	3,045	3,299	3,299
PHF	0.88	0.88	0.88	0.88
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,512	3,512	3,805	3,805
Flow (pcphpl)	1,756	1,756	1,903	1,268
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.78	0.75	0.81	0.54
Speed (mph)	55.0	63.2	61.4	65.0
Density (pcphpl)	31.9	27.8	31.0	19.5
LOS	D	D	D	C
Operations for Segment GP Lanes				
Flow (pcph)		3,805		4,288
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.81		0.61
Flow Rate (pcphpl)		1,903		1,429
Speed (mph)		61.4		65.0
Density (pcphpl)		31.0		22.0
LOS		D		C

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

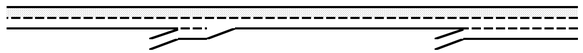


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

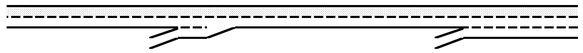


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		254		419
PHF		0.88		0.88
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		293		483
Flow Rate (pcphpl)		293		483
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.14		0.23

Location	1	2	3	4



Key

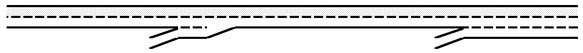
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,512		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,512		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,512		
v_{R12a} (pcph)		3,805		
Speed Index		0.43		
Area Speed		55.1		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		55.1		
v/c ratio		0.83		
Density		30.3		
LOS		D		

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: AM Peak Hour

Location	1	2	3	4

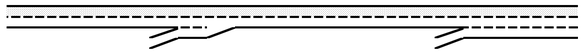


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

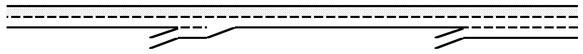


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

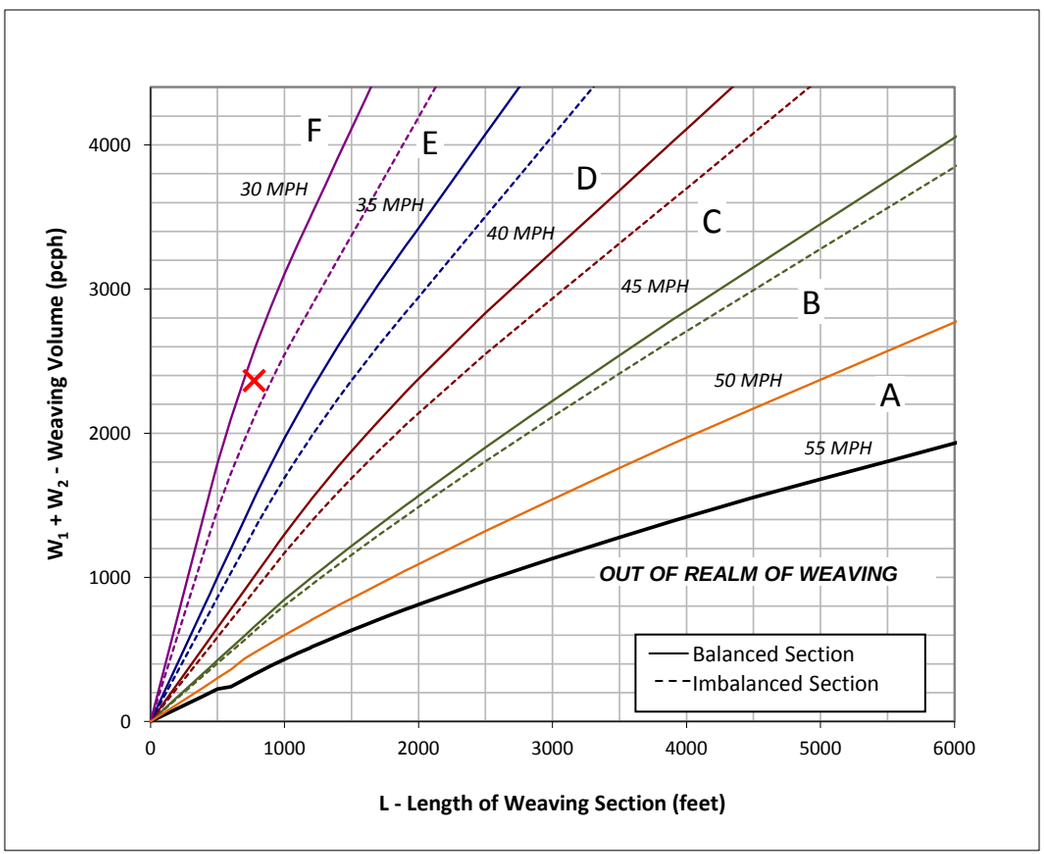
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.78	0.83	0.81	0.61
Segment Density	31.9	30.3	31.0	22.0
Segment LOS	D	D	D	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,548	Volume (vph)*	339	Volume (vph)*	1,978
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,958	Volume (pcph)	346	Volume (pcph)	2,018



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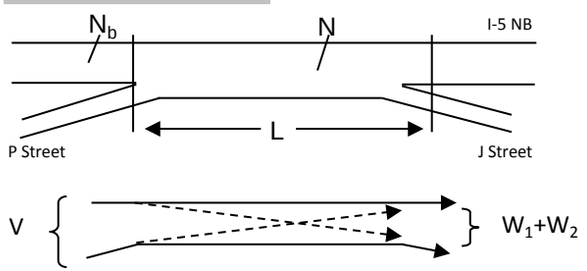


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	31.0
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,930
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

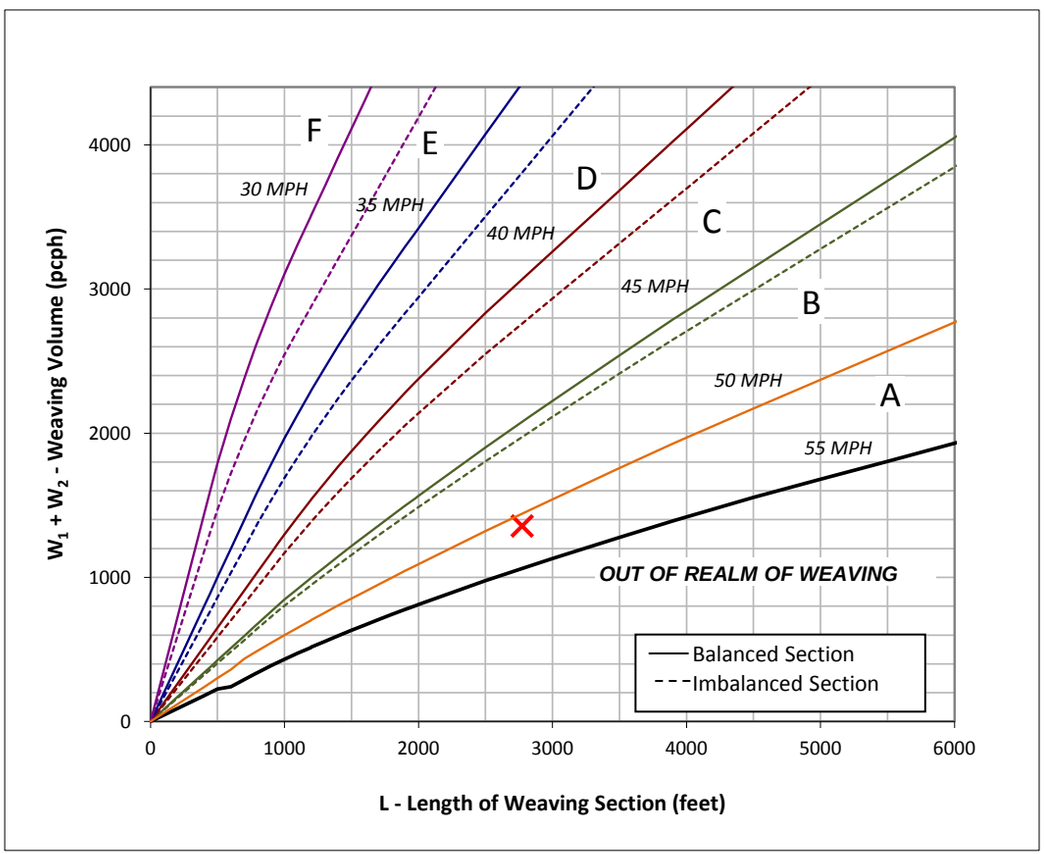
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,350	Volume (vph)*	397	Volume (vph)*	933
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,703	Volume (pcph)	405	Volume (pcph)	952



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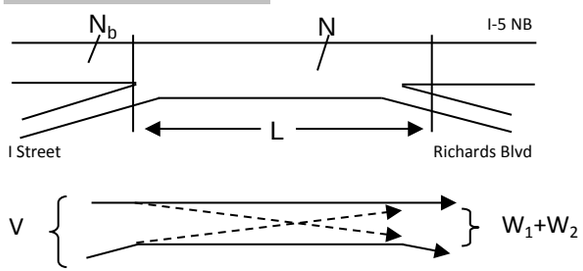


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   50 MPH and **55 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **51.1**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,541**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

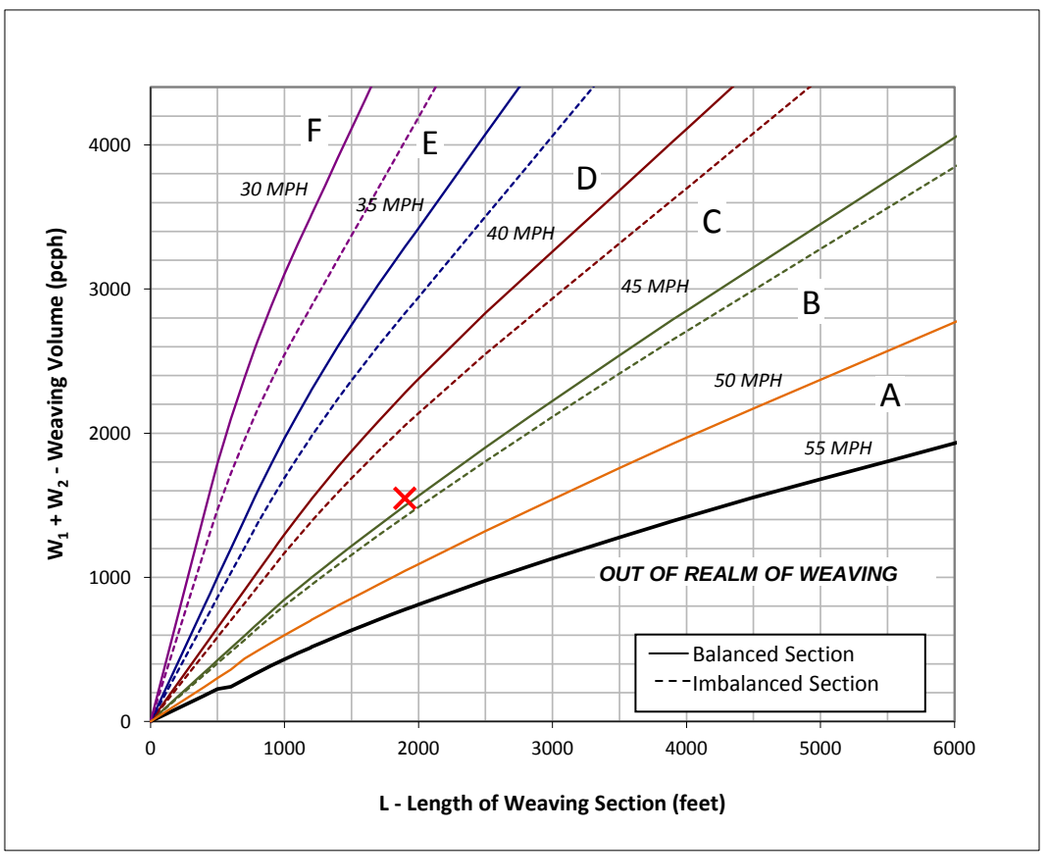
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,093	Volume (vph)*	594	Volume (vph)*	925
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,433	Volume (pcph)	606	Volume (pcph)	944



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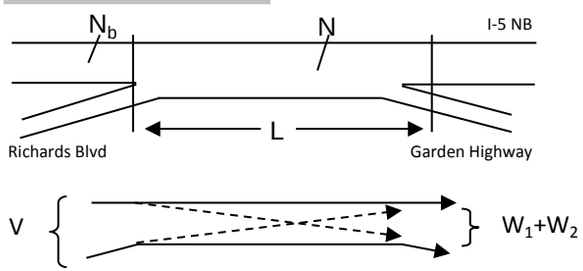


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	44.0
4. Weaving Intensity Factor (k)	2.10
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,620
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

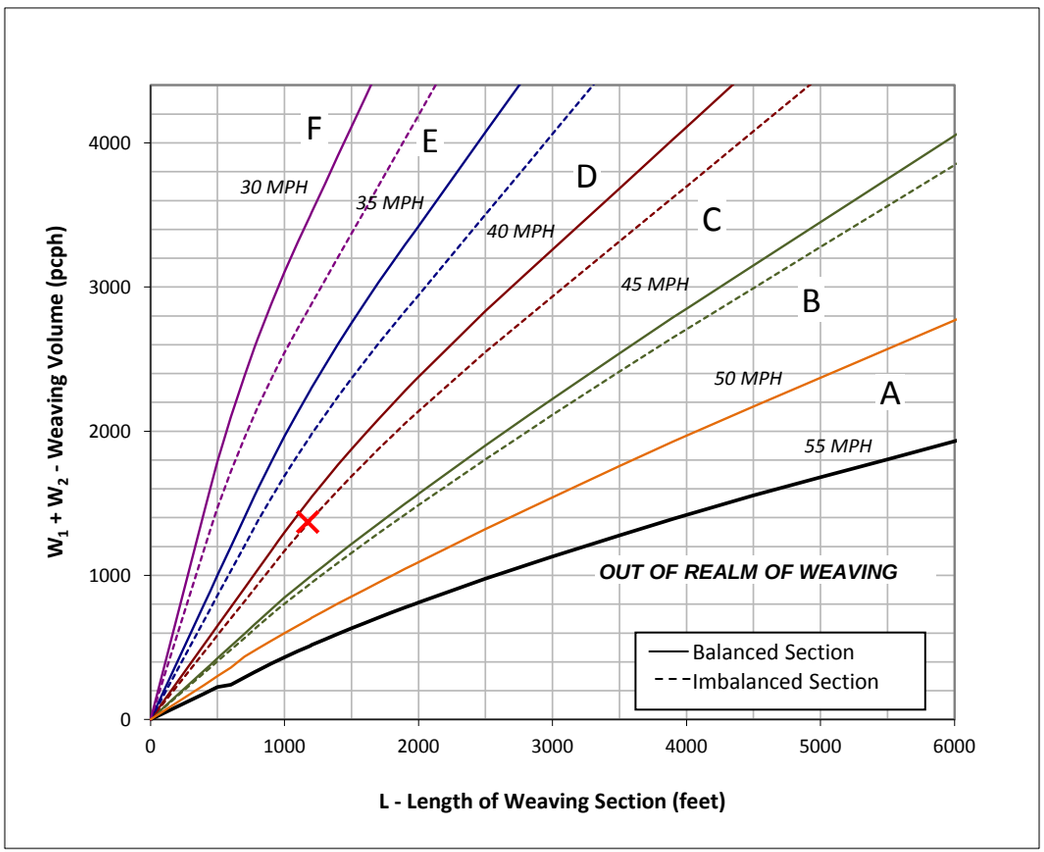
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,522	Volume (vph)*	373	Volume (vph)*	971
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,835	Volume (pcph)	380	Volume (pcph)	990



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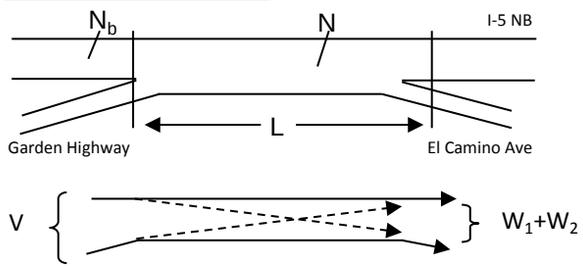


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.3
4. Weaving Intensity Factor (k)	2.41
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,474
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

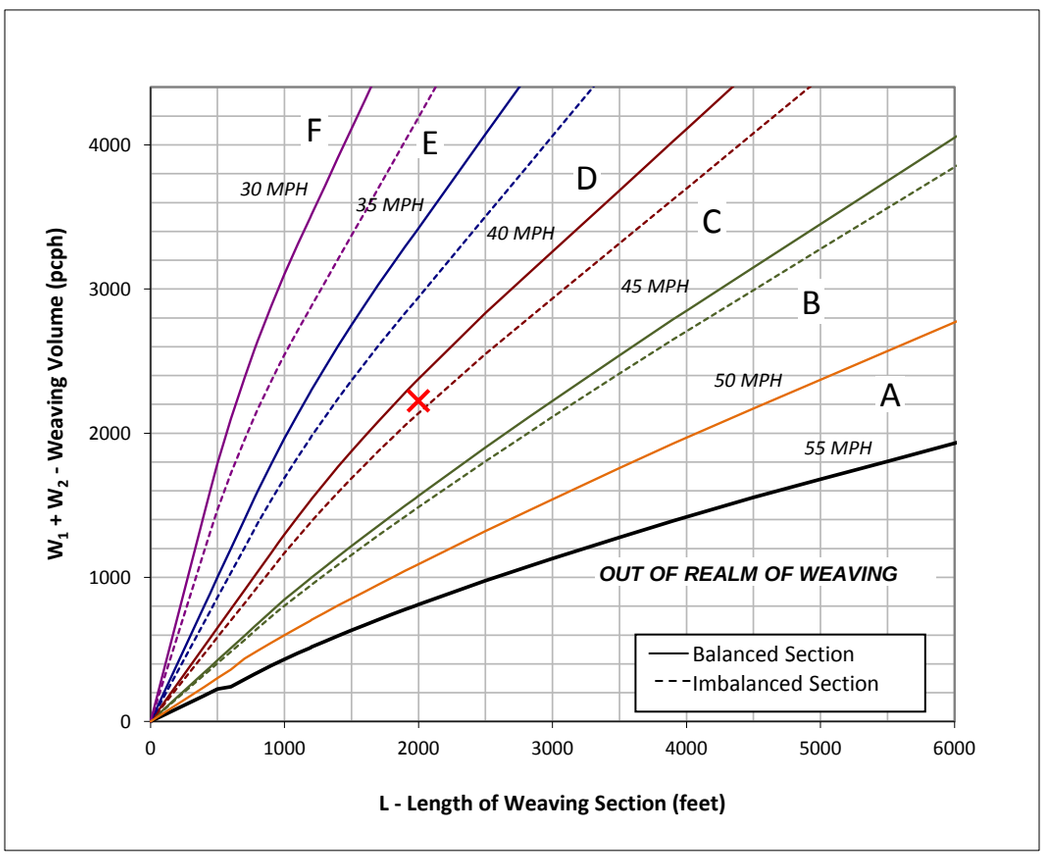
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

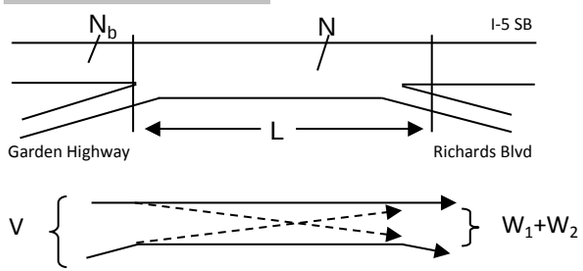
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,500	Volume (vph)*	700	Volume (vph)*	1,480
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,908	Volume (pcph)	714	Volume (pcph)	1,510



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	39.4
4. Weaving Intensity Factor (k)	2.56
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	2,005
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

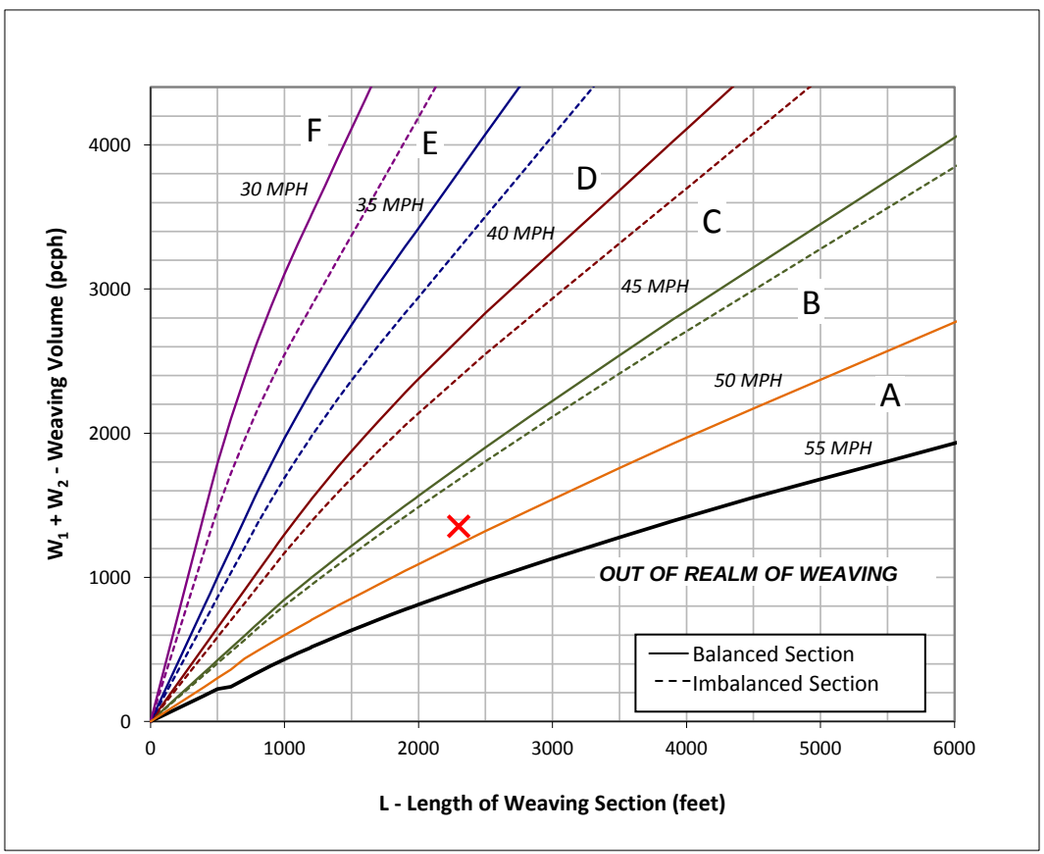
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus Medical Center AM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,202	Volume (vph)*	300	Volume (vph)*	1,027
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,548	Volume (pcph)	306	Volume (pcph)	1,048



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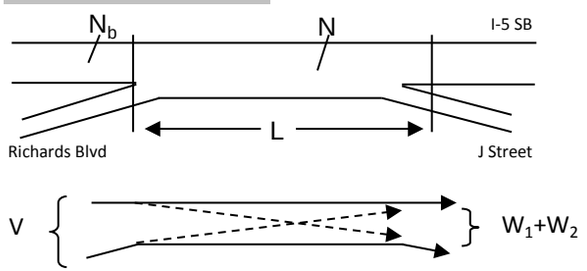


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	48.8
4. Weaving Intensity Factor (k)	1.32
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,529
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	510	500	98.0%	28.3	2.9	C
	Through	69	71	103.2%	29.9	4.1	C
	Right Turn	314	306	97.5%	9.8	1.9	A
	Subtotal	893	877	98.2%	22.0	2.2	C
EB	Left Turn						
	Through	594	558	94.0%	83.6	27.9	F
	Right Turn	58	56	95.9%	8.2	3.4	A
	Subtotal	652	614	94.2%	76.5	24.6	E
WB	Left Turn	660	466	70.7%	17.0	4.2	B
	Through	393	272	69.2%	9.9	1.4	A
	Right Turn						
	Subtotal	1,053	738	70.1%	14.4	3.0	B
Total		2,598	2,229	85.8%	34.5	7.1	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	51	88.3%	26.2	6.3	C
	Through	10	10	96.0%	24.8	18.6	C
	Right Turn	431	412	95.6%	9.4	1.2	A
	Subtotal	499	473	94.7%	11.7	1.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	432	373	86.3%	58.0	5.9	E
	Through	672	662	98.5%	1.7	0.3	A
	Right Turn						
	Subtotal	1,104	1,034	93.7%	22.0	2.5	C
WB	Left Turn						
	Through	995	682	68.6%	16.0	1.7	B
	Right Turn	1,393	892	64.1%	5.5	0.3	A
	Subtotal	2,388	1,575	65.9%	10.0	0.8	A
Total		3,991	3,082	77.2%	14.3	1.0	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	863	486	56.3%	319.1	95.5	F
	Through	41	20	48.8%	326.3	95.9	F
	Right Turn	13	10	73.8%	228.9	90.1	F
	Subtotal	917	516	56.2%	317.5	95.0	F
SB	Left Turn	34	30	88.2%	36.3	8.2	D
	Through	23	18	80.0%	38.5	14.3	D
	Right Turn	166	169	101.9%	17.8	4.2	B
	Subtotal	223	218	97.6%	22.0	4.8	C
EB	Left Turn	80	68	85.5%	27.6	4.0	C
	Through	688	686	99.7%	16.3	3.1	B
	Right Turn	335	344	102.8%	3.0	0.3	A
	Subtotal	1,103	1,098	99.6%	12.8	1.8	B
WB	Left Turn	18	17	93.3%	40.9	17.0	D
	Through	1,359	964	70.9%	66.7	8.5	E
	Right Turn	9	6	62.2%	47.2	39.4	D
	Subtotal	1,386	986	71.1%	66.3	8.4	E
Total		3,629	2,818	77.6%	87.4	15.8	F

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	69	77.8%	62.6	15.9	E
	Through						
	Right Turn	15	16	104.0%	4.7	3.6	A
	Subtotal	104	85	81.5%	53.6	16.4	D
SB	Left Turn	39	33	84.1%	30.6	8.9	C
	Through						
	Right Turn	17	18	108.2%	42.0	28.1	D
	Subtotal	56	51	91.4%	37.1	11.5	D
EB	Left Turn	13	13	101.5%	47.7	21.6	D
	Through	710	686	96.7%	3.6	0.9	A
	Right Turn	12	12	100.0%	3.7	1.9	A
	Subtotal	735	712	96.8%	4.5	1.1	A
WB	Left Turn	2	1	60.0%	21.4	35.5	C
	Through	1,280	906	70.8%	56.3	19.3	E
	Right Turn	10	12	116.0%	62.0	52.6	E
	Subtotal	1,292	919	71.1%	56.3	19.5	E
Total		2,187	1,767	80.8%	34.5	10.6	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	22	93.3%	39.2	14.2	D
	Through	5	6	128.0%	21.2	23.2	C
	Right Turn	24	23	95.0%	7.0	2.3	A
	Subtotal	53	52	97.4%	24.0	7.8	C
SB	Left Turn	24	23	95.0%	35.4	12.1	D
	Through	19	16	86.3%	29.3	15.7	C
	Right Turn	49	51	103.7%	20.9	6.9	C
	Subtotal	92	90	97.8%	26.2	5.4	C
EB	Left Turn	8	6	80.0%	32.5	22.3	C
	Through	751	713	95.0%	5.8	2.3	A
	Right Turn	5	5	104.0%	4.1	9.0	A
	Subtotal	764	725	94.9%	6.1	2.3	A
WB	Left Turn	11	5	47.3%	32.3	29.6	C
	Through	1,219	931	76.4%	51.7	29.2	D
	Right Turn	10	8	80.0%	65.2	59.0	E
	Subtotal	1,240	944	76.2%	52.0	29.1	D
Total		2,149	1,811	84.3%	31.1	14.8	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	60.0%	23.9	30.7	C
	Through	5	6	112.0%	16.5	18.3	B
	Right Turn	8	7	85.0%	3.8	2.7	A
	Subtotal	17	15	87.1%	18.5	10.4	B
SB	Left Turn	8	7	90.0%	29.5	20.3	C
	Through	5	6	112.0%	14.2	14.2	B
	Right Turn	70	66	93.7%	17.2	4.4	B
	Subtotal	83	78	94.5%	19.1	3.3	B
EB	Left Turn	16	14	90.0%	37.7	21.2	D
	Through	778	742	95.4%	3.7	1.1	A
	Right Turn	5	6	112.0%	2.1	3.0	A
	Subtotal	799	762	95.4%	4.5	1.3	A
WB	Left Turn	1	1	120.0%	22.9	38.0	C
	Through	1,166	989	84.8%	26.8	24.2	C
	Right Turn	3	2	53.3%	20.5	47.7	C
	Subtotal	1,170	992	84.8%	27.0	24.3	C
Total		2,069	1,848	89.3%	17.0	12.4	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	49	45.2%	38.9	9.2	D
	Through	27	13	47.4%	46.0	22.6	D
	Right Turn	519	280	54.0%	22.6	7.6	C
	Subtotal	654	342	52.3%	25.9	8.0	C
SB	Left Turn	53	56	105.7%	36.1	10.0	D
	Through	91	100	109.9%	31.2	4.2	C
	Right Turn	76	76	100.0%	31.9	4.0	C
	Subtotal	220	232	105.5%	32.7	2.4	C
EB	Left Turn	4	3	70.0%	17.9	28.5	B
	Through	703	653	92.9%	29.0	4.8	C
	Right Turn	87	86	98.9%	22.3	5.9	C
	Subtotal	794	742	93.4%	28.3	5.0	C
WB	Left Turn	217	190	87.7%	45.7	8.6	D
	Through	988	956	96.8%	21.4	3.8	C
	Right Turn	14	16	117.1%	19.9	15.7	B
	Subtotal	1,219	1,163	95.4%	25.3	3.7	C
Total		2,887	2,479	85.9%	27.1	3.2	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	42	115.6%	33.2	4.8	C
	Through	3	3	93.3%	20.0	26.3	B
	Right Turn	82	87	105.9%	9.4	1.9	A
	Subtotal	121	131	108.4%	17.5	2.3	B
SB	Left Turn	84	86	102.9%	29.8	4.9	C
	Through	63	59	93.3%	27.1	6.2	C
	Right Turn	134	124	92.5%	11.1	1.3	B
	Subtotal	281	269	95.8%	20.3	1.7	C
EB	Left Turn	37	29	78.9%	43.5	11.5	D
	Through	1,194	929	77.8%	8.4	1.9	A
	Right Turn	44	28	62.7%	6.0	1.7	A
	Subtotal	1,275	986	77.3%	9.3	1.7	A
WB	Left Turn	7	8	108.6%	36.7	21.3	D
	Through	971	936	96.4%	7.2	1.1	A
	Right Turn	17	17	98.8%	9.7	7.5	A
	Subtotal	995	961	96.6%	7.5	1.1	A
Total		2,672	2,347	87.8%	10.3	0.9	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	21	92.2%	34.6	9.0	C
	Through	6	6	93.3%	22.6	16.2	C
	Right Turn	30	38	128.0%	16.1	5.6	B
	Subtotal	59	65	110.5%	23.1	5.5	C
SB	Left Turn	29	27	93.8%	28.5	6.9	C
	Through	10	12	124.0%	32.8	19.2	C
	Right Turn	27	28	103.7%	9.4	3.3	A
	Subtotal	66	68	102.4%	22.8	6.7	C
EB	Left Turn	14	10	71.4%	50.1	21.0	D
	Through	1,319	1,063	80.6%	8.6	1.9	A
	Right Turn	27	20	75.6%	6.1	3.5	A
	Subtotal	1,360	1,093	80.4%	8.9	1.8	A
WB	Left Turn	18	16	88.9%	40.4	10.9	D
	Through	945	924	97.7%	7.1	1.0	A
	Right Turn	6	4	73.3%	8.8	8.2	A
	Subtotal	969	944	97.4%	7.8	1.1	A
Total		2,454	2,170	88.4%	9.3	1.3	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	51	84.7%	90.6	19.5	F
	Through	3,908	3,466	88.7%	58.4	14.2	E
	Right Turn	9	8	93.3%	35.7	23.7	D
	Subtotal	3,977	3,525	88.6%	58.8	14.1	E
SB	Left Turn						
	Through	1,912	1,854	96.9%	40.7	13.6	D
	Right Turn	897	880	98.1%	15.3	7.6	B
	Subtotal	2,809	2,733	97.3%	32.6	11.8	C
EB	Left Turn	1,106	792	71.6%	72.8	19.6	E
	Through						
	Right Turn	117	89	75.9%	20.3	11.7	C
	Subtotal	1,223	881	72.1%	67.5	18.5	E
WB	Left Turn						
	Through	5	5	104.0%	82.9	81.2	F
	Right Turn	7	7	102.9%	18.1	14.8	B
	Subtotal	12	12	103.3%	50.3	47.0	D
Total		8,021	7,152	89.2%	49.8	10.2	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	670	409	61.1%	225.7	95.9	F
	Right Turn	2	1	60.0%	192.7	89.6	F
	Subtotal	672	410	61.1%	225.6	96.0	F
SB	Left Turn	70	63	89.7%	9.3	1.5	A
	Through	306	325	106.1%	5.9	0.5	A
	Right Turn						
	Subtotal	376	388	103.1%	6.5	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	1	80.0%	26.3	71.0	D
	Through						
	Right Turn	247	130	52.8%	217.7	129.3	F
	Subtotal	248	131	52.9%	217.3	128.9	F
Total		1,296	929	71.7%	121.9	31.0	F

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	240	100.0%	5.6	0.4	A
	Through	45	43	95.1%	6.4	0.5	A
	Right Turn						
	Subtotal	285	283	99.2%	5.7	0.3	A
SB	Left Turn						
	Through	27	20	72.6%	7.9	0.8	A
	Right Turn	8	7	90.0%	3.9	1.7	A
	Subtotal	35	27	76.6%	6.9	1.1	A
EB	Left Turn	8	6	70.0%	4.1	2.7	A
	Through						
	Right Turn	64	60	94.4%	3.1	0.4	A
	Subtotal	72	66	91.7%	3.3	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	376	95.8%	5.4	0.4	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	98	52	53.5%	105.1	21.2	F
	Through	632	327	51.7%	114.9	24.4	F
	Right Turn	270	150	55.6%	110.3	26.3	F
	Subtotal	1,000	529	52.9%	112.7	23.4	F
SB	Left Turn	36	34	94.4%	58.6	17.4	E
	Through	346	334	96.4%	41.4	7.4	D
	Right Turn	15	19	128.0%	41.3	15.5	D
	Subtotal	397	387	97.4%	43.0	7.3	D
EB	Left Turn	1	0	40.0%	0.6	1.9	A
	Through	55	49	89.5%	45.2	5.2	D
	Right Turn	18	20	113.3%	13.8	10.6	B
	Subtotal	74	70	94.6%	36.4	3.1	D
WB	Left Turn	344	284	82.6%	71.5	22.8	E
	Through	58	52	89.0%	73.4	18.4	E
	Right Turn	19	18	94.7%	26.1	12.1	C
	Subtotal	421	354	84.0%	69.7	21.7	E
Total		1,892	1,340	70.8%	76.6	12.9	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	46	106.0%	44.8	10.2	D
	Through	87	86	98.4%	33.5	5.6	C
	Right Turn	22	21	94.5%	28.8	14.3	C
	Subtotal	152	152	100.0%	36.7	5.2	D
SB	Left Turn	5	4	80.0%	23.2	28.3	C
	Through	109	102	93.2%	41.2	6.0	D
	Right Turn	7	6	85.7%	30.9	19.8	C
	Subtotal	121	112	92.2%	41.2	5.7	D
EB	Left Turn						
	Through	241	156	64.6%	32.6	6.5	C
	Right Turn	61	37	60.3%	22.2	10.7	C
	Subtotal	302	192	63.7%	30.9	6.6	C
SW	Left Turn	34	34	98.8%	10.6	4.7	B
	Through	1,619	1,535	94.8%	12.9	2.5	B
	Right Turn	328	311	94.9%	22.2	5.1	C
	Subtotal	1,981	1,880	94.9%	14.4	2.9	B
Total		2,556	2,336	91.4%	18.4	1.9	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	55	102.2%	13.1	2.8	B
	Through	3,401	3,434	101.0%	11.7	1.2	B
	Right Turn	2	2	80.0%	2.0	3.6	A
	Subtotal	3,457	3,491	101.0%	11.7	1.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	264	256	97.0%	21.1	3.2	C
	Through	3	4	120.0%	10.3	10.0	B
	Right Turn						
	Subtotal	267	260	97.2%	21.0	3.3	C
WB	Left Turn						
	Through	10	6	56.0%	11.2	11.2	B
	Right Turn	3	3	93.3%	6.0	10.6	A
	Subtotal	13	8	64.6%	10.4	10.8	B
Total		3,737	3,759	100.6%	12.4	1.3	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	31	100.6%	18.0	4.6	B
	Through	13	13	101.5%	15.5	10.2	B
	Right Turn						
	Subtotal	44	44	100.9%	16.8	5.4	B
SB	Left Turn						
	Through	158	146	92.7%	16.8	3.0	B
	Right Turn	65	59	90.5%	10.3	2.8	B
	Subtotal	223	205	92.0%	14.8	2.1	B
EB	Left Turn						
	Through	8	11	140.0%	31.0	7.8	C
	Right Turn						
	Subtotal	8	11	140.0%	31.0	7.8	C
WB	Left Turn	79	76	95.7%	8.2	2.5	A
	Through	1,943	1,827	94.0%	11.0	1.2	B
	Right Turn	7	5	68.6%	4.1	2.4	A
	Subtotal	2,029	1,907	94.0%	10.9	1.2	B
Total		2,304	2,168	94.1%	11.5	1.1	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	368	306	83.3%	23.6	28.6	C
	Right Turn	23	24	106.1%	4.5	7.1	A
	Subtotal	391	331	84.6%	22.3	27.3	C
SB	Left Turn	93	94	101.1%	18.9	3.9	B
	Through	214	226	105.4%	12.1	1.6	B
	Right Turn						
	Subtotal	307	320	104.1%	14.2	1.6	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	58	56	96.6%	12.2	4.7	B
	Through						
	Right Turn	304	275	90.5%	16.3	11.9	B
	Subtotal	362	331	91.5%	15.6	10.3	B
Total		1,060	982	92.6%	16.6	10.2	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	287	265	92.4%	1.5	0.4	A
	Through						
	Right Turn						
	Subtotal	287	265	92.4%	1.5	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	558	525	94.1%	26.9	33.7	C
	Subtotal	558	525	94.1%	26.9	33.7	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		845	790	93.5%	18.1	21.5	B

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	337	90.1%	32.6	27.3	C
	Right Turn	318	277	87.0%	31.6	34.5	C
	Subtotal	692	614	88.7%	32.3	31.0	C
SB	Left Turn	86	66	76.3%	65.7	38.1	E
	Through	409	390	95.5%	7.8	1.0	A
	Right Turn						
	Subtotal	495	456	92.1%	15.4	4.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	436	383	87.8%	38.4	4.9	D
	Through						
	Right Turn	63	61	97.1%	27.5	4.4	C
	Subtotal	499	444	89.0%	36.8	4.7	D
Total		1,686	1,514	89.8%	27.8	12.1	C

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	87	92	105.3%	14.3	5.9	B
	Through						
	Right Turn	112	114	102.1%	8.9	3.7	A
	Subtotal	199	206	103.5%	11.5	4.2	B
EB	Left Turn	109	99	90.6%	18.0	14.8	B
	Through	295	230	77.8%	16.6	13.1	B
	Right Turn						
	Subtotal	404	328	81.3%	16.7	12.5	B
WB	Left Turn						
	Through	387	335	86.5%	19.0	3.6	B
	Right Turn	32	27	85.0%	10.3	1.3	B
	Subtotal	419	362	86.4%	18.4	3.5	B
Total		1,022	896	87.7%	16.1	5.1	B

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	284	216	76.1%	46.7	29.1	D
	Through						
	Right Turn	100	85	84.8%	3.2	2.8	A
	Subtotal	384	301	78.3%	34.3	20.9	C
EB	Left Turn	24	14	56.7%	78.1	71.8	E
	Through	358	261	73.0%	62.7	43.3	E
	Right Turn						
	Subtotal	382	275	71.9%	63.2	43.7	E
WB	Left Turn						
	Through	319	281	88.0%	7.6	1.5	A
	Right Turn	199	169	84.8%	3.8	0.7	A
	Subtotal	518	450	86.8%	6.2	1.1	A
Total		1,284	1,025	79.8%	28.9	15.8	C

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	12	120.0%	28.9	16.5	C
	Through						
	Right Turn	10	12	116.0%	2.6	1.9	A
	Subtotal	20	24	118.0%	17.6	13.8	B
EB	Left Turn	10	6	60.0%	128.3	95.6	F
	Through	632	372	58.9%	173.5	85.4	F
	Right Turn						
	Subtotal	642	378	58.9%	173.2	85.8	F
WB	Left Turn						
	Through	508	445	87.6%	4.2	0.7	A
	Right Turn	10	11	112.0%	2.2	1.8	A
	Subtotal	518	456	88.1%	4.1	0.7	A
Total		1,180	858	72.7%	77.3	34.0	E

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	104	108.8%	18.9	4.4	B
	Through	127	140	110.6%	12.2	1.9	B
	Right Turn	5	3	64.0%	10.2	9.4	B
	Subtotal	228	248	108.8%	15.1	2.4	B
SB	Left Turn	339	260	76.6%	117.6	34.6	F
	Through	219	213	97.4%	13.4	3.4	B
	Right Turn						
	Subtotal	558	473	84.7%	71.8	24.9	E
EB	Left Turn						
	Through	507	233	45.9%	336.9	117.1	F
	Right Turn	135	69	51.3%	339.6	112.1	F
	Subtotal	642	302	47.0%	337.6	114.8	F
WB	Left Turn	29	24	84.1%	10.5	7.8	B
	Through	422	360	85.2%	8.0	1.7	A
	Right Turn	160	128	80.3%	6.3	1.8	A
	Subtotal	611	512	83.9%	7.8	1.7	A
Total		2,039	1,535	75.3%	92.4	25.0	F

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	7	136.0%	6.4	7.6	A
	Through						
	Right Turn	205	202	98.5%	8.7	1.0	A
	Subtotal	210	209	99.4%	8.7	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	846	460	54.4%	109.7	12.5	F
	Right Turn	5	4	72.0%	63.3	77.4	E
	Subtotal	851	464	54.5%	109.8	12.4	F
WB	Left Turn	92	85	92.2%	32.1	6.7	C
	Through	606	513	84.7%	6.3	0.5	A
	Right Turn						
	Subtotal	698	598	85.7%	10.0	1.0	A
Total		1,759	1,270	72.2%	46.0	2.6	D

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	40	61.5%	237.4	64.5	F
	Through	221	135	61.0%	229.4	45.8	F
	Right Turn						
	Subtotal	286	175	61.1%	231.6	49.1	F
SB	Left Turn						
	Through	75	64	85.3%	28.1	6.8	C
	Right Turn	633	562	88.8%	20.3	2.6	C
	Subtotal	708	626	88.5%	21.1	3.0	C
EB	Left Turn	779	486	62.3%	38.5	4.1	D
	Through						
	Right Turn	272	170	62.4%	10.4	1.7	B
	Subtotal	1,051	655	62.3%	31.2	3.1	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,045	1,456	71.2%	50.9	5.7	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	228	245	107.4%	0.2	0.1	A
	Right Turn						
	Subtotal	228	245	107.4%	0.2	0.1	A
SB	Left Turn						
	Through	383	310	80.8%	1.7	0.3	A
	Right Turn						
	Subtotal	383	310	80.8%	1.7	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		611	554	90.7%	1.0	0.2	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	207	98.7%	0.2	0.1	A
	Subtotal	210	207	98.7%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	88	91.1%	0.9	0.2	A
	Subtotal	97	88	91.1%	0.9	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	296	96.3%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	228	245	107.4%	0.2	0.1	A
	Subtotal	228	245	107.4%	0.2	0.1	A
SB	Left Turn Through Right Turn	383	308	80.5%	0.4	0.1	A
	Subtotal	383	308	80.5%	0.4	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		611	553	90.5%	0.3	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	207	98.7%	0.1	0.0	A
	Subtotal	210	207	98.7%	0.1	0.0	A
SB	Left Turn Through Right Turn	97	88	90.7%	0.2	0.1	A
	Subtotal	97	88	90.7%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	295	96.2%	0.2	0.0	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	202	174	86.1%	12.7	1.8	B
	Right Turn	20	18	88.0%	7.6	2.6	A
	Subtotal	222	192	86.3%	12.3	1.8	B
SB	Left Turn	248	240	96.6%	13.5	1.7	B
	Through	98	101	103.3%	5.0	1.1	A
	Right Turn	1	2	200.0%	0.7	1.4	A
	Subtotal	347	343	98.8%	10.9	1.3	B
EB	Left Turn	40	35	87.0%	10.2	3.4	B
	Through	9	7	80.0%	9.6	4.8	A
	Right Turn	11	12	105.5%	3.2	1.1	A
	Subtotal	60	54	89.3%	8.8	2.2	A
WB	Left Turn	192	181	94.4%	14.1	1.8	B
	Through	3	4	120.0%	5.0	4.8	A
	Right Turn	44	48	109.1%	5.9	1.3	A
	Subtotal	239	233	97.4%	12.4	1.7	B
Total		868	821	94.6%	11.4	1.1	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	104.0%	4.8	3.0	A
	Through	243	244	100.4%	8.2	0.6	A
	Right Turn	68	65	95.3%	5.1	0.6	A
	Subtotal	316	314	99.4%	7.5	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	46	46	99.1%	8.8	1.9	A
	Through	299	288	96.5%	9.7	1.2	A
	Right Turn						
	Subtotal	345	334	96.8%	9.6	1.2	A
WB	Left Turn						
	Through	263	256	97.2%	7.2	0.9	A
	Right Turn	6	8	126.7%	5.8	4.1	A
	Subtotal	269	263	97.8%	7.2	0.9	A
Total		930	911	98.0%	8.2	0.7	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	5	5	96.0%	6.5	10.3	A
	Right Turn						
	Subtotal	5	5	96.0%	6.5	10.3	A
SB	Left Turn						
	Through	305	304	99.7%	18.8	2.7	B
	Right Turn	43	45	105.1%	13.3	3.6	B
	Subtotal	348	349	100.3%	18.0	2.6	B
EB	Left Turn	222	158	71.4%	29.2	5.9	C
	Through						
	Right Turn	10	10	96.0%	7.5	4.3	A
	Subtotal	232	168	72.4%	27.9	5.8	C
WB	Left Turn	175	162	92.3%	7.3	2.6	A
	Through	296	285	96.4%	11.6	1.3	B
	Right Turn	239	223	93.2%	5.6	0.9	A
	Subtotal	710	670	94.3%	8.5	0.7	A
Total		1,295	1,192	92.0%	14.0	0.8	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	9	80.0%	29.9	22.1	C
	Through	491	380	77.3%	6.2	1.7	A
	Right Turn	268	196	73.1%	5.3	1.1	A
	Subtotal	770	584	75.9%	6.2	1.4	A
SB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	487	179	36.7%	170.7	40.3	F
	Right Turn	5	1	16.0%	52.0	83.5	D
	Subtotal	493	180	36.4%	170.7	40.4	F
EB	Left Turn	5	2	48.0%	16.1	20.8	B
	Through	35	30	85.7%	33.2	9.7	C
	Right Turn	5	6	112.0%	9.1	14.7	A
	Subtotal	45	38	84.4%	30.5	10.1	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,308	802	61.3%	42.6	2.6	D

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	158	104	65.6%	18.7	2.7	B
	Right Turn	5	5	96.0%	1.0	1.1	A
	Subtotal	163	108	66.5%	17.9	2.6	B
SB	Left Turn	10	7	72.0%	15.4	11.4	B
	Through	382	355	92.9%	21.9	11.2	C
	Right Turn						
	Subtotal	392	362	92.3%	21.8	11.2	C
EB	Left Turn	5	4	80.0%	6.9	9.9	A
	Through	279	204	73.1%	8.9	3.1	A
	Right Turn	20	16	82.0%	13.7	15.6	B
	Subtotal	304	224	73.8%	9.4	3.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		859	695	80.9%	17.3	6.6	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	168	164	97.4%	10.5	1.3	B
	Through	520	512	98.4%	9.1	1.4	A
	Right Turn						
	Subtotal	688	675	98.1%	9.4	1.3	A
EB	Left Turn	5	5	96.0%	6.4	6.8	A
	Through	263	192	73.2%	8.9	1.2	A
	Right Turn	26	24	92.3%	4.9	2.8	A
	Subtotal	294	221	75.2%	8.6	1.1	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		982	896	91.3%	9.2	1.1	A

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	413	414	100.3%	8.0	1.3	A
	Right Turn	50	51	102.4%	3.5	1.6	A
	Subtotal	463	466	100.6%	7.5	1.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	170	131	77.2%	7.1	1.1	A
	Through	308	270	87.7%	9.2	1.1	A
	Right Turn						
	Subtotal	478	401	83.9%	8.5	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		941	867	92.1%	8.0	0.7	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	157	104	66.2%	192.7	25.1	F
	Through						
	Right Turn	688	459	66.7%	186.4	23.7	F
	Subtotal	845	563	66.7%	187.8	23.7	F
EB	Left Turn	661	574	86.8%	79.5	27.2	E
	Through	125	101	81.0%	74.1	24.8	E
	Right Turn						
	Subtotal	786	675	85.9%	78.8	26.8	E
WB	Left Turn						
	Through	142	111	78.3%	41.5	10.1	D
	Right Turn	31	23	74.8%	10.7	12.2	B
	Subtotal	173	134	77.7%	35.9	9.4	D
Total		1,804	1,372	76.1%	119.5	13.0	F

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	222	146	65.6%	149.9	61.6	F
	Through	686	526	76.6%	69.8	9.4	E
	Right Turn						
	Subtotal	908	671	73.9%	85.1	10.2	F
SB	Left Turn						
	Through						
	Right Turn	527	185	35.1%	212.5	53.2	F
	Subtotal	527	185	35.1%	212.5	53.2	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,517	2,245	89.2%	18.3	3.2	B
	Right Turn	46	46	100.0%	6.0	2.7	A
	Subtotal	2,563	2,291	89.4%	18.1	3.2	B
Total		3,998	3,148	78.7%	43.4	2.5	D

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	249	156	62.8%	105.1	18.4	F
	Through	128	77	60.0%	109.3	23.6	F
	Right Turn						
	Subtotal	377	233	61.9%	106.8	19.1	F
SB	Left Turn						
	Through	46	42	91.3%	69.4	20.5	E
	Right Turn	356	306	85.8%	54.4	20.4	D
	Subtotal	402	348	86.5%	56.3	20.0	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	17	93.3%	28.4	8.4	C
	Through	1,958	1,869	95.4%	27.8	4.9	C
	Right Turn	35	32	91.4%	15.2	3.8	B
	Subtotal	2,011	1,918	95.4%	27.6	4.8	C
Total		2,790	2,498	89.5%	38.8	5.5	D

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	326	318	97.5%	28.8	2.8	C
	Right Turn	220	219	99.6%	13.6	2.5	B
	Subtotal	546	537	98.4%	22.7	1.9	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	50	58	115.2%	7.8	5.7	A
	Through	1,791	1,724	96.3%	10.5	4.7	B
	Right Turn						
	Subtotal	1,841	1,782	96.8%	10.5	4.7	B
Total		2,387	2,319	97.2%	13.3	3.6	B

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	381	351	92.2%	63.2	15.6	E
	Through	446	449	100.7%	45.6	6.9	D
	Right Turn						
	Subtotal	827	800	96.8%	53.4	10.4	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,460	1,452	99.5%	13.1	4.3	B
	Right Turn	17	18	105.9%	6.2	4.6	A
	Subtotal	1,477	1,470	99.5%	13.0	4.3	B
Total		2,304	2,270	98.5%	27.3	3.8	C

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	25	29	115.2%	40.2	10.2	D
	Through	440	418	95.0%	36.4	2.3	D
	Right Turn	26	26	100.0%	13.0	6.9	B
	Subtotal	491	473	96.3%	35.4	2.0	D
SB	Left Turn	222	216	97.3%	46.8	7.6	D
	Through	326	338	103.8%	55.4	10.0	E
	Right Turn						
	Subtotal	548	554	101.2%	52.1	8.6	D
EB	Left Turn	6	5	86.7%	24.5	21.7	C
	Through	649	587	90.5%	33.8	2.3	C
	Right Turn	383	364	94.9%	43.4	4.0	D
	Subtotal	1,038	956	92.1%	37.5	2.8	D
NB	Left Turn						
	Through						
	Right Turn	146	144	98.4%	5.1	1.3	A
	Subtotal	146	144	98.4%	5.1	1.3	A
Total		2,223	2,127	95.7%	38.6	2.5	D

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	301	272	90.4%	42.3	33.6	D
	Right Turn	133	114	85.4%	33.1	26.8	C
	Subtotal	434	386	88.8%	39.8	31.4	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	607	465	76.6%	57.8	20.5	E
	Through	904	857	94.8%	16.4	4.0	B
	Right Turn	71	72	101.4%	12.6	3.2	B
	Subtotal	1,582	1,394	88.1%	29.8	9.1	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,016	1,780	88.3%	31.9	11.7	C

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	65	72	110.2%	5.6	1.2	A
	Through	311	303	97.5%	4.7	0.5	A
	Right Turn						
	Subtotal	376	375	99.7%	4.9	0.7	A
EB	Left Turn						
	Through	893	828	92.7%	13.6	0.8	B
	Right Turn	151	148	98.0%	9.0	0.6	A
	Subtotal	1,044	976	93.5%	12.9	0.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,420	1,351	95.1%	10.6	0.6	B

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	111	95.9%	38.7	4.2	D
	Through	135	137	101.6%	20.3	4.3	C
	Right Turn	217	217	99.9%	6.8	2.7	A
	Subtotal	468	465	99.4%	18.4	3.0	B
SB	Left Turn	62	64	103.2%	39.9	5.4	D
	Through	83	94	112.8%	23.0	4.6	C
	Right Turn	14	16	111.4%	5.1	4.0	A
	Subtotal	159	173	108.9%	27.8	4.0	C
EB	Left Turn	27	23	84.4%	46.9	13.5	D
	Through	303	301	99.4%	23.8	2.8	C
	Right Turn	74	78	105.4%	9.7	3.7	A
	Subtotal	404	402	99.5%	22.3	2.7	C
WB	Left Turn	283	215	75.9%	37.5	4.1	D
	Through	432	306	70.8%	19.9	5.5	B
	Right Turn	94	77	81.7%	5.6	0.9	A
	Subtotal	809	598	73.9%	24.3	3.4	C
Total		1,840	1,638	89.0%	22.5	2.3	C

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	27	104.6%	17.8	5.6	B
	Through	10	12	120.0%	21.6	9.7	C
	Right Turn	218	214	98.2%	9.1	1.9	A
	Subtotal	254	253	99.7%	10.6	1.9	B
SB	Left Turn	7	8	114.3%	32.9	14.2	C
	Through	3	4	133.3%	6.1	13.3	A
	Right Turn	1	2	160.0%	2.4	4.2	A
	Subtotal	11	14	123.6%	23.8	10.4	C
EB	Left Turn	3	2	66.7%	15.4	20.3	B
	Through	561	554	98.8%	10.1	2.1	B
	Right Turn	18	20	113.3%	5.7	2.1	A
	Subtotal	582	577	99.1%	10.0	2.0	B
WB	Left Turn	33	26	80.0%	33.8	9.7	C
	Through	782	583	74.6%	9.2	1.0	A
	Right Turn	15	13	85.3%	7.9	2.7	A
	Subtotal	830	622	75.0%	10.1	1.2	B
Total		1,677	1,466	87.4%	10.3	1.3	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	223	174	78.2%	20.4	3.5	C
	Right Turn	273	213	78.1%	14.1	2.8	B
	Subtotal	496	388	78.1%	16.9	2.6	B
SB	Left Turn	11	4	40.0%	243.1	178.9	F
	Through	372	130	34.8%	251.7	75.0	F
	Right Turn						
	Subtotal	383	134	35.0%	249.6	75.5	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	121	72	59.8%	149.1	68.6	F
	Through						
	Right Turn	5	3	64.0%	55.0	91.6	E
	Subtotal	126	76	60.0%	146.0	69.0	F
Total		1,005	597	59.4%	79.1	15.0	E

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	1	16.0%	0.3	0.7	A
	Through	100	67	67.2%	2.0	0.6	A
	Right Turn	58	40	68.3%	0.8	0.4	A
	Subtotal	163	108	66.0%	1.6	0.5	A
SB	Left Turn	5	3	56.0%	9.4	12.8	A
	Through	21	21	99.0%	25.6	21.0	C
	Right Turn	71	64	89.6%	25.8	23.9	C
	Subtotal	97	87	89.9%	25.7	22.8	C
EB	Left Turn	105	80	75.8%	8.9	2.2	A
	Through	169	127	75.3%	5.3	1.4	A
	Right Turn	10	6	64.0%	1.1	1.4	A
	Subtotal	284	213	75.1%	6.6	0.9	A
WB	Left Turn	284	271	95.5%	18.4	2.9	B
	Through	50	45	90.4%	39.9	33.7	D
	Right Turn	5	4	88.0%	8.7	13.1	A
	Subtotal	339	321	94.6%	20.6	4.3	C
Total		883	729	82.5%	14.3	4.1	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	70.4%	7.3	14.1	A
	Through	173	153	88.5%	37.4	4.7	D
	Right Turn	71	57	80.8%	6.0	1.8	A
	Subtotal	246	212	86.1%	28.8	4.0	C
SB	Left Turn	76	55	72.3%	8.6	8.0	A
	Through	202	104	51.4%	31.3	5.8	C
	Right Turn	115	60	52.0%	10.8	5.5	B
	Subtotal	393	219	55.6%	19.8	3.5	B
EB	Left Turn	75	69	92.5%	58.6	10.9	E
	Through	457	409	89.6%	36.6	5.7	D
	Right Turn	5	3	63.4%	14.9	17.8	B
	Subtotal	537	482	89.7%	39.6	5.5	D
WB	Left Turn	163	135	82.9%	61.9	11.0	E
	Through	672	597	88.8%	51.1	10.2	D
	Right Turn	125	112	89.8%	30.7	12.6	C
	Subtotal	960	844	87.9%	50.0	9.3	D
Total		2,136	1,756	82.2%	41.0	5.2	D

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	4	3	79.2%	23.4	26.7	C
	Right Turn	25	23	92.9%	5.3	1.6	A
	Subtotal	30	26	88.0%	9.3	5.3	A
SB	Left Turn	248	207	83.3%	24.3	5.2	C
	Through	124	107	86.6%	21.2	6.2	C
	Right Turn	134	112	83.3%	11.0	3.6	B
	Subtotal	506	426	84.1%	20.0	4.6	B
EB	Left Turn	26	25	97.5%	51.2	18.4	D
	Through	573	485	84.6%	23.7	6.6	C
	Right Turn	5	5	91.5%	15.9	20.1	B
	Subtotal	604	515	85.2%	24.9	5.9	C
WB	Left Turn	121	108	89.3%	35.2	6.5	D
	Through	825	729	88.4%	19.1	2.9	B
	Right Turn	78	67	86.2%	17.2	6.8	B
	Subtotal	1,024	905	88.3%	20.9	3.3	C
Total		2,164	1,871	86.5%	21.6	3.8	C

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	272	278	102.2%	9.8	1.4	A
	Through	1,555	1,537	98.8%	8.5	0.7	A
	Right Turn	5	4	88.0%	3.2	3.7	A
	Subtotal	1,832	1,819	99.3%	8.7	0.6	A
EB	Left Turn						
	Through	314	312	99.2%	16.9	2.1	B
	Right Turn	12	12	100.0%	8.4	5.5	A
	Subtotal	326	324	99.3%	16.6	2.1	B
WB	Left Turn	26	26	100.0%	23.3	9.4	C
	Through	58	49	84.8%	13.4	3.5	B
	Right Turn						
	Subtotal	84	75	89.5%	16.9	5.4	B
Total		2,242	2,218	98.9%	10.1	0.6	B

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	218	225	103.1%	13.9	1.9	B
	Through	1,272	1,248	98.1%	13.7	1.1	B
	Right Turn	103	98	94.8%	9.4	2.1	A
	Subtotal	1,593	1,570	98.6%	13.5	1.0	B
EB	Left Turn						
	Through	356	353	99.2%	20.7	3.5	C
	Right Turn	95	89	93.5%	16.9	4.2	B
	Subtotal	451	442	98.0%	19.9	3.5	B
WB	Left Turn	6	2	40.0%	17.8	33.6	B
	Through	66	62	93.9%	13.7	5.1	B
	Right Turn						
	Subtotal	72	64	89.4%	14.3	4.7	B
Total		2,116	2,077	98.1%	14.9	0.8	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	500	159	750	207	800	249	67%	0%
	Through/Right	2,725	200	82	425	228	475	223	0%	0%
SB	Left Turn	325	150	25	250	31	250	51	0%	0%
	Left/Through	1,500	225	26	325	84	325	121	1%	0%
	Right Turn	325	75	19	150	53	150	74	0%	0%
WB	Left Turn	1,275	125	18	200	31	200	39	0%	0%
	Through	275	100	20	175	21	175	28	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	250	21	325	10	300	7	0%	4%
	Through	325	25	6	50	24	50	31	0%	0%
NB	Left/Through	325	50	11	100	18	75	16	0%	0%
	Right Turn	1,175	75	11	125	28	125	35	0%	0%
WB	Through	225	150	28	225	35	225	34	0%	1%
	Right Turn	225	25	16	75	82	100	114	0%	0%
0										

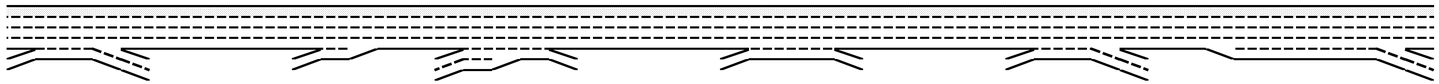
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	150	15	225	34	225	43	0%	0%
	Through	600	150	23	225	45	250	58	0%	0%
	Through/Right	600	275	27	400	32	400	41	0%	0%
NB	Right Turn	1,025	25	4	25	13	25	14	0%	0%
NE	Shared	975	200	38	300	46	300	35	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	50	10	75	31	100	42	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

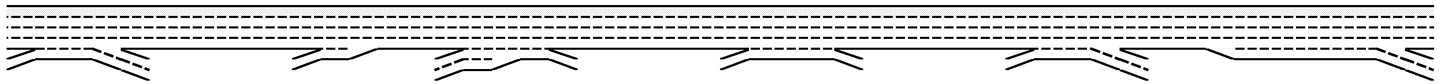
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	6,132	6,711	6,711	7,678	8,216	8,216	9,201	9,201	8,850	8,850
On Ramp Volume	1,070		967	1,037		1,835		750		
Off Ramp Volume	491			499		850		1,101		2,168
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	6,132	6,711	6,711	7,678	8,216	8,216	9,201	9,201	8,850	8,850
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	7,303	7,992	7,992	9,144	9,785	9,785	10,958	10,958	10,540	10,540
Flow (pcphpl)	1,826	1,998	1,998	2,286	2,446	2,446	2,739	2,739	2,635	2,108
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.78	0.85	0.85	0.97	1.04	1.04	1.17	1.17	1.12	0.90
Speed (mph)	62.4	59.9	59.9	53.9	-	-	-	-	-	57.9
Density (pcphpl)	29.2	33.3	33.3	42.4	-	-	-	-	-	36.4
LOS	D	D	D	E	F	F	F	F	F	E
Calculate Operations for Segment GP Lanes										
Flow (pcph)	8,566		9,015	10,313		11,745		11,833		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.73		0.96	0.88		1.00		1.01		
Flow Rate (pcphpl)	1,713		2,254	2,063		2,349		2,367		
Speed (mph)	63.6		54.7	58.8		52.2		-		
Density (pcphpl)	26.9		41.2	35.1		45.0		-		
LOS	D		E	E		E		F		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

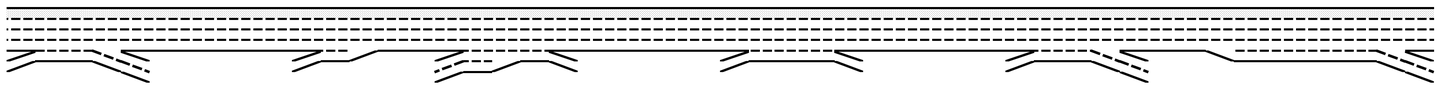
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	8,046			9,724		10,827		10,631		8,168
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.86			1.03		1.15		1.13		0.87
Flow Rate (pcphpl)	2,012			2,431		2,707		2,658		2,042
Speed (mph)	59.7			-		-		-		59.2
Density (pcphpl)	33.7			-		-		-		34.5
LOS	D			F		F		F		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

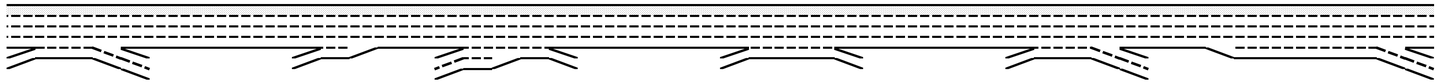
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	1,070		967	1,037		1,835		750		
PHF	0.86		0.96	0.9		0.95		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	1,263		1,022	1,170		1,961		875		
Flow Rate (pcphpl)	1,263		1,022	585		1,961		875		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.60		0.49	0.28		0.93		0.42		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

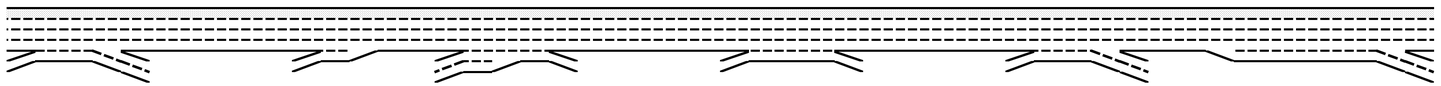
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	491			499		850		1,101		2,168
PHF	0.96			0.86		0.94		0.93		0.96
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	519			589		918		1,202		2,371
Flow Rate (pcphpl)	260			589		918		601		1,186
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.12			0.28		0.44		0.29		0.52
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			7,992							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.090							
v_{12} (pcph)			719							
v_3 (pcph)										
v_{34} (pcph)			7,273							
v_{12a} (pcph)			3,197							
v_{R12a} (pcph)			4,219							
Speed Index			0.55							
Area Speed			52.4							
Outer Lanes Volume			2,398							
Outer Lanes Speed			57.9							
Segment Speed			55.2							
v/c ratio			0.92							
Density			35.3							
LOS			E							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



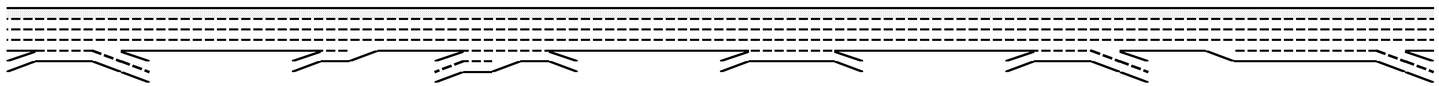
Key
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										36.9
LOS										E
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)						1,020				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)						1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)						815				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)						871				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

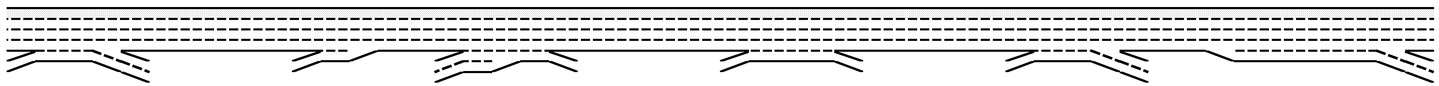
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)						-170				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)						-184				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)						8,386				
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)						9,092				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

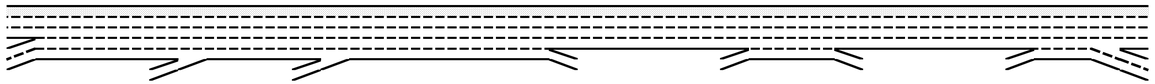
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type						One-sided				
Length						900				
Segment Lanes						6				
Weave Lanes						3				
Weave Flow (pcph)						686				
Non-Weave Flow						10,182				
Segment Flow						10,868				
Max Weave Length						1,620				
Length Check						OK				
Ideal Weave Capacity						2,295				
f_{HV}						0.973				
f_P						0.999				
Capacity Condition 1						13,388				
Capacity Condition 2						53,881				
v/c ratio						0.79				
Interchange Density						1				
Lane Changes On to ML						2				
Lane Changes ML to Off						0				
Lane Changes On to Off						0				
Min Lane Change Rate						1,742				
Weave LC Rate						1,669				
Non-Weave LC Rate 1						1,430				
Non-Weave LC Rate 2						3,960				
Non-Weave LC Rate 3						-63				
Segment LC Rate						3,099				
Weave Intensity Factor						0.599				
Weave Speed						46.3				
Non-Weave Speed						43.8				
Segment Speed						43.9				
Density						-				
LOS						F				
Summarize Segment Operations										
Segment v/c ratio		0.85	0.92		1.04	0.79	1.17		1.12	
Segment Density		33.3	35.3	-	-	-	-	-	-	36.9
Segment LOS		D	E	F	F	F	F	F	F	E
Over Capacity				Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Exiting GP Lanes	Entering GP Lanes	Entering GP Lanes Segment GP Lanes Exiting GP Lanes	Entering GP Lanes	
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8

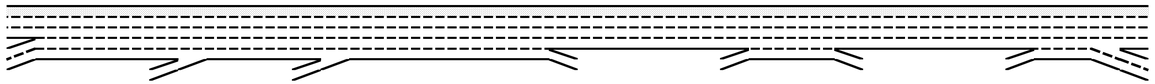


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	3,494	5,771	6,228	6,872	6,358	6,358	6,340	6,340
On Ramp Volume	2,277	457	644			871		787
Off Ramp Volume				514		889		756
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	3,494	5,771	6,228	6,872	6,358	6,358	6,340	6,340
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,814	6,300	6,799	7,502	6,941	6,941	6,921	6,921
Flow (pcphpl)	1,271	1,260	1,360	1,500	1,735	1,735	1,730	1,730
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.54	0.54	0.58	0.64	0.74	0.74	0.74	0.74
Speed (mph)	65.0	65.0	65.0	64.9	63.4	63.4	63.5	63.5
Density (pcphpl)	19.6	19.4	20.9	23.1	27.4	27.4	27.3	27.3
LOS	C	C	C	C	D	D	D	D
Calculate Operations for Segment GP Lanes								
Flow (pcph)	6,385	6,852	7,533			7,923		7,745
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.54	0.58	0.64			0.67		0.66
Flow Rate (pcphpl)	1,277	1,370	1,507			1,585		1,549
Speed (mph)	65.0	65.0	64.8			64.5		64.7
Density (pcphpl)	19.6	21.1	23.2			24.6		23.9
LOS	C	C	C			C		C

Location	1	2	3	4	5	6	7	8



Key

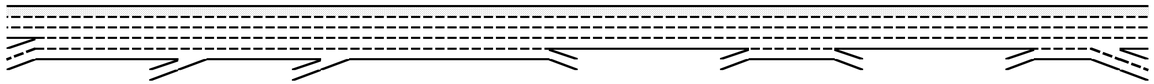
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				6,947		6,862		6,945
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.74		0.73		0.74
Flow Rate (pcphpl)				1,737		1,715		1,736
Speed (mph)				63.4		63.6		63.4
Density (pcphpl)				27.4		27.0		27.4
LOS				D		D		D

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

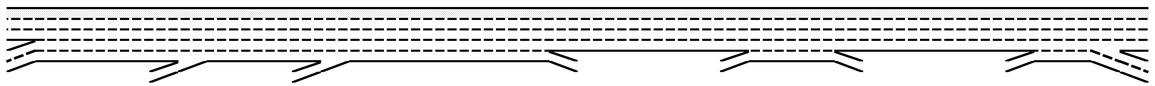
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	2,277	457	644			871		787
PHF	0.93	0.84	0.89			0.9		0.97
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	2,571	552	734			982		824
Flow Rate (pcphpl)	1,285	552	734			982		824
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.56	0.26	0.35			0.47		0.39

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

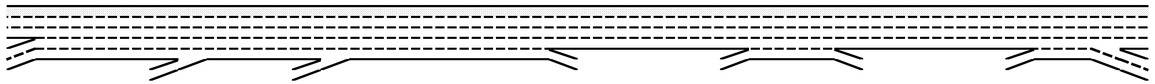
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				514		889		756
PHF				0.94		0.85		0.96
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				555		1,062		799
Flow Rate (pcphpl)				555		1,062		400
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.26		0.51		0.19
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		4,788	4,963					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.149	0.126					
v_{12} (pcph)		712	625					
v_3 (pcph)								
v_{34} (pcph)		4,076	4,338					
v_{12a} (pcph)		1,915	1,985					
v_{R12a} (pcph)		2,467	2,720					
Speed Index		0.36	0.36					
Area Speed		56.8	56.8					
Outer Lanes Volume		1,436	1,489					
Outer Lanes Speed		61.6	61.4					
Segment Speed		59.3	59.1					
v/c ratio		0.54	0.59					
Density		23.8	24.6					
LOS		C	C					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

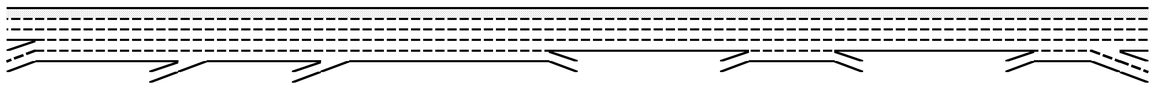
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				6,002				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.584				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,930				
v_3 (pcph)								
v_{34} (pcph)				3,072				
v_{12a} (pcph)				2,930				
Speed Index				0.35				
Area Speed				57.0				
Outer Lanes Volume				1,536				
Outer Lanes Speed				69.2				
Segment Speed				62.7				
v/c ratio				0.67				
Density				22.7				
LOS				C				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

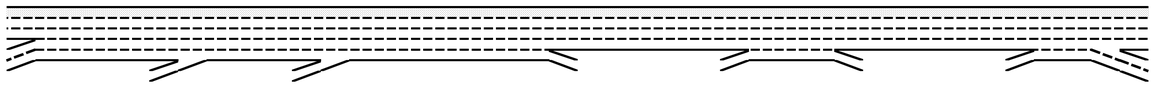
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8



Key

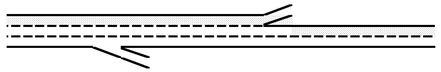
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.54	0.54	0.59	0.67	0.74		0.74	
Segment Density	19.6	23.8	24.6	22.7	27.4		27.3	
Segment LOS	C	C	C	C	D		D	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3

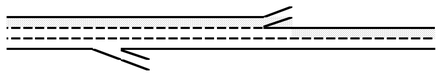


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	5,021	4,489	4,058
On Ramp Volume			
Off Ramp Volume	532	431	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	5,021	4,489	4,058
PHF	0.94	0.94	0.94
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	5,422	4,847	4,382
Flow (pcphpl)	1,807	1,616	2,191
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.77	0.67	0.91
Speed (mph)	62.6	68.0	58.6
Density (pcphpl)	28.8	23.8	37.4
LOS	D	C	E
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

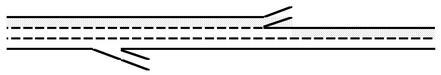


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	4,847	4,382	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.69	0.91	
Flow Rate (pcphpl)	1,616	2,191	
Speed (mph)	64.3	58.6	
Density (pcphpl)	25.1	37.4	
LOS	C	E	

Location	1	2	3

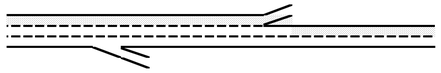


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

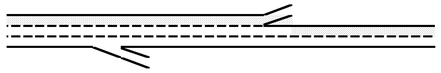


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	532	431	
PHF	0.94	0.94	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	574	465	
Flow Rate (pcphpl)	574	465	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.27	0.23	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		574	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

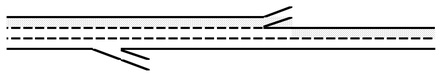


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	5,422		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.598		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.598		
v_{12} (pcph)	3,473		
v_3 (pcph)	1,948		
v_{34} (pcph)			
v_{12a} (pcph)	3,473		
Speed Index	0.35		
Area Speed	57.0		
Outer Lanes Volume	1,948		
Outer Lanes Speed	67.6		
Segment Speed	60.4		
v/c ratio	0.79		
Density	32.8		
LOS	D		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

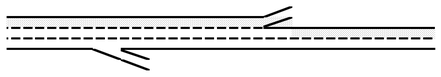


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

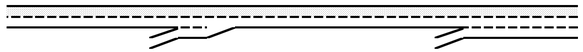
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.79	0.67	0.91
Segment Density	32.8	23.8	37.4
Segment LOS	D	C	E
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4



Key

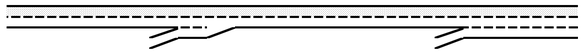
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,266	2,266	2,468	2,468
On Ramp Volume		202		341
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,266	2,266	2,468	2,468
PHF	0.97	0.97	0.97	0.97
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,371	2,371	2,582	2,582
Flow (pcphpl)	1,186	1,186	1,291	861
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.53	0.50	0.55	0.37
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	21.6	18.2	19.9	13.2
LOS	C	C	C	B
Operations for Segment GP Lanes				
Flow (pcph)		2,582		2,939
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.55		0.42
Flow Rate (pcphpl)		1,291		980
Speed (mph)		65.0		65.0
Density (pcphpl)		19.9		15.1
LOS		C		B

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

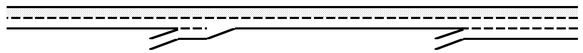


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

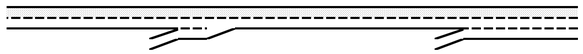


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		202		341
PHF		0.97		0.97
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		211		357
Flow Rate (pcphpl)		211		357
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.10		0.17

Location	1	2	3	4



Key

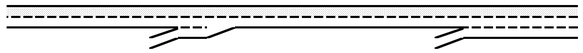
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,371		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,371		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,371		
v_{R12a} (pcph)		2,582		
Speed Index		0.30		
Area Speed		58.0		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.0		
v/c ratio		0.56		
Density		20.8		
LOS		C		

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus Medical Center Conditions
Time Period: PM Peak Hour

Location	1	2	3	4

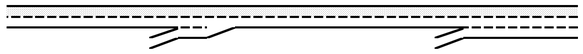


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4



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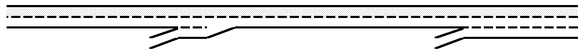
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

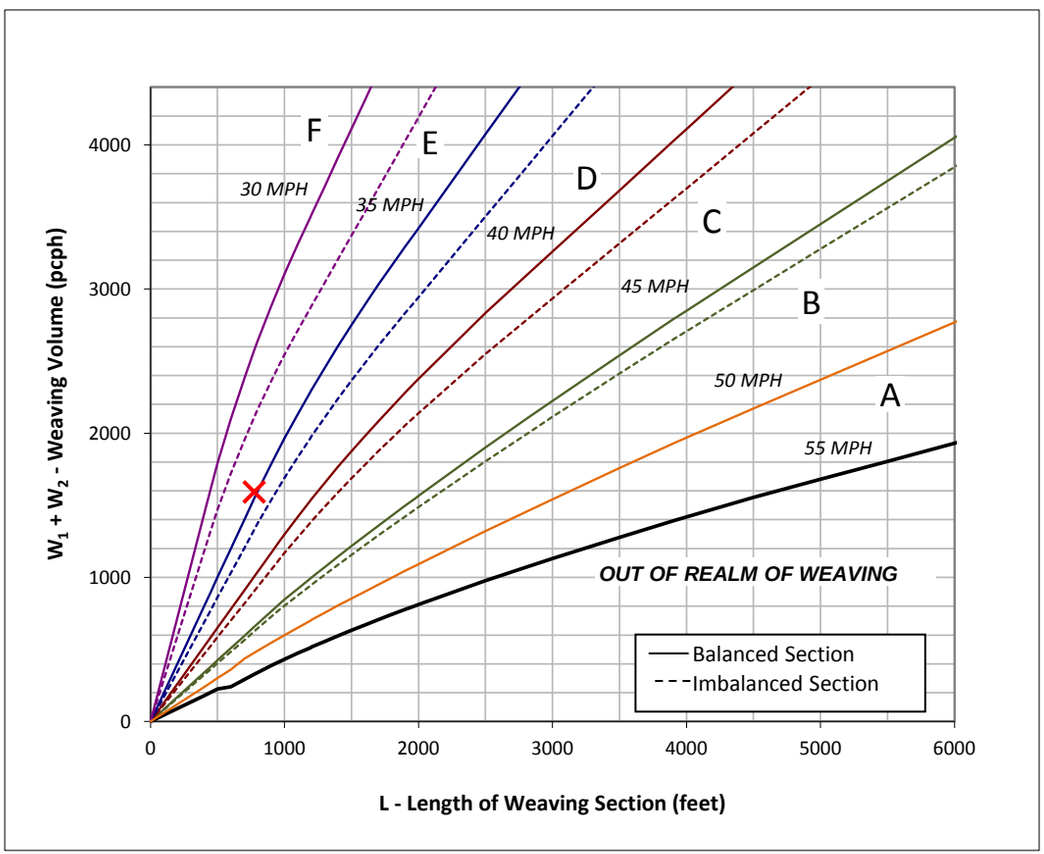
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.53	0.56	0.55	0.42
Segment Density	21.6	20.8	19.9	15.1
Segment LOS	C	C	C	B
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,872	Volume (vph)*	1,070	Volume (vph)*	491
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,202	Volume (pcph)	1,091	Volume (pcph)	501



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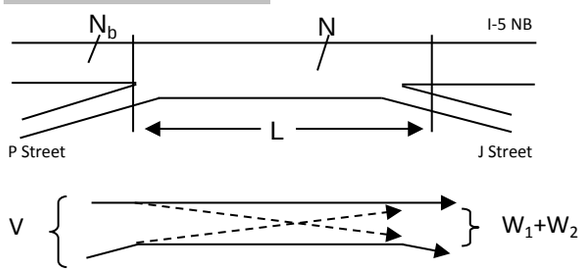


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	34.6
4. Weaving Intensity Factor (k)	2.81
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,622
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

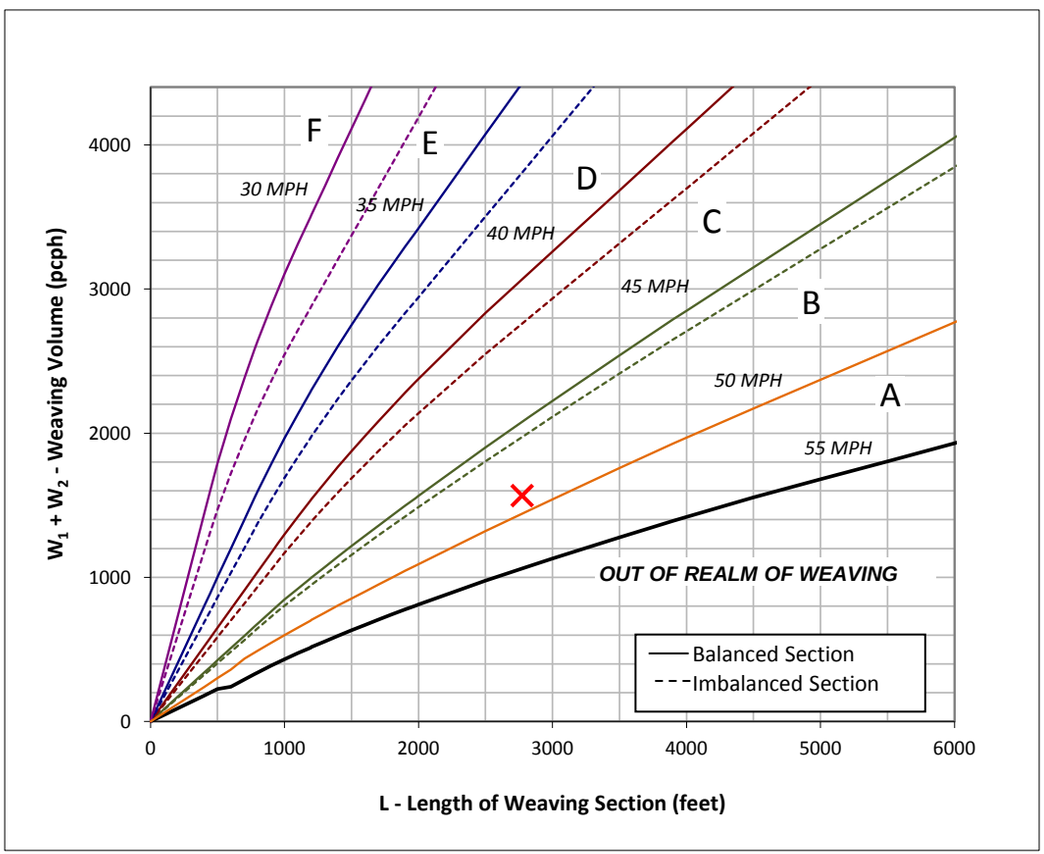
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,461	Volume (vph)*	1,037	Volume (vph)*	499
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,867	Volume (pcph)	1,058	Volume (pcph)	509



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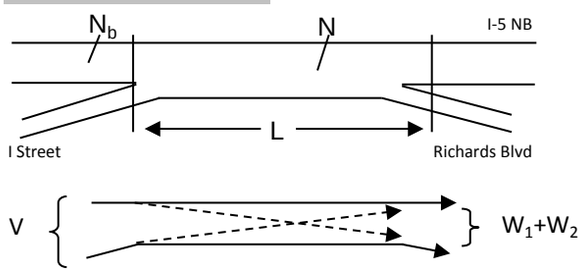


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **48.8**
4. Weaving Intensity Factor (k) **1.12**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,786**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

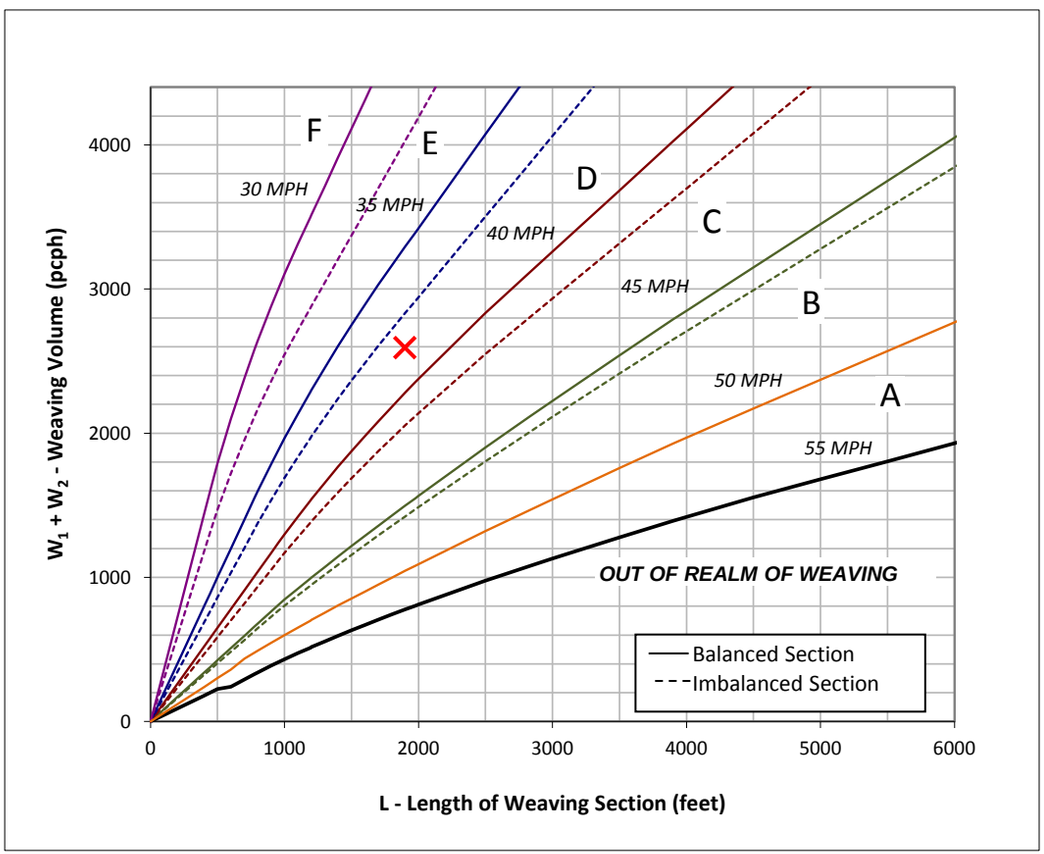
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,797	Volume (vph)*	1,743	Volume (vph)*	799
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,267	Volume (pcph)	1,778	Volume (pcph)	815



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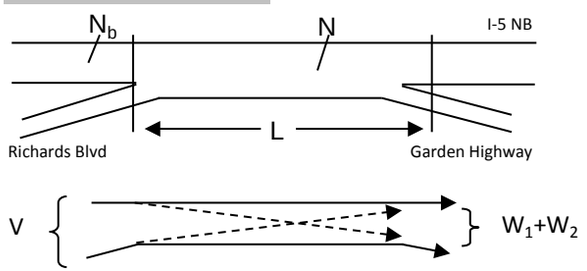


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	36.5
4. Weaving Intensity Factor (k)	2.72
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,334
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

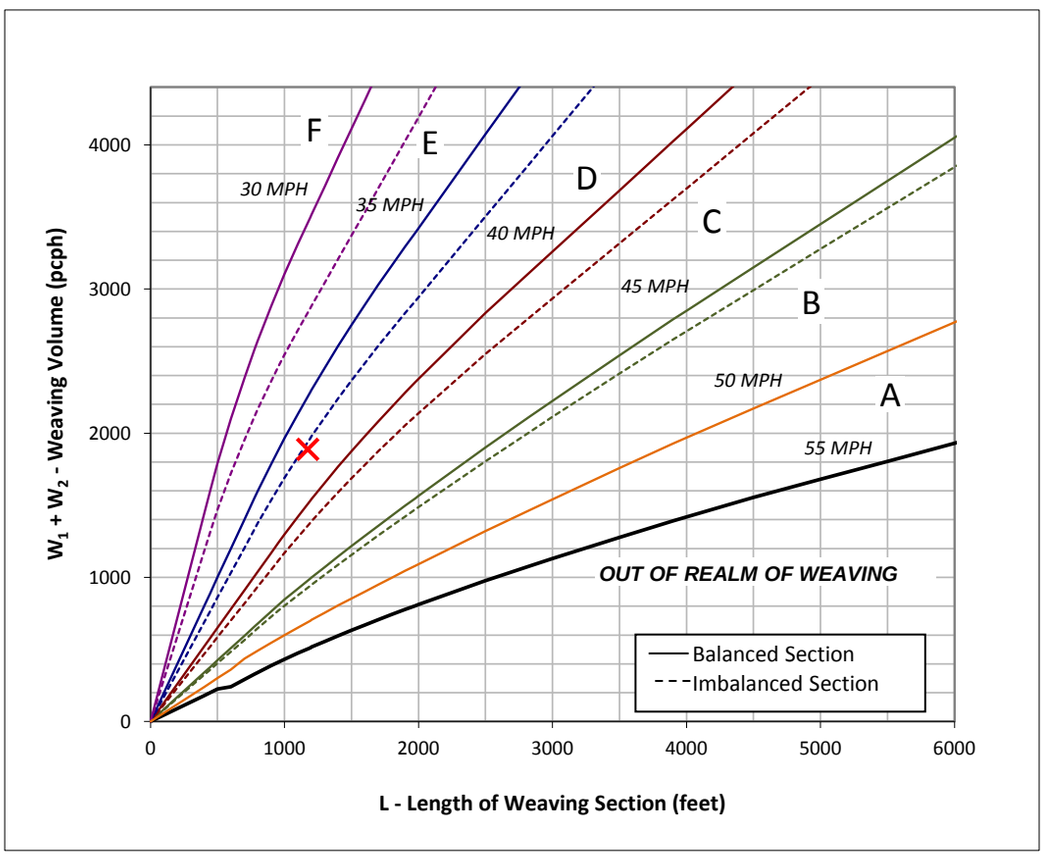
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,697	Volume (vph)*	750	Volume (vph)*	1,101
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,162	Volume (pcph)	765	Volume (pcph)	1,123



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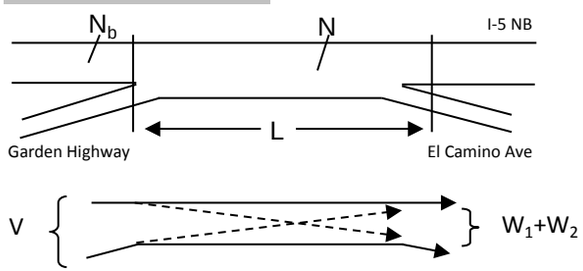


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.5
4. Weaving Intensity Factor (k)	2.67
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	2,288
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

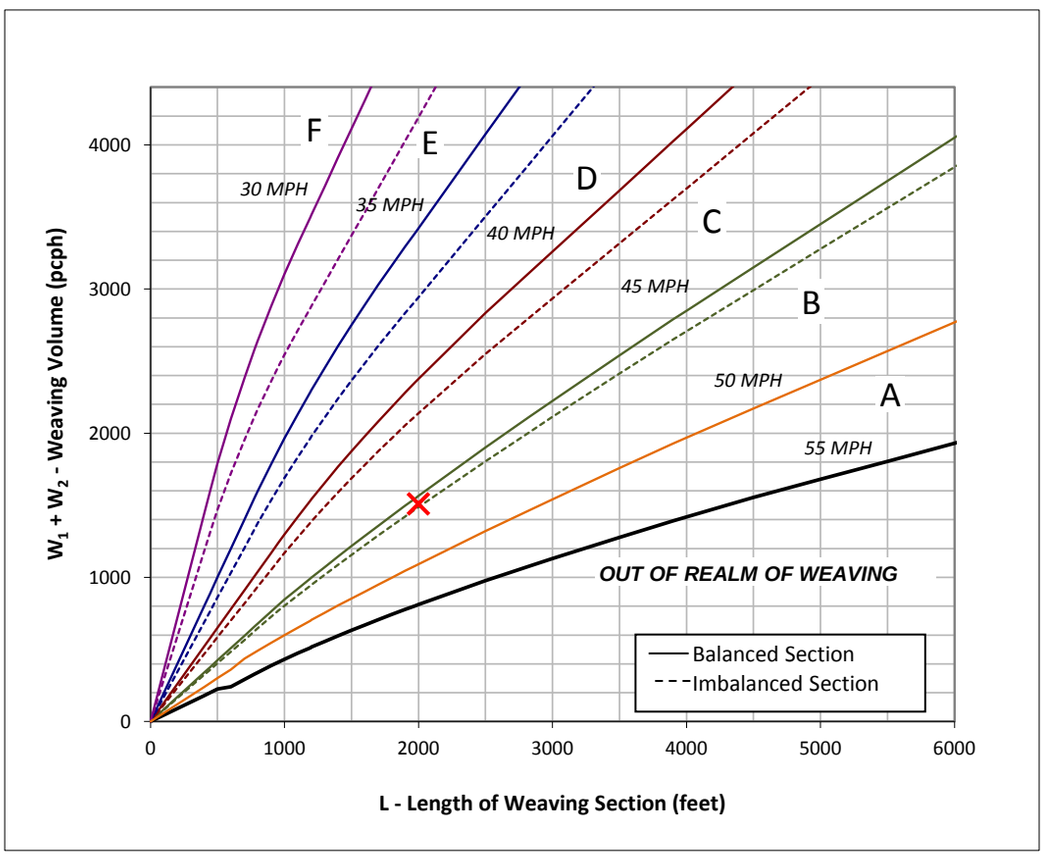
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,229	Volume (vph)*	767	Volume (vph)*	713
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,576	Volume (pcph)	782	Volume (pcph)	727



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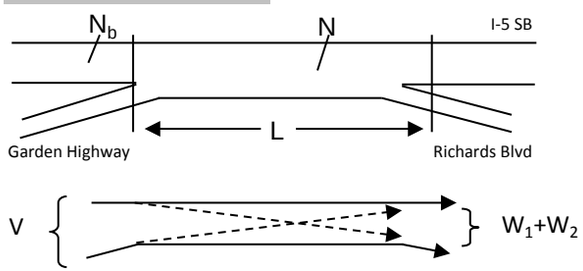


Capacity Analysis

1. Is the weaving section balanced (Y / N)?	N
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	44.7
4. Weaving Intensity Factor (k)	1.90
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,646
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

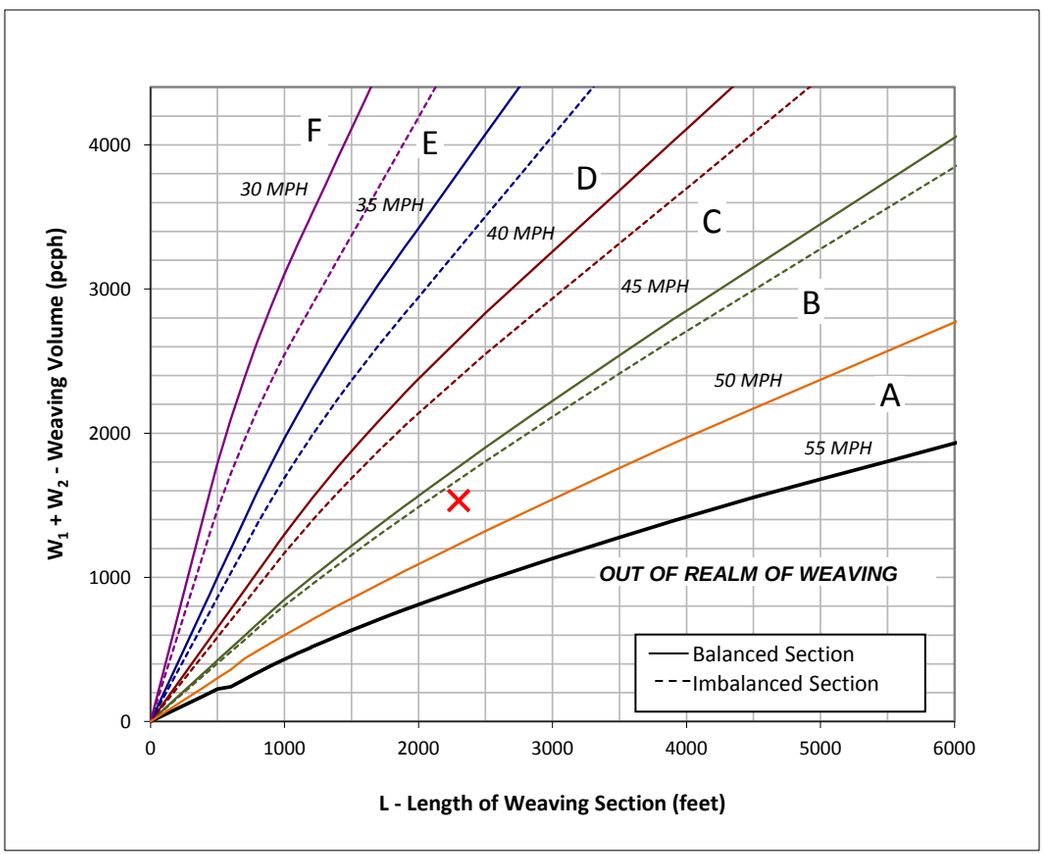
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,127	Volume (vph)*	763	Volume (vph)*	739
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,469	Volume (pcph)	778	Volume (pcph)	754



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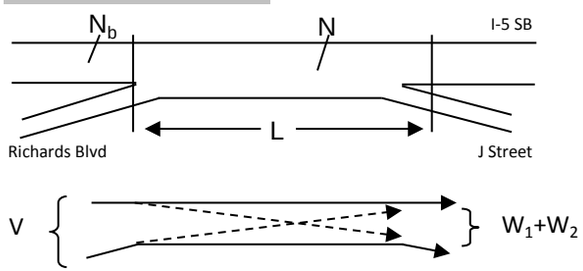


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	47.2
4. Weaving Intensity Factor (k)	1.38
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,551
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Daily VMT - Kaiser Railyards Trips
Base Year Plus Medical Center

Daily VMT for Kaiser Railyards			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	81
2	>5	<=10	527
3	>10	<=15	1,235
4	>15	<=20	30,750
5	>20	<=25	21,141
6	>25	<=30	13,205
7	>30	<=35	21,572
8	>35	<=40	31,106
9	>40	<=45	39,111
10	>45	<=50	34,052
11	>50	<=55	44,466
12	>55	<=60	72,400
13	>60	<=65	26,124
14	>65	<=70	2,510
15	>70	<=75	0
16	>75		0
		Total Kaiser Railyards VMT	**338,280**
		Total Kaiser Railyards External Vehicle Trips	26,245
		Average Kaiser Railyards VMT Per Trip	12.9

Note:

Trips include employees and patients

Daily VMT - Kaiser Morse Trips
Base Year No Project

Daily VMT for Kaiser Morse			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	21
2	>5	<=10	368
3	>10	<=15	1,146
4	>15	<=20	11,478
5	>20	<=25	5,357
6	>25	<=30	9,137
7	>30	<=35	20,978
8	>35	<=40	24,376
9	>40	<=45	13,557
10	>45	<=50	6,498
11	>50	<=55	9,312
12	>55	<=60	20,484
13	>60	<=65	8,966
14	>65	<=70	758
15	>70	<=75	0
16	>75		0
		Total Kaiser Morse VMT	**132,436**
		Total Kaiser Morse Vehicle Trips	11,511
		Average Kaiser Morse VMT Per Trip	11.5

Note:

Trips include employees and patients

Baseline Plus Medical Center Phase 1 Level of Service (LOS) Calculations

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Baseline Plus Phase 1 Medical Center**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	839	825	98.3%	82.3	5.2	F
	Through	12	13	110.0%	91.8	16.3	F
	Right Turn	495	468	94.5%	59.3	5.4	E
	Subtotal	1,346	1,306	97.0%	74.2	5.2	E
EB	Left Turn						
	Through	297	306	103.0%	21.3	2.1	C
	Right Turn	46	54	118.3%	3.6	1.2	A
	Subtotal	343	360	105.1%	18.6	1.7	B
WB	Left Turn	254	223	87.9%	8.1	1.9	A
	Through	144	125	86.7%	8.2	2.3	A
	Right Turn						
	Subtotal	398	348	87.4%	8.1	1.7	A
Total		2,087	2,014	96.5%	52.9	3.8	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn	51	50	98.0%	29.1	7.9	C
	Through	8	11	135.0%	29.3	11.1	C
	Right Turn	821	804	97.9%	36.9	10.0	D
	Subtotal	880	865	98.3%	36.4	9.6	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	140	102.2%	16.4	6.7	B
	Through	999	974	97.5%	5.9	1.9	A
	Right Turn						
	Subtotal	1,136	1,114	98.1%	7.3	2.0	A
WB	Left Turn						
	Through	347	296	85.4%	16.6	2.9	B
	Right Turn	421	396	94.0%	3.3	0.5	A
	Subtotal	768	692	90.1%	9.0	1.7	A
Total		2,784	2,671	95.9%	17.2	3.5	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	221	206	93.0%	29.6	3.2	C
	Through	11	14	130.9%	29.3	13.2	C
	Right Turn	9	10	111.1%	5.7	3.7	A
	Subtotal	241	230	95.4%	28.5	2.7	C
SB	Left Turn	36	34	93.3%	40.8	7.0	D
	Through	3	4	133.3%	32.3	30.9	C
	Right Turn	68	72	106.5%	5.4	0.8	A
	Subtotal	107	110	102.8%	17.1	2.7	B
EB	Left Turn	126	118	93.7%	37.7	9.7	D
	Through	1,124	1,079	96.0%	16.7	2.6	B
	Right Turn	570	578	101.5%	3.7	0.2	A
	Subtotal	1,820	1,776	97.6%	14.0	1.7	B
WB	Left Turn	34	33	97.6%	31.2	8.2	C
	Through	479	431	90.0%	16.7	3.8	B
	Right Turn	10	13	128.0%	13.8	8.4	B
	Subtotal	523	477	91.2%	17.6	3.5	B
Total		2,691	2,593	96.4%	16.0	1.7	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	18	85.7%	40.8	15.0	D
	Through						
	Right Turn	8	8	95.0%	3.9	2.6	A
	Subtotal	29	26	88.3%	29.2	10.1	C
SB	Left Turn	15	13	88.0%	35.9	18.0	D
	Through						
	Right Turn	17	19	110.6%	5.0	1.8	A
	Subtotal	32	32	100.0%	20.1	9.0	C
EB	Left Turn	57	56	98.2%	35.9	6.5	D
	Through	1,018	974	95.7%	4.0	1.2	A
	Right Turn	94	77	82.1%	3.2	0.9	A
	Subtotal	1,169	1,107	94.7%	5.6	1.4	A
WB	Left Turn	21	13	62.9%	39.9	21.6	D
	Through	485	446	92.0%	5.7	1.3	A
	Right Turn	34	34	100.0%	5.4	3.2	A
	Subtotal	540	494	91.4%	6.8	1.8	A
Total		1,770	1,658	93.7%	6.6	1.5	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	39	94.6%	38.3	5.3	D
	Through	3	4	120.0%	15.5	15.9	B
	Right Turn	10	12	116.0%	13.5	16.8	B
	Subtotal	54	54	100.0%	31.6	5.8	C
SB	Left Turn	5	2	48.0%	19.0	29.6	B
	Through	10	7	68.0%	25.6	22.4	C
	Right Turn	7	6	91.4%	3.7	1.1	A
	Subtotal	22	16	70.9%	22.3	12.1	C
EB	Left Turn	56	49	87.9%	35.1	6.3	D
	Through	980	936	95.6%	6.6	2.1	A
	Right Turn	5	4	72.0%	0.9	2.1	A
	Subtotal	1,041	989	95.0%	8.1	2.0	A
WB	Left Turn	24	24	98.3%	36.6	9.6	D
	Through	492	450	91.5%	5.0	1.4	A
	Right Turn	26	25	96.9%	5.3	3.3	A
	Subtotal	542	499	92.0%	6.5	1.5	A
Total		1,659	1,558	93.9%	8.5	1.7	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	26.9	25.2	C
	Through	5	4	72.0%	31.1	29.4	C
	Right Turn	5	10	192.0%	6.9	3.7	A
	Subtotal	15	18	117.3%	24.5	12.5	C
SB	Left Turn	16	12	75.0%	36.0	10.9	D
	Through	5	6	120.0%	26.5	16.6	C
	Right Turn	20	26	132.0%	4.7	1.4	A
	Subtotal	41	44	108.3%	17.8	8.5	B
EB	Left Turn	54	53	98.5%	41.9	9.2	D
	Through	933	887	95.1%	4.1	1.4	A
	Right Turn	8	7	85.0%	1.0	1.0	A
	Subtotal	995	947	95.2%	6.2	1.0	A
WB	Left Turn	9	9	97.8%	39.7	15.3	D
	Through	517	466	90.1%	6.4	2.0	A
	Right Turn	17	15	87.1%	5.4	4.3	A
	Subtotal	543	490	90.2%	7.1	1.8	A
Total		1,594	1,499	94.0%	7.1	1.1	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	30	89.4%	47.5	9.1	D
	Through	82	72	88.3%	43.9	18.5	D
	Right Turn	299	268	89.8%	35.3	15.0	D
	Subtotal	415	371	89.4%	37.9	14.7	D
SB	Left Turn	7	8	108.6%	47.3	35.9	D
	Through	16	17	107.5%	41.0	13.9	D
	Right Turn	21	20	95.2%	37.4	13.8	D
	Subtotal	44	45	101.8%	42.5	9.2	D
EB	Left Turn	124	114	91.6%	46.2	8.7	D
	Through	734	686	93.4%	35.4	4.9	D
	Right Turn	96	84	87.5%	31.6	10.5	C
	Subtotal	954	883	92.6%	36.4	4.9	D
WB	Left Turn	433	364	84.0%	110.7	33.1	F
	Through	490	439	89.6%	40.1	14.8	D
	Right Turn	14	14	97.1%	41.5	22.4	D
	Subtotal	937	816	87.1%	71.8	23.0	E
Total		2,350	2,115	90.0%	50.5	12.0	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	14	113.3%	35.5	10.2	D
	Through	32	29	91.3%	33.3	8.7	C
	Right Turn	12	17	143.3%	7.5	3.3	A
	Subtotal	56	60	107.1%	27.1	7.7	C
SB	Left Turn	7	7	97.1%	32.0	25.2	C
	Through	7	6	91.4%	45.4	23.1	D
	Right Turn	32	29	91.3%	7.6	2.2	A
	Subtotal	46	42	92.2%	18.3	5.4	B
EB	Left Turn	137	133	97.2%	37.6	7.3	D
	Through	864	796	92.1%	9.9	2.1	A
	Right Turn	39	33	84.1%	5.5	1.2	A
	Subtotal	1,040	962	92.5%	13.5	1.7	B
WB	Left Turn	15	13	88.0%	37.2	17.2	D
	Through	1,000	968	96.8%	10.4	1.3	B
	Right Turn	51	54	105.9%	6.0	1.7	A
	Subtotal	1,066	1,035	97.1%	10.6	1.2	B
Total		2,208	2,099	95.1%	12.6	1.2	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	24	109.1%	46.5	11.7	D
	Through	7	7	102.9%	41.7	22.5	D
	Right Turn	27	25	91.9%	13.5	8.8	B
	Subtotal	56	56	100.0%	30.7	6.9	C
SB	Left Turn	40	40	99.0%	33.4	6.2	C
	Through	11	14	127.3%	35.2	7.9	D
	Right Turn	21	25	118.1%	15.8	4.7	B
	Subtotal	72	78	108.9%	27.5	4.2	C
EB	Left Turn	26	20	76.9%	45.1	13.8	D
	Through	829	773	93.3%	10.6	1.8	B
	Right Turn	28	24	87.1%	5.2	2.4	A
	Subtotal	883	818	92.6%	11.3	1.6	B
WB	Left Turn	27	21	78.5%	36.5	7.1	D
	Through	1,023	988	96.6%	10.3	1.5	B
	Right Turn	27	24	90.4%	8.9	4.1	A
	Subtotal	1,077	1,034	96.0%	10.8	1.4	B
Total		2,088	1,986	95.1%	12.2	1.0	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	64	99.1%	68.1	11.5	E
	Through	1,035	1,051	101.5%	15.8	1.8	B
	Right Turn	2	1	60.0%	0.3	0.5	A
	Subtotal	1,102	1,116	101.3%	18.9	2.1	B
SB	Left Turn						
	Through	2,455	2,164	88.1%	61.6	5.6	E
	Right Turn	1,076	1,038	96.4%	18.9	2.7	B
	Subtotal	3,531	3,202	90.7%	47.8	4.6	D
EB	Left Turn	832	630	75.8%	93.3	21.9	F
	Through						
	Right Turn	20	18	90.0%	22.9	13.9	C
	Subtotal	852	648	76.1%	91.4	22.0	F
WB	Left Turn						
	Through	1	1	80.0%	16.3	34.5	B
	Right Turn	2	2	80.0%	1.2	1.9	A
	Subtotal	3	2	80.0%	17.5	33.9	B
Total		5,488	4,969	90.5%	46.8	4.2	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	131	133	101.7%	0.7	0.3	A
	Right Turn	3	2	80.0%	0.6	0.2	A
	Subtotal	134	136	101.2%	0.7	0.3	A
SB	Left Turn	245	214	87.3%	8.1	0.4	A
	Through	330	366	110.9%	6.0	0.4	A
	Right Turn						
	Subtotal	575	580	100.9%	6.8	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	2	66.7%	3.2	5.1	A
	Through						
	Right Turn	49	49	99.6%	3.3	0.7	A
	Subtotal	52	51	97.7%	3.5	0.6	A
Total		761	766	100.7%	5.5	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	43	98.2%	4.5	0.5	A
	Through	49	53	107.8%	5.8	0.3	A
	Right Turn						
	Subtotal	93	96	103.2%	5.2	0.3	A
SB	Left Turn						
	Through	31	27	86.5%	7.5	1.2	A
	Right Turn	8	6	80.0%	4.1	1.9	A
	Subtotal	39	33	85.1%	6.8	1.2	A
EB	Left Turn	5	4	80.0%	3.5	3.5	A
	Through						
	Right Turn	243	211	86.9%	4.2	0.5	A
	Subtotal	248	215	86.8%	4.2	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	344	90.6%	4.8	0.5	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	24	98.3%	32.0	12.7	C
	Through	376	360	95.9%	36.5	7.6	D
	Right Turn	26	28	106.2%	33.3	10.7	C
	Subtotal	426	412	96.6%	36.2	7.3	D
SB	Left Turn	11	10	87.3%	86.3	48.9	F
	Through	529	370	69.9%	57.8	26.2	E
	Right Turn	7	5	74.3%	67.2	49.0	E
	Subtotal	547	384	70.3%	58.8	26.0	E
EB	Left Turn	10	10	100.0%	30.5	20.9	C
	Through	46	38	82.6%	41.3	13.6	D
	Right Turn	73	72	99.2%	26.0	15.8	C
	Subtotal	129	120	93.3%	31.7	12.9	C
WB	Left Turn	261	204	78.2%	67.1	17.2	E
	Through	68	57	83.5%	73.4	15.8	E
	Right Turn	27	20	72.6%	31.3	11.1	C
	Subtotal	356	280	78.8%	65.6	15.1	E
Total		1,458	1,197	82.1%	49.3	10.4	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	30	98.1%	46.6	11.4	D
	Through	101	103	101.8%	37.8	4.4	D
	Right Turn	22	26	118.2%	39.7	11.0	D
	Subtotal	154	159	103.4%	39.4	3.9	D
SB	Left Turn	2	2	120.0%	8.6	12.4	A
	Through	17	16	94.1%	47.5	11.5	D
	Right Turn	9	7	75.6%	20.2	14.2	C
	Subtotal	28	25	90.0%	38.5	11.4	D
EB	Left Turn						
	Through	61	54	87.9%	36.5	12.0	D
	Right Turn	22	21	94.5%	18.9	13.5	B
	Subtotal	83	74	89.6%	30.9	9.9	C
SW	Left Turn	18	17	93.3%	9.1	7.9	A
	Through	2,289	2,000	87.4%	12.0	2.8	B
	Right Turn	249	222	89.0%	17.3	3.5	B
	Subtotal	2,556	2,239	87.6%	12.5	2.9	B
Total		2,821	2,498	88.5%	15.1	2.7	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	136	107.4%	9.6	1.1	A
	Through	1,075	1,073	99.8%	7.8	0.7	A
	Right Turn	6	8	126.7%	1.2	2.1	A
	Subtotal	1,208	1,217	100.7%	8.0	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	51	108.9%	18.5	4.4	B
	Through	6	8	126.7%	12.7	11.0	B
	Right Turn						
	Subtotal	53	59	110.9%	18.0	4.3	B
WB	Left Turn						
	Through	6	8	140.0%	11.4	10.0	B
	Right Turn	2	3	140.0%	1.6	2.1	A
	Subtotal	8	11	140.0%	9.6	8.5	A
Total		1,269	1,287	101.4%	8.4	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	20	122.5%	9.5	5.5	A
	Through	13	13	101.5%	15.1	9.1	B
	Right Turn						
	Subtotal	29	33	113.1%	12.5	6.7	B
SB	Left Turn						
	Through	25	20	81.6%	14.3	5.3	B
	Right Turn	33	33	99.4%	7.4	3.2	A
	Subtotal	58	53	91.7%	10.5	3.6	B
EB	Left Turn						
	Through	8	8	100.0%	21.6	15.1	C
	Right Turn						
	Subtotal	8	8	100.0%	21.6	15.1	C
WB	Left Turn	39	32	83.1%	6.2	2.2	A
	Through	2,428	2,118	87.2%	9.7	1.6	A
	Right Turn	8	5	60.0%	3.9	2.1	A
	Subtotal	2,475	2,155	87.1%	9.6	1.6	A
Total		2,570	2,249	87.5%	9.7	1.5	A

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	121	117	96.5%	1.5	0.9	A
	Right Turn	3	13	440.0%	1.1	0.7	A
	Subtotal	124	130	104.8%	1.4	0.8	A
SB	Left Turn	81	64	78.5%	4.8	1.1	A
	Through	252	299	118.6%	2.4	0.8	A
	Right Turn						
	Subtotal	333	362	108.8%	2.8	0.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	6	5	86.7%	3.4	3.0	A
	Through						
	Right Turn	17	15	87.1%	4.6	0.4	A
	Subtotal	23	20	87.0%	4.9	0.5	A
Total		480	512	106.8%	2.5	0.7	A

Intersection 43 **5th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	88	75.9%	1.0	0.3	A
	Through						
	Right Turn						
	Subtotal	116	88	75.9%	1.0	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	38	37	97.9%	2.9	0.3	A
	Subtotal	38	37	97.9%	2.9	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		154	125	81.3%	1.6	0.3	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	146	90.9%	8.5	1.6	A
	Right Turn	400	420	105.0%	5.6	1.1	A
	Subtotal	561	566	101.0%	6.4	1.2	A
SB	Left Turn	211	204	96.5%	26.1	13.4	C
	Through	340	344	101.1%	5.2	1.2	A
	Right Turn						
	Subtotal	551	547	99.3%	13.1	6.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	201	168	83.4%	26.2	3.2	C
	Through						
	Right Turn	10	13	128.0%	13.8	2.0	B
	Subtotal	211	180	85.5%	25.3	3.0	C
Total		1,323	1,294	97.8%	11.8	2.9	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	65	34	51.7%	6.2	1.6	A
	Through						
	Right Turn	53	53	100.4%	3.2	0.9	A
	Subtotal	118	87	73.6%	4.3	0.9	A
EB	Left Turn	64	73	114.4%	5.8	1.4	A
	Through	547	552	100.8%	5.3	0.5	A
	Right Turn						
	Subtotal	611	625	102.3%	5.3	0.6	A
WB	Left Turn						
	Through	158	126	80.0%	9.6	1.5	A
	Right Turn	134	28	20.9%	7.7	0.7	A
	Subtotal	292	154	52.9%	9.1	1.1	A
Total		1,021	866	84.8%	5.9	0.4	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	60	119	198.0%	7.7	1.4	A
	Through						
	Right Turn	12	9	76.7%	2.4	1.3	A
	Subtotal	72	128	177.8%	7.3	1.2	A
EB	Left Turn	54	57	105.9%	16.7	2.0	B
	Through	558	528	94.7%	12.8	1.0	B
	Right Turn						
	Subtotal	612	586	95.7%	13.2	1.0	B
WB	Left Turn						
	Through	280	145	51.9%	4.8	0.6	A
	Right Turn	220	283	128.5%	4.7	0.6	A
	Subtotal	500	428	85.6%	4.8	0.5	A
Total		1,184	1,142	96.4%	9.4	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	7	136.0%	6.6	3.9	A
	Through						
	Right Turn	5	7	136.0%	2.7	2.2	A
	Subtotal	10	14	136.0%	5.8	3.2	A
EB	Left Turn	5	6	120.0%	21.4	5.2	C
	Through	613	641	104.5%	19.7	1.3	B
	Right Turn						
	Subtotal	618	647	104.7%	19.7	1.3	B
WB	Left Turn						
	Through	495	424	85.7%	3.9	0.6	A
	Right Turn	5	4	88.0%	1.9	1.5	A
	Subtotal	500	429	85.8%	3.9	0.6	A
Total		1,128	1,089	96.6%	13.4	1.1	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	133	154	115.5%	15.7	2.1	B
	Through	44	48	108.2%	12.2	2.9	B
	Right Turn	7	10	142.9%	9.2	6.6	A
	Subtotal	184	211	114.8%	14.6	1.9	B
SB	Left Turn	19	24	128.4%	17.4	4.8	B
	Through	19	14	73.7%	9.4	4.6	A
	Right Turn						
	Subtotal	38	38	101.1%	14.6	4.2	B
EB	Left Turn						
	Through	519	522	100.5%	36.6	3.5	D
	Right Turn	99	122	123.2%	32.0	3.4	C
	Subtotal	618	644	104.1%	35.7	3.4	D
WB	Left Turn	10	8	76.0%	18.7	15.9	B
	Through	367	275	75.0%	8.1	1.2	A
	Right Turn	72	42	58.9%	5.5	1.9	A
	Subtotal	449	325	72.4%	8.0	1.2	A
Total		1,289	1,218	94.5%	24.1	2.6	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	8	152.0%	6.6	9.6	A
	Through						
	Right Turn	40	44	111.0%	6.2	2.6	A
	Subtotal	45	52	115.6%	6.2	2.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	535	540	100.9%	23.0	7.3	C
	Right Turn	10	11	112.0%	17.0	14.1	B
	Subtotal	545	551	101.1%	22.9	7.3	C
WB	Left Turn	101	69	68.5%	28.7	7.6	C
	Through	444	319	71.8%	5.9	1.2	A
	Right Turn						
	Subtotal	545	388	71.2%	10.0	2.3	B
Total		1,135	991	87.3%	17.0	4.4	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	85	113.6%	24.7	11.7	C
	Through	29	30	102.1%	21.3	8.7	C
	Right Turn						
	Subtotal	104	115	110.4%	24.0	9.0	C
SB	Left Turn						
	Through	393	234	59.6%	115.8	32.1	F
	Right Turn	470	300	63.9%	104.8	31.3	F
	Subtotal	863	535	62.0%	109.5	31.3	F
EB	Left Turn	397	390	98.3%	24.7	4.7	C
	Through						
	Right Turn	178	185	103.8%	6.3	1.1	A
	Subtotal	575	575	100.0%	18.9	3.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,542	1,225	79.4%	57.8	10.8	E

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	184	212	115.2%	0.2	0.0	A
	Right Turn						
	Subtotal	184	212	115.2%	0.2	0.0	A
SB	Left Turn						
	Through	128	144	112.5%	0.5	0.1	A
	Right Turn						
	Subtotal	128	144	112.5%	0.5	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		312	356	114.1%	0.3	0.0	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	53	118.2%	0.1	0.1	A
	Subtotal	45	53	118.2%	0.1	0.1	A
SB	Left Turn Through Right Turn	111	80	72.1%	0.9	0.1	A
	Subtotal	111	80	72.1%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	133	85.4%	0.6	0.2	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	184	213	115.7%	0.7	0.3	A
	Subtotal	184	213	115.7%	0.7	0.3	A
SB	Left Turn Through Right Turn	128	141	110.0%	0.0	0.1	A
	Subtotal	128	141	110.0%	0.0	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		312	354	113.3%	0.4	0.2	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	45	52	114.7%	0.2	0.3	A
	Right Turn						
	Subtotal	45	52	114.7%	0.2	0.3	A
SB	Left Turn						
	Through	111	80	72.1%	0.2	0.1	A
	Right Turn						
	Subtotal	111	80	72.1%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		156	132	84.4%	0.2	0.1	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	442	442	99.9%	28.5	2.4	C
	Through	69	68	98.0%	30.8	2.6	C
	Right Turn	314	315	100.3%	9.8	1.6	A
	Subtotal	825	824	99.9%	21.6	1.7	C
EB	Left Turn						
	Through	592	550	93.0%	79.9	44.8	E
	Right Turn	56	47	84.3%	6.3	2.7	A
	Subtotal	648	598	92.2%	74.2	41.9	E
WB	Left Turn	659	541	82.1%	13.3	2.6	B
	Through	393	327	83.2%	8.8	1.8	A
	Right Turn						
	Subtotal	1,052	868	82.5%	11.6	2.0	B
Total		2,525	2,290	90.7%	31.6	10.7	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	68	117.9%	24.7	6.0	C
	Through	10	10	96.0%	26.7	20.4	C
	Right Turn	431	411	95.3%	9.4	1.5	A
	Subtotal	499	489	98.0%	12.2	0.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	430	367	85.4%	56.2	6.1	E
	Through	604	612	101.3%	1.9	0.5	A
	Right Turn						
	Subtotal	1,034	979	94.7%	22.3	2.5	C
WB	Left Turn						
	Through	994	792	79.7%	17.3	2.4	B
	Right Turn	1,174	887	75.6%	5.4	0.2	A
	Subtotal	2,168	1,679	77.5%	11.0	1.1	B
Total		3,701	3,147	85.0%	14.7	0.8	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	643	530	82.5%	97.5	45.6	F
	Through	4	32	800.0%	35.7	27.4	D
	Right Turn	9	8	88.9%	35.3	30.3	D
	Subtotal	656	570	87.0%	93.3	45.1	F
SB	Left Turn	34	28	83.5%	41.5	9.8	D
	Through	8	13	165.0%	28.6	14.5	C
	Right Turn	166	161	96.9%	13.4	2.3	B
	Subtotal	208	202	97.3%	18.4	2.1	B
EB	Left Turn	80	79	98.5%	32.6	3.4	C
	Through	688	706	102.6%	17.4	3.8	B
	Right Turn	267	266	99.8%	2.7	0.2	A
	Subtotal	1,035	1,051	101.5%	14.8	2.7	B
WB	Left Turn	18	20	113.3%	32.9	13.7	C
	Through	1,359	1,028	75.6%	57.8	5.3	E
	Right Turn	9	7	80.0%	50.0	36.7	D
	Subtotal	1,386	1,056	76.2%	57.5	5.1	E
Total		3,285	2,879	87.6%	46.1	10.2	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	92	103.4%	54.3	9.9	D
	Through						
	Right Turn	15	14	90.7%	4.5	3.6	A
	Subtotal	104	106	101.5%	48.1	10.3	D
SB	Left Turn	39	42	106.7%	29.1	8.3	C
	Through						
	Right Turn	17	24	138.8%	35.3	23.2	D
	Subtotal	56	65	116.4%	33.1	10.0	C
EB	Left Turn	13	15	113.8%	40.8	13.7	D
	Through	706	689	97.6%	3.9	0.8	A
	Right Turn	12	13	106.7%	2.7	1.5	A
	Subtotal	731	716	98.0%	4.6	1.0	A
WB	Left Turn	2	0	20.0%	6.8	21.6	A
	Through	1,280	963	75.3%	53.4	14.0	D
	Right Turn	10	6	60.0%	45.4	48.5	D
	Subtotal	1,292	970	75.0%	53.4	14.0	D
Total		2,183	1,857	85.1%	33.7	8.2	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	26	110.0%	38.3	7.6	D
	Through	5	6	120.0%	39.0	23.1	D
	Right Turn	24	27	111.7%	9.0	2.9	A
	Subtotal	53	59	111.7%	25.0	6.0	C
SB	Left Turn	24	20	81.7%	29.3	6.4	C
	Through	19	22	113.7%	40.1	9.1	D
	Right Turn	49	50	102.9%	25.8	4.9	C
	Subtotal	92	92	99.6%	29.7	4.0	C
EB	Left Turn	8	6	70.0%	22.6	21.8	C
	Through	747	735	98.4%	7.2	2.7	A
	Right Turn	5	7	136.0%	3.9	9.8	A
	Subtotal	760	748	98.4%	7.3	2.7	A
WB	Left Turn	11	11	101.8%	68.3	43.4	E
	Through	1,219	992	81.3%	42.7	22.1	D
	Right Turn	10	7	72.0%	39.8	45.7	D
	Subtotal	1,240	1,010	81.5%	43.0	22.2	D
Total		2,145	1,908	89.0%	27.7	11.7	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	80.0%	25.6	28.0	C
	Through	5	6	112.0%	19.9	22.1	B
	Right Turn	8	8	100.0%	6.2	4.9	A
	Subtotal	17	17	98.8%	22.0	15.4	C
SB	Left Turn	8	9	110.0%	29.9	16.4	C
	Through	5	8	152.0%	18.9	21.0	B
	Right Turn	70	64	90.9%	15.9	4.5	B
	Subtotal	83	80	96.4%	20.0	4.5	B
EB	Left Turn	16	16	100.0%	54.8	14.4	D
	Through	774	767	99.1%	4.0	1.3	A
	Right Turn	5	4	72.0%	3.1	3.7	A
	Subtotal	795	786	98.9%	5.0	1.3	A
WB	Left Turn	1	1	80.0%	8.5	23.3	A
	Through	1,166	1,061	91.0%	15.3	10.2	B
	Right Turn	3	4	133.3%	12.8	11.6	B
	Subtotal	1,170	1,066	91.1%	15.3	10.2	B
Total		2,065	1,949	94.4%	11.4	5.5	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	66	61.1%	40.7	8.8	D
	Through	27	17	63.7%	34.4	14.1	C
	Right Turn	409	270	66.0%	26.1	13.4	C
	Subtotal	544	353	64.9%	29.2	10.7	C
SB	Left Turn	53	61	114.7%	40.4	9.5	D
	Through	91	91	99.8%	28.1	6.7	C
	Right Turn	76	84	110.5%	33.5	7.3	C
	Subtotal	220	236	107.1%	32.8	4.9	C
EB	Left Turn	4	4	110.0%	37.9	31.7	D
	Through	699	691	98.9%	30.8	6.3	C
	Right Turn	87	90	103.0%	28.5	6.3	C
	Subtotal	790	785	99.4%	30.5	6.1	C
WB	Left Turn	191	187	98.0%	46.3	7.3	D
	Through	988	961	97.3%	19.7	3.7	B
	Right Turn	14	14	102.9%	17.3	11.4	B
	Subtotal	1,193	1,163	97.5%	24.0	3.7	C
Total		2,747	2,537	92.3%	27.5	4.6	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	32	90.0%	39.8	9.8	D
	Through	3	3	93.3%	17.4	19.3	B
	Right Turn	60	55	91.3%	8.9	1.2	A
	Subtotal	99	90	90.9%	20.4	4.2	C
SB	Left Turn	84	86	102.4%	29.6	4.0	C
	Through	63	62	97.8%	27.1	6.3	C
	Right Turn	134	142	106.0%	10.9	1.9	B
	Subtotal	281	290	103.1%	20.0	2.0	B
EB	Left Turn	37	32	85.4%	38.2	8.9	D
	Through	1,080	959	88.8%	8.6	1.8	A
	Right Turn	44	41	93.6%	6.0	1.3	A
	Subtotal	1,161	1,032	88.9%	9.5	1.9	A
WB	Left Turn	7	7	102.9%	23.2	22.4	C
	Through	945	939	99.3%	7.8	1.6	A
	Right Turn	17	16	94.1%	6.0	3.7	A
	Subtotal	969	962	99.3%	8.0	1.5	A
Total		2,510	2,373	94.5%	10.5	0.9	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	21	92.2%	41.8	7.8	D
	Through	6	7	113.3%	36.4	26.9	D
	Right Turn	30	30	98.7%	15.8	7.2	B
	Subtotal	59	58	97.6%	28.1	10.0	C
SB	Left Turn	29	30	103.4%	37.1	6.3	D
	Through	10	14	136.0%	40.6	18.0	D
	Right Turn	27	26	94.8%	13.4	7.6	B
	Subtotal	66	69	104.8%	27.9	5.2	C
EB	Left Turn	14	12	88.6%	43.0	22.5	D
	Through	1,183	1,041	88.0%	8.6	2.3	A
	Right Turn	27	25	91.9%	5.9	3.2	A
	Subtotal	1,224	1,078	88.1%	8.9	2.3	A
WB	Left Turn	18	16	88.9%	38.7	21.4	D
	Through	919	922	100.4%	7.5	1.3	A
	Right Turn	6	6	100.0%	4.5	1.4	A
	Subtotal	943	944	100.1%	8.1	1.5	A
Total		2,292	2,149	93.8%	9.7	1.5	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	57	94.7%	88.8	17.6	F
	Through	3,902	3,487	89.4%	51.7	11.9	D
	Right Turn	9	9	97.8%	35.7	21.8	D
	Subtotal	3,971	3,552	89.5%	52.3	12.0	D
SB	Left Turn						
	Through	1,840	1,812	98.5%	31.6	11.8	C
	Right Turn	871	878	100.8%	10.4	4.8	B
	Subtotal	2,711	2,690	99.2%	24.8	9.8	C
EB	Left Turn	970	780	80.4%	60.6	17.6	E
	Through						
	Right Turn	117	90	76.9%	13.0	7.7	B
	Subtotal	1,087	870	80.0%	55.7	16.2	E
WB	Left Turn						
	Through	5	3	56.0%	52.2	119.6	D
	Right Turn	7	9	125.7%	19.4	14.6	B
	Subtotal	12	12	96.7%	62.0	114.4	E
Total		7,781	7,123	91.5%	42.3	8.4	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	445	398	89.4%	29.9	28.1	D
	Right Turn	2	5	260.0%	17.2	18.1	C
	Subtotal	447	403	90.2%	29.8	28.1	D
SB	Left Turn	70	68	97.7%	8.9	1.4	A
	Through	238	250	104.9%	5.6	0.6	A
	Right Turn						
	Subtotal	308	318	103.2%	6.3	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through						
	Right Turn	247	217	87.9%	51.8	56.5	F
	Subtotal	248	217	87.6%	51.8	56.5	F
Total		1,003	938	93.6%	25.9	22.5	D

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	230	96.0%	5.3	0.3	A
	Through	45	50	112.0%	6.4	0.6	A
	Right Turn						
	Subtotal	285	281	98.5%	5.5	0.3	A
SB	Left Turn						
	Through	27	32	120.0%	7.8	1.2	A
	Right Turn	8	7	85.0%	2.6	1.9	A
	Subtotal	35	39	112.0%	7.2	1.1	A
EB	Left Turn	8	10	125.0%	4.6	1.7	A
	Through						
	Right Turn	64	62	96.3%	3.5	0.9	A
	Subtotal	72	72	99.4%	3.7	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	392	99.9%	5.4	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	98	64	64.9%	89.4	19.9	F
	Through	522	332	63.5%	99.4	17.2	F
	Right Turn	242	139	57.4%	92.4	16.3	F
	Subtotal	862	534	61.9%	96.5	16.3	F
SB	Left Turn	36	34	93.3%	60.2	22.3	E
	Through	320	312	97.5%	40.4	6.6	D
	Right Turn	15	12	77.3%	31.2	18.5	C
	Subtotal	371	357	96.3%	41.5	6.7	D
EB	Left Turn	1	1	80.0%	15.1	32.0	B
	Through	55	47	85.8%	36.8	8.0	D
	Right Turn	18	23	126.7%	13.9	5.5	B
	Subtotal	74	71	95.7%	30.3	5.8	C
WB	Left Turn	272	246	90.6%	50.9	15.4	D
	Through	58	55	95.2%	53.8	19.2	D
	Right Turn	19	18	96.8%	23.7	12.7	C
	Subtotal	349	320	91.7%	50.1	14.9	D
Total		1,656	1,282	77.4%	65.8	8.6	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	39	91.2%	43.9	9.2	D
	Through	87	100	114.5%	36.3	6.0	D
	Right Turn	22	21	94.5%	36.8	16.3	D
	Subtotal	152	160	105.0%	38.2	5.1	D
SB	Left Turn	5	6	112.0%	13.3	13.3	B
	Through	109	109	99.8%	37.9	9.0	D
	Right Turn	7	10	137.1%	26.3	15.3	C
	Subtotal	121	124	102.5%	36.2	8.0	D
EB	Left Turn	5	4	80.0%	44.1	29.1	D
	Through	235	152	64.7%	33.0	8.1	C
	Right Turn	61	44	72.8%	21.6	8.6	C
	Subtotal	301	200	66.6%	30.5	7.3	C
SW	Left Turn	34	30	89.4%	8.9	5.4	A
	Through	1,619	1,562	96.5%	11.4	2.3	B
	Right Turn	256	225	87.8%	17.8	3.0	B
	Subtotal	1,909	1,818	95.2%	12.2	2.4	B
Total		2,483	2,302	92.7%	16.9	1.7	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	54	100.0%	14.1	2.1	B
	Through	3,401	3,416	100.4%	12.1	1.0	B
	Right Turn	2	4	200.0%	6.7	7.4	A
	Subtotal	3,457	3,474	100.5%	12.1	1.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	258	247	95.8%	20.5	2.5	C
	Through	3	5	173.3%	12.1	11.2	B
	Right Turn						
	Subtotal	261	252	96.7%	20.5	2.3	C
WB	Left Turn						
	Through	10	7	68.0%	12.5	11.6	B
	Right Turn	3	5	160.0%	8.0	6.8	A
	Subtotal	13	12	89.2%	10.4	7.9	B
Total		3,731	3,738	100.2%	12.7	0.9	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	33	105.8%	16.6	3.5	B
	Through	13	13	98.5%	13.8	8.0	B
	Right Turn						
	Subtotal	44	46	103.6%	15.8	4.7	B
SB	Left Turn						
	Through	158	153	97.0%	14.8	3.9	B
	Right Turn	65	48	74.5%	9.7	3.8	A
	Subtotal	223	202	90.4%	13.6	3.6	B
EB	Left Turn						
	Through	8	6	80.0%	27.0	23.0	C
	Right Turn						
	Subtotal	8	6	80.0%	24.9	24.5	C
WB	Left Turn	79	75	94.7%	7.6	2.1	A
	Through	1,871	1,801	96.2%	10.3	1.8	B
	Right Turn	7	6	80.0%	5.7	5.2	A
	Subtotal	1,957	1,881	96.1%	10.2	1.8	B
Total		2,232	2,135	95.6%	10.7	1.8	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	373	368	98.7%	3.4	1.1	A
	Right Turn	9	8	93.3%	2.1	1.3	A
	Subtotal	382	376	98.5%	3.4	1.1	A
SB	Left Turn	35	41	116.6%	12.4	2.6	B
	Through	204	202	98.8%	8.3	1.0	A
	Right Turn						
	Subtotal	239	242	101.4%	9.0	1.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	13	14	107.7%	6.7	2.6	A
	Through						
	Right Turn	74	76	103.2%	4.9	0.8	A
	Subtotal	87	90	103.9%	5.2	0.6	A
Total		708	709	100.2%	5.5	0.9	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	104	94	90.4%	1.0	0.4	A
	Through						
	Right Turn						
	Subtotal	104	94	90.4%	1.0	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	125	128	102.7%	4.4	1.5	A
	Subtotal	125	128	102.7%	4.4	1.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		229	222	97.1%	3.0	0.8	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	402	107.4%	17.7	1.8	B
	Right Turn	295	292	99.1%	14.1	2.1	B
	Subtotal	669	694	103.7%	16.2	1.7	B
SB	Left Turn	86	77	89.8%	41.5	16.9	D
	Through	409	424	103.8%	7.4	1.0	A
	Right Turn						
	Subtotal	495	502	101.3%	12.8	3.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	376	330	87.9%	32.9	3.2	C
	Through						
	Right Turn	55	46	83.6%	23.9	4.3	C
	Subtotal	431	376	87.3%	31.8	3.2	C
Total		1,595	1,572	98.6%	18.9	1.9	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	86	82	94.9%	7.4	1.5	A
	Through						
	Right Turn	88	79	90.0%	6.2	2.1	A
	Subtotal	174	161	92.4%	6.8	1.2	A
EB	Left Turn	100	108	108.0%	9.4	1.7	A
	Through	281	262	93.4%	4.9	1.3	A
	Right Turn						
	Subtotal	381	370	97.2%	6.2	1.0	A
WB	Left Turn						
	Through	343	305	88.9%	15.6	1.9	B
	Right Turn	32	30	93.8%	10.6	1.0	B
	Subtotal	375	335	89.3%	15.2	1.7	B
Total		930	866	93.1%	9.8	1.0	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	372	354	95.2%	9.2	1.0	A
	Through						
	Right Turn	59	59	99.7%	2.4	0.8	A
	Subtotal	431	413	95.8%	8.2	0.9	A
EB	Left Turn	14	19	137.1%	17.2	6.1	B
	Through	353	322	91.1%	13.4	1.9	B
	Right Turn						
	Subtotal	367	341	92.9%	13.6	1.9	B
WB	Left Turn						
	Through	316	277	87.6%	7.8	0.9	A
	Right Turn	182	167	91.6%	4.0	0.7	A
	Subtotal	498	444	89.1%	6.4	0.7	A
Total		1,296	1,197	92.4%	9.0	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	6	4	60.0%	11.9	18.7	B
	Through						
	Right Turn	6	6	93.3%	3.0	3.1	A
	Subtotal	12	9	76.7%	8.6	10.2	A
EB	Left Turn	6	4	73.3%	38.6	27.3	D
	Through	719	614	85.3%	35.3	14.0	D
	Right Turn						
	Subtotal	725	618	85.2%	35.3	14.0	D
WB	Left Turn						
	Through	492	447	90.9%	3.8	0.8	A
	Right Turn	6	8	133.3%	2.3	1.4	A
	Subtotal	498	455	91.4%	3.8	0.8	A
Total		1,235	1,082	87.6%	21.7	7.5	C

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	90	102.7%	15.1	3.7	B
	Through	46	48	103.5%	11.8	3.0	B
	Right Turn	5	6	128.0%	11.9	12.9	B
	Subtotal	139	144	103.9%	13.8	3.2	B
SB	Left Turn	73	69	94.2%	19.5	8.2	B
	Through	52	59	113.1%	11.7	3.1	B
	Right Turn						
	Subtotal	125	128	102.1%	15.9	4.8	B
EB	Left Turn						
	Through	566	440	77.7%	100.1	40.4	F
	Right Turn	159	114	71.7%	93.6	42.3	F
	Subtotal	725	554	76.4%	98.8	40.8	F
WB	Left Turn	29	22	75.9%	20.4	10.1	C
	Through	410	368	89.9%	6.6	1.1	A
	Right Turn	58	50	85.5%	4.3	1.9	A
	Subtotal	497	440	88.5%	7.0	1.2	A
Total		1,486	1,266	85.2%	48.5	16.8	D

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	7.4	8.7	A
	Through						
	Right Turn	205	206	100.3%	8.9	0.9	A
	Subtotal	210	210	100.0%	8.9	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	639	462	72.4%	82.1	18.0	F
	Right Turn	5	5	104.0%	52.3	46.4	D
	Subtotal	644	468	72.6%	82.1	17.9	F
WB	Left Turn	92	76	82.6%	30.5	4.5	C
	Through	492	439	89.3%	6.8	1.0	A
	Right Turn						
	Subtotal	584	515	88.2%	10.2	1.5	B
Total		1,438	1,193	82.9%	38.0	5.9	D

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	49	31	63.7%	180.7	102.4	F
	Through	221	147	66.6%	195.1	88.9	F
	Right Turn						
	Subtotal	270	178	66.1%	192.4	90.3	F
SB	Left Turn						
	Through	75	70	92.8%	23.6	3.0	C
	Right Turn	535	484	90.5%	17.7	3.2	B
	Subtotal	610	554	90.8%	18.5	3.1	B
EB	Left Turn	641	504	78.6%	34.9	3.8	C
	Through						
	Right Turn	203	153	75.3%	8.6	1.3	A
	Subtotal	844	656	77.8%	28.8	3.2	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,724	1,388	80.5%	45.0	10.1	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	139	142	102.2%	0.1	0.1	A
	Right Turn						
	Subtotal	139	142	102.2%	0.1	0.1	A
SB	Left Turn						
	Through	240	195	81.3%	0.9	0.2	A
	Right Turn						
	Subtotal	240	195	81.3%	0.9	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		379	337	89.0%	0.5	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	211	100.6%	0.2	0.1	A
	Subtotal	210	211	100.6%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	81	83.7%	0.9	0.1	A
	Subtotal	97	81	83.7%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	292	95.2%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	139	144	103.9%	0.1	0.1	A
	Subtotal	139	144	103.9%	0.1	0.1	A
SB	Left Turn Through Right Turn	240	197	82.0%	0.2	0.1	A
	Subtotal	240	197	82.0%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		379	341	90.0%	0.1	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	213	101.3%	0.1	0.1	A
	Subtotal	210	213	101.3%	0.1	0.1	A
SB	Left Turn Through Right Turn	97	81	83.3%	0.1	0.1	A
	Subtotal	97	81	83.3%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	294	95.6%	0.1	0.1	A

APPENDIX J.1.13:

Baseline Plus MLS Stadium Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	948	1,004	105.9%	34.6	5.1	C
	Through	3	4	133.3%	42.7	31.5	D
	Right Turn	320	342	106.8%	13.9	2.4	B
	Subtotal	1,271	1,350	106.2%	29.5	4.3	C
EB	Left Turn						
	Through	341	318	93.1%	20.1	1.8	C
	Right Turn	49	56	115.1%	3.5	1.4	A
	Subtotal	390	374	95.9%	17.6	1.6	B
WB	Left Turn	270	175	64.9%	9.8	1.9	A
	Through	206	175	85.0%	7.7	2.7	A
	Right Turn						
	Subtotal	476	350	73.6%	8.7	2.1	A
Total		2,137	2,074	97.1%	23.9	3.2	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	101	98	97.0%	18.5	3.8	B
	Through	1	2	160.0%	3.0	5.7	A
	Right Turn	726	710	97.9%	22.2	2.5	C
	Subtotal	828	810	97.8%	21.8	2.4	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	176	165	93.6%	21.4	6.0	C
	Through	1,113	1,140	102.4%	11.2	5.9	B
	Right Turn						
	Subtotal	1,289	1,305	101.2%	12.5	4.8	B
WB	Left Turn						
	Through	375	264	70.5%	15.6	2.9	B
	Right Turn	328	222	67.7%	2.5	0.4	A
	Subtotal	703	486	69.2%	9.6	1.6	A
Total		2,820	2,601	92.2%	14.8	3.0	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	53	91.0%	38.7	16.3	D
	Through	5	4	80.0%	23.2	24.8	C
	Right Turn	2	3	140.0%	7.7	7.2	A
	Subtotal	65	60	91.7%	36.8	15.5	D
SB	Left Turn	23	24	104.3%	34.6	11.1	C
	Through	3	3	106.7%	27.6	36.3	C
	Right Turn	70	74	105.1%	5.1	0.9	A
	Subtotal	96	101	105.0%	12.8	2.8	B
EB	Left Turn	67	64	95.5%	45.0	12.7	D
	Through	1,614	1,611	99.8%	8.2	2.7	A
	Right Turn	158	151	95.7%	2.3	0.1	A
	Subtotal	1,839	1,826	99.3%	8.9	2.4	A
WB	Left Turn	15	8	50.7%	26.9	19.5	C
	Through	575	373	64.9%	9.9	3.2	A
	Right Turn	16	10	65.0%	6.1	5.0	A
	Subtotal	606	391	64.6%	10.3	3.2	B
Total		2,606	2,378	91.2%	10.0	2.2	A

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	18	141.5%	44.5	16.1	D
	Through						
	Right Turn	5	7	144.0%	15.3	12.4	B
	Subtotal	18	26	142.2%	35.3	7.7	D
SB	Left Turn	2	4	200.0%	19.6	25.5	B
	Through						
	Right Turn	11	10	90.9%	4.5	2.8	A
	Subtotal	13	14	107.7%	11.4	11.1	B
EB	Left Turn	11	13	116.4%	38.7	15.0	D
	Through	1,622	1,625	100.2%	3.4	0.8	A
	Right Turn	6	8	126.7%	2.7	2.2	A
	Subtotal	1,639	1,645	100.4%	3.7	0.8	A
WB	Left Turn						
	Through	582	374	64.2%	2.7	1.1	A
	Right Turn	2	1	60.0%	0.6	1.5	A
	Subtotal	584	375	64.2%	2.7	1.1	A
Total		2,254	2,060	91.4%	4.0	0.9	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	33	31	94.5%	39.1	13.4	D
	Through	4	2	60.0%	13.9	25.1	B
	Right Turn	22	24	107.3%	15.3	7.6	B
	Subtotal	59	57	96.9%	26.5	5.6	C
SB	Left Turn	10	8	80.0%	27.2	11.3	C
	Through	10	9	92.0%	33.4	18.9	C
	Right Turn	9	9	102.2%	3.9	2.7	A
	Subtotal	29	26	91.0%	21.9	6.4	C
EB	Left Turn	6	7	120.0%	25.4	18.8	C
	Through	1,603	1,611	100.5%	6.2	2.5	A
	Right Turn	20	20	98.0%	4.8	2.1	A
	Subtotal	1,629	1,638	100.5%	6.2	2.4	A
WB	Left Turn	3	2	53.3%	10.3	18.6	B
	Through	542	335	61.8%	3.3	1.7	A
	Right Turn	5	2	40.0%	1.3	2.2	A
	Subtotal	550	338	61.5%	3.4	1.7	A
Total		2,267	2,060	90.9%	6.5	2.3	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	40.0%	3.6	11.5	A
	Through						
	Right Turn	4	6	140.0%	11.7	10.9	B
	Subtotal	5	6	120.0%	12.9	11.7	B
SB	Left Turn	6	7	113.3%	17.3	16.7	B
	Through						
	Right Turn	8	6	80.0%	3.7	2.4	A
	Subtotal	14	13	94.3%	13.2	10.4	B
EB	Left Turn	10	8	84.0%	61.6	25.9	E
	Through	1,622	1,582	97.6%	18.8	6.4	B
	Right Turn	3	3	93.3%	12.5	14.6	B
	Subtotal	1,635	1,594	97.5%	19.0	6.4	B
WB	Left Turn	3	2	66.7%	24.2	28.2	C
	Through	541	331	61.1%	8.7	1.3	A
	Right Turn	2	3	140.0%	4.4	1.5	A
	Subtotal	546	336	61.5%	9.0	1.3	A
Total		2,200	1,948	88.6%	17.2	5.3	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	52	74.3%	54.6	10.0	D
	Through	119	101	84.7%	37.6	5.8	D
	Right Turn	104	79	75.8%	29.3	7.5	C
	Subtotal	293	232	79.0%	38.3	5.6	D
SB	Left Turn	7	6	85.7%	34.8	37.7	C
	Through	10	9	92.0%	23.8	22.1	C
	Right Turn	13	13	98.5%	42.8	22.6	D
	Subtotal	30	28	93.3%	43.1	18.6	D
EB	Left Turn	432	357	82.6%	127.2	30.5	F
	Through	574	567	98.8%	55.2	10.4	E
	Right Turn	219	210	95.7%	50.3	9.6	D
	Subtotal	1,225	1,134	92.5%	77.1	16.3	E
WB	Left Turn	355	229	64.6%	104.6	26.0	F
	Through	896	566	63.1%	89.1	28.8	F
	Right Turn	311	202	65.0%	96.3	36.8	F
	Subtotal	1,562	997	63.8%	94.2	28.8	F
Total		3,110	2,390	76.8%	79.8	16.3	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	168	142	84.8%	33.6	5.0	C
	Through	1	1	80.0%	11.1	26.0	B
	Right Turn	63	50	79.4%	6.4	1.8	A
	Subtotal	232	193	83.3%	26.6	2.7	C
SB	Left Turn	7	9	131.4%	30.3	22.8	C
	Through	6	5	80.0%	29.7	19.0	C
	Right Turn	37	36	98.4%	11.7	4.6	B
	Subtotal	50	50	100.8%	18.0	4.1	B
EB	Left Turn	14	13	94.3%	39.7	12.4	D
	Through	546	530	97.0%	9.6	1.6	A
	Right Turn	12	14	116.7%	5.6	1.7	A
	Subtotal	572	557	97.3%	10.2	1.5	B
WB	Left Turn	44	30	67.3%	39.1	7.5	D
	Through	1,794	1,310	73.0%	9.1	2.6	A
	Right Turn	12	9	76.7%	6.5	7.2	A
	Subtotal	1,850	1,349	72.9%	9.8	2.6	A
Total		2,704	2,150	79.5%	11.6	1.9	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	25.9	24.5	C
	Through	5	6	128.0%	27.3	21.7	C
	Right Turn	9	5	57.8%	5.3	5.5	A
	Subtotal	19	15	80.0%	23.5	16.2	C
SB	Left Turn	21	22	106.7%	37.7	10.3	D
	Through	7	6	91.4%	34.7	25.5	C
	Right Turn	16	11	70.0%	11.1	7.2	B
	Subtotal	44	40	90.9%	30.1	6.6	C
EB	Left Turn	4	3	70.0%	33.9	34.1	C
	Through	593	560	94.5%	5.7	1.8	A
	Right Turn	19	23	122.1%	3.9	3.3	A
	Subtotal	616	586	95.2%	5.8	1.8	A
WB	Left Turn	11	9	83.6%	42.1	20.0	D
	Through	1,829	1,345	73.5%	6.1	1.3	A
	Right Turn	2	3	140.0%	3.1	0.7	A
	Subtotal	1,842	1,357	73.7%	6.4	1.4	A
Total		2,521	1,998	79.3%	6.9	1.3	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	55	107.5%	57.6	13.4	E
	Through	1,196	1,183	98.9%	8.7	1.2	A
	Right Turn	2	3	160.0%	1.5	1.6	A
	Subtotal	1,249	1,241	99.4%	10.9	1.5	B
SB	Left Turn						
	Through	1,644	1,397	85.0%	87.9	13.9	F
	Right Turn	1,817	1,331	73.2%	165.5	16.8	F
	Subtotal	3,461	2,728	78.8%	125.8	16.1	F
EB	Left Turn	615	544	88.5%	41.6	5.6	D
	Through						
	Right Turn	23	21	92.2%	5.0	1.0	A
	Subtotal	638	566	88.7%	40.1	4.8	D
WB	Left Turn						
	Through	13	8	58.5%	53.4	38.2	D
	Right Turn						
	Subtotal	13	8	58.5%	53.4	38.2	D
Total		5,361	4,542	84.7%	83.6	9.7	F

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	7	8	114.3%	5.0	2.2	A
	Right Turn						
	Subtotal	7	8	114.3%	5.0	2.2	A
SB	Left Turn	160	149	93.0%	5.0	0.3	A
	Through	7	8	120.0%	4.9	0.3	A
	Right Turn						
	Subtotal	167	157	94.1%	5.0	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	1	60.0%	2.8	4.9	A
	Through						
	Right Turn	37	32	86.5%	2.8	0.5	A
	Subtotal	39	33	85.1%	3.0	0.8	A
Total		213	198	93.1%	4.7	0.2	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	27	87.7%	4.6	0.8	A
	Through	49	42	85.7%	5.8	0.5	A
	Right Turn						
	Subtotal	80	69	86.5%	5.3	0.6	A
SB	Left Turn						
	Through	25	23	92.8%	6.3	1.0	A
	Right Turn	8	7	90.0%	3.0	1.8	A
	Subtotal	33	30	92.1%	5.6	0.9	A
EB	Left Turn	10	12	116.0%	4.8	0.8	A
	Through						
	Right Turn	150	141	93.9%	3.7	0.5	A
	Subtotal	160	152	95.3%	3.8	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		273	252	92.3%	4.4	0.5	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	30	75.9%	33.7	7.8	C
	Through	392	305	77.8%	34.1	2.4	C
	Right Turn	39	29	74.9%	29.4	10.1	C
	Subtotal	470	364	77.4%	33.7	2.0	C
SB	Left Turn	23	12	50.4%	48.8	14.0	D
	Through	137	93	67.7%	46.8	13.2	D
	Right Turn						
	Subtotal	160	104	65.3%	46.9	12.2	D
EB	Left Turn	40	33	82.0%	51.8	34.2	D
	Through	94	86	91.1%	47.1	10.2	D
	Right Turn	55	52	94.5%	41.5	24.7	D
	Subtotal	189	170	90.2%	46.4	18.4	D
WB	Left Turn	217	178	82.0%	56.0	26.4	E
	Through	14	8	60.0%	74.6	37.4	E
	Right Turn	205	169	82.5%	36.1	4.5	D
	Subtotal	436	356	81.6%	48.2	16.1	D
Total		1,255	994	79.2%	42.3	7.1	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	18	21	115.6%	39.0	12.1	D
	Through	283	280	98.8%	31.6	3.3	C
	Right Turn	5	5	104.0%	16.3	22.6	B
	Subtotal	306	306	99.9%	32.0	3.1	C
SB	Left Turn	5	4	88.0%	22.2	23.1	C
	Through	18	18	97.8%	36.7	17.6	D
	Right Turn	5	5	104.0%	21.6	21.4	C
	Subtotal	28	27	97.1%	41.5	13.4	D
EB	Left Turn	5	0	0.0%	#DIV/0!	#DIV/0!	#DIV/0!
	Through	159	138	86.5%	26.2	3.2	C
	Right Turn	29	28	95.2%	21.8	8.5	C
	Subtotal	193	165	85.6%	25.4	3.3	C
SW	Left Turn	202	168	83.0%	11.8	2.1	B
	Through	783	703	89.8%	12.5	2.1	B
	Right Turn	659	558	84.7%	24.2	7.0	C
	Subtotal	1,644	1,429	86.9%	17.0	3.5	B
Total		2,171	1,927	88.8%	20.4	2.5	C

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	432	438	101.4%	10.0	0.7	A
	Through	970	971	100.1%	6.9	0.5	A
	Right Turn	2	1	60.0%	0.0	0.0	A
	Subtotal	1,404	1,410	100.4%	7.9	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	43	28	64.2%	16.1	2.6	B
	Through	2	1	40.0%	4.1	11.0	A
	Right Turn						
	Subtotal	45	28	63.1%	16.3	2.6	B
WB	Left Turn						
	Through	1	0	0.0%	1.2	0.2	A
	Right Turn	3	2	80.0%	2.1	1.1	A
	Subtotal	4	2	60.0%	1.4	1.7	A
Total		1,453	1,441	99.2%	8.0	0.4	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	11	93.3%	5.7	5.1	A
	Through	5	8	152.0%	15.4	17.0	B
	Right Turn						
	Subtotal	17	19	110.6%	9.8	4.7	A
SB	Left Turn						
	Through	7	3	45.7%	7.8	6.6	A
	Right Turn	9	8	84.4%	4.4	3.6	A
	Subtotal	16	11	67.5%	6.7	6.3	A
EB	Left Turn						
	Through	4	7	180.0%	12.3	8.7	B
	Right Turn						
	Subtotal	4	7	180.0%	12.3	8.7	B
WB	Left Turn	20	16	78.0%	1.7	1.8	A
	Through	1,645	1,404	85.3%	3.5	1.2	A
	Right Turn	2	3	140.0%	1.6	1.4	A
	Subtotal	1,667	1,422	85.3%	3.5	1.2	A
Total		1,704	1,459	85.6%	3.7	1.3	A

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	16	106.7%	13.4	2.8	B
	Through						
	Right Turn	147	114	77.6%	8.4	1.2	A
	Subtotal	162	130	80.2%	8.9	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	155	128	82.6%	8.0	2.0	A
	Right Turn	1	2	160.0%	1.9	3.3	A
	Subtotal	156	130	83.1%	8.0	2.0	A
WB	Left Turn	242	201	83.1%	17.5	2.4	B
	Through	421	369	87.7%	13.4	1.4	B
	Right Turn						
	Subtotal	663	570	86.0%	14.8	1.5	B
Total		981	830	84.6%	12.8	0.9	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	157	151	96.1%	14.8	1.7	B
	Through						
	Right Turn	37	34	90.8%	33.4	14.6	C
	Subtotal	194	184	95.1%	18.5	3.7	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	334	215	64.3%	164.9	59.0	F
	Right Turn	7	5	68.6%	150.0	84.2	F
	Subtotal	341	220	64.4%	165.1	59.1	F
WB	Left Turn	35	20	58.3%	24.0	9.1	C
	Through	312	185	59.4%	4.1	0.5	A
	Right Turn						
	Subtotal	347	206	59.3%	6.4	2.0	A
Total		882	610	69.1%	64.9	14.0	E

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	21	75.7%	43.9	34.8	D
	Through						
	Right Turn	214	168	78.5%	125.9	46.1	F
	Subtotal	242	189	78.2%	116.7	44.5	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	333	176	53.0%	225.9	33.0	F
	Right Turn	38	22	56.8%	216.2	48.8	F
	Subtotal	371	198	53.4%	224.8	31.2	F
WB	Left Turn	124	61	49.0%	28.8	4.2	C
	Through	319	186	58.3%	9.0	1.6	A
	Right Turn						
	Subtotal	443	247	55.7%	13.9	1.4	B
Total		1,056	634	60.0%	108.8	15.3	F

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	0	0.0%	0.0	0.0	A
	Through	276	237	85.8%	127.3	46.0	F
	Right Turn	258	214	83.1%	123.6	45.2	F
	Subtotal	573	451	78.7%	125.6	45.4	F
SB	Left Turn	13	0	0.0%	23.4	15.6	C
	Through	34	16	45.9%	243.0	52.7	F
	Right Turn	286	123	43.1%	256.0	47.0	F
	Subtotal	333	139	41.7%	254.1	42.7	F
EB	Left Turn	250	152	61.0%	95.8	9.6	F
	Through	265	159	60.1%	96.5	11.7	F
	Right Turn	32	0	0.0%	0.0	0.0	A
	Subtotal	547	312	57.0%	96.2	8.4	F
WB	Left Turn	48	44	91.7%	52.5	15.4	D
	Through	118	98	82.7%	54.4	6.6	D
	Right Turn	8	0	0.0%	1.2	0.4	A
	Subtotal	174	142	81.4%	54.3	5.4	D
Total		1,627	1,043	64.1%	124.5	25.5	F

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	54	37	68.9%	23.7	5.7	C
	Through						
	Right Turn	135	113	83.9%	10.2	2.6	B
	Subtotal	189	150	79.6%	13.4	3.0	B
EB	Left Turn	146	114	78.1%	7.0	0.9	A
	Through	171	124	72.7%	5.1	1.0	A
	Right Turn						
	Subtotal	317	238	75.2%	6.0	0.9	A
WB	Left Turn						
	Through	61	60	98.4%	2.2	1.1	A
	Right Turn	29	34	118.6%	1.4	0.6	A
	Subtotal	90	94	104.9%	1.9	0.8	A
Total		596	483	81.1%	7.5	1.2	A

Intersection 56 **N 10th St/Railyards Blvd** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	70	76	108.0%	3.2	0.2	A
	Subtotal	70	76	108.0%	3.2	0.2	A
EB	Left Turn	161	114	70.8%	6.1	0.4	A
	Through						
	Right Turn						
	Subtotal	161	114	70.8%	6.1	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		231	190	82.1%	4.9	0.3	A

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	620	632	101.9%	1.3	0.2	A
	Subtotal	620	632	101.9%	1.3	0.2	A
SB	Left Turn Through Right Turn	42	26	61.0%	1.1	0.2	A
	Subtotal	42	26	61.0%	1.1	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		662	658	99.3%	1.3	0.2	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	242	214	88.6%	34.9	35.0	C
	Subtotal	242	214	88.6%	34.9	35.0	C
SB	Left Turn Through Right Turn	162	83	51.4%	1.2	0.1	A
	Subtotal	162	83	51.4%	1.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		404	298	73.7%	25.7	25.7	C

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	620	634	102.3%	0.6	0.1	A
	Subtotal	620	634	102.3%	0.6	0.1	A
SB	Left Turn Through Right Turn	42	26	61.0%	0.2	0.2	A
	Subtotal	42	26	61.0%	0.2	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		662	660	99.7%	0.6	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	446	445	99.8%	7.6	9.9	A
	Subtotal	446	445	99.8%	7.6	9.9	A
SB	Left Turn Through Right Turn	60	33	55.3%	2.5	1.5	A
	Subtotal	60	33	55.3%	2.5	1.5	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		506	478	94.5%	7.2	9.2	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	18	120.0%	26.8	9.7	C
	Through	238	211	88.6%	11.2	2.5	B
	Right Turn	3	4	133.3%	9.5	11.7	A
	Subtotal	256	233	90.9%	12.3	2.3	B
SB	Left Turn	69	76	110.1%	19.6	4.7	B
	Through	40	42	106.0%	7.5	3.3	A
	Right Turn	5	5	96.0%	2.8	3.7	A
	Subtotal	114	123	108.1%	14.8	3.0	B
EB	Left Turn	1	1	80.0%	2.3	6.8	A
	Through	1	0	40.0%	0.1	0.2	A
	Right Turn	2	1	60.0%	0.9	2.6	A
	Subtotal	4	2	60.0%	3.1	7.0	A
WB	Left Turn	33	35	105.5%	17.6	3.4	B
	Through	2	1	60.0%	3.7	3.9	A
	Right Turn	334	338	101.3%	7.9	1.4	A
	Subtotal	369	374	101.5%	8.9	1.2	A
Total		743	733	98.6%	10.9	1.0	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	47	91.8%	14.1	3.8	B
	Through	52	54	103.1%	12.4	2.9	B
	Right Turn	37	35	95.1%	12.5	4.8	B
	Subtotal	140	136	96.9%	13.5	2.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	16	21	130.0%	9.0	5.4	A
	Through	62	65	104.5%	11.0	3.0	B
	Right Turn						
	Subtotal	78	86	109.7%	10.5	3.0	B
WB	Left Turn						
	Through	349	350	100.2%	13.3	2.9	B
	Right Turn	3	2	66.7%	3.3	4.9	A
	Subtotal	352	352	99.9%	13.3	2.9	B
Total		570	573	100.5%	12.9	2.5	B

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	54	46	84.4%	18.0	4.6	B
	Right Turn						
	Subtotal	54	46	84.4%	18.0	4.6	B
SB	Left Turn						
	Through	96	101	105.0%	18.0	3.1	B
	Right Turn	21	21	101.0%	11.4	4.0	B
	Subtotal	117	122	104.3%	17.0	2.6	B
EB	Left Turn	109	96	87.7%	21.6	3.4	C
	Through						
	Right Turn	5	4	88.0%	13.5	19.0	B
	Subtotal	114	100	87.7%	21.5	3.5	C
WB	Left Turn	159	156	98.1%	13.0	2.7	B
	Through	582	577	99.1%	8.4	2.0	A
	Right Turn	200	202	101.0%	4.4	1.0	A
	Subtotal	941	935	99.3%	8.3	1.7	A
Total		1,226	1,202	98.1%	10.7	1.3	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	8	63.3%	18.0	16.8	B
	Through	504	434	86.2%	5.3	1.5	A
	Right Turn	308	247	80.3%	3.1	0.8	A
	Subtotal	824	689	83.6%	4.7	1.3	A
SB	Left Turn	5	5	96.0%	8.4	8.0	A
	Through	308	288	93.6%	13.8	2.7	B
	Right Turn	5	6	120.0%	11.7	9.7	B
	Subtotal	318	299	94.1%	13.8	2.7	B
EB	Left Turn	5	2	40.0%	7.1	12.7	A
	Through	15	14	90.7%	10.3	5.6	B
	Right Turn	5	5	104.0%	3.9	4.4	A
	Subtotal	25	21	83.2%	9.8	4.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,167	1,009	86.5%	7.5	1.2	A

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	320	246	77.0%	21.0	1.4	C
	Right Turn	139	130	93.5%	7.3	1.0	A
	Subtotal	459	376	82.0%	16.3	1.4	B
SB	Left Turn	5	4	72.0%	6.2	7.3	A
	Through	50	49	98.4%	7.0	2.6	A
	Right Turn						
	Subtotal	55	53	96.0%	7.4	2.6	A
EB	Left Turn	15	10	69.3%	12.4	8.9	B
	Through	297	242	81.6%	8.7	0.8	A
	Right Turn	16	13	80.0%	6.1	4.1	A
	Subtotal	328	266	81.0%	8.7	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		842	695	82.5%	12.7	1.1	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	29	26	88.3%	6.9	2.9	A
	Through	78	85	109.2%	7.2	1.9	A
	Right Turn						
	Subtotal	107	111	103.6%	7.1	1.4	A
EB	Left Turn	138	131	94.8%	12.7	2.1	B
	Through	275	219	79.6%	11.2	1.4	B
	Right Turn	28	27	95.7%	5.2	1.7	A
	Subtotal	441	376	85.4%	11.2	1.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		548	487	88.9%	10.3	0.9	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	520	536	103.1%	9.3	1.5	A
	Right Turn	56	52	92.9%	5.6	1.1	A
	Subtotal	576	588	102.1%	9.0	1.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	67	55	81.8%	5.8	1.3	A
	Through	154	124	80.3%	5.9	1.1	A
	Right Turn						
	Subtotal	221	178	80.7%	5.9	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		797	766	96.2%	8.3	1.1	A

Intersection 26 **Jiboom St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	16	14	85.0%	34.2	13.9	C
	Through						
	Right Turn	346	359	103.8%	31.7	4.1	C
	Subtotal	362	373	103.0%	31.8	4.4	C
EB	Left Turn	524	434	82.8%	106.0	29.4	F
	Through	76	64	84.2%	91.5	33.8	F
	Right Turn						
	Subtotal	600	498	83.0%	104.1	29.9	F
WB	Left Turn						
	Through	79	71	90.1%	30.2	7.9	C
	Right Turn	333	312	93.6%	9.9	1.6	A
	Subtotal	412	383	92.9%	13.8	1.9	B
Total		1,374	1,254	91.2%	54.7	11.1	D

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	514	412	80.2%	52.4	34.6	D
	Through	602	468	77.7%	7.1	0.6	A
	Right Turn						
	Subtotal	1,116	880	78.9%	28.5	16.5	C
SB	Left Turn						
	Through						
	Right Turn	457	441	96.5%	25.4	11.4	C
	Subtotal	457	441	96.5%	25.4	11.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	961	928	96.6%	7.5	1.3	A
	Right Turn	193	192	99.3%	7.5	2.4	A
	Subtotal	1,154	1,120	97.1%	7.5	1.2	A
Total		2,727	2,441	89.5%	18.1	6.3	B

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	169	146	86.6%	16.5	1.8	B
	Through	384	300	78.0%	15.5	1.5	B
	Right Turn						
	Subtotal	553	446	80.7%	15.8	1.3	B
SB	Left Turn						
	Through	5	4	88.0%	9.9	7.1	A
	Right Turn	61	57	93.1%	5.6	0.6	A
	Subtotal	66	61	92.7%	6.1	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	12	155.0%	6.3	2.7	A
	Through	924	917	99.3%	12.4	1.5	B
	Right Turn	75	76	101.9%	18.2	4.3	B
	Subtotal	1,007	1,006	99.9%	12.8	1.6	B
Total		1,626	1,513	93.1%	13.4	1.3	B

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	101	104	103.4%	4.6	1.3	A
	Right Turn	5	7	136.0%	6.3	6.3	A
	Subtotal	106	111	104.9%	4.8	1.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	31	27	86.5%	6.8	2.5	A
	Through	1,002	997	99.5%	8.0	1.1	A
	Right Turn						
	Subtotal	1,033	1,024	99.1%	8.0	1.2	A
Total		1,139	1,135	99.7%	7.6	1.1	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	153	162	105.9%	11.6	2.4	B
	Through	457	460	100.6%	10.5	1.2	B
	Right Turn						
	Subtotal	610	622	101.9%	10.7	1.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	880	860	97.7%	10.1	1.0	B
	Right Turn	119	126	105.5%	9.8	3.4	A
	Subtotal	999	986	98.7%	10.0	1.2	B
Total		1,609	1,607	99.9%	10.3	1.2	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	4	72.0%	71.6	66.8	E
	Through	1,172	909	77.6%	98.1	24.8	F
	Right Turn	20	13	64.0%	44.7	21.0	D
	Subtotal	1,197	926	77.3%	97.2	24.6	F
SB	Left Turn	192	126	65.6%	198.8	39.9	F
	Through	181	123	67.8%	197.8	35.5	F
	Right Turn						
	Subtotal	373	249	66.7%	198.0	34.8	F
EB	Left Turn	5	5	96.0%	44.3	44.3	D
	Through	436	416	95.4%	54.3	21.9	D
	Right Turn	101	96	95.0%	31.0	4.2	C
	Subtotal	542	517	95.4%	50.1	18.5	D
NB	Left Turn						
	Through						
	Right Turn	68	66	97.1%	9.1	2.5	A
	Subtotal	68	66	97.1%	9.1	2.5	A
Total		2,180	1,757	80.6%	94.1	16.8	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	294	279	94.8%	30.9	26.1	C
	Right Turn	196	189	96.5%	25.2	23.7	C
	Subtotal	490	468	95.5%	28.5	24.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	822	611	74.4%	85.1	17.2	F
	Through	1,025	822	80.2%	42.7	10.3	D
	Right Turn	31	30	96.8%	29.1	7.9	C
	Subtotal	1,878	1,463	77.9%	59.9	12.1	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,368	1,931	81.5%	52.3	12.0	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	33	29	87.3%	7.3	3.2	A
	Through	99	102	102.6%	10.1	2.6	B
	Right Turn						
	Subtotal	132	130	98.8%	9.5	2.5	A
EB	Left Turn						
	Through	644	556	86.3%	26.9	2.4	C
	Right Turn	107	86	80.7%	10.2	2.8	B
	Subtotal	751	642	85.5%	24.6	2.5	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		883	773	87.5%	22.1	2.2	C

Intersection 34 **C St/3rd St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	60	94.4%	31.0	6.7	C
	Through	92	85	92.6%	15.9	2.9	B
	Right Turn	279	270	96.9%	5.7	0.9	A
	Subtotal	435	416	95.6%	11.4	1.8	B
SB	Left Turn	56	53	95.0%	30.9	5.5	C
	Through	54	45	83.0%	15.5	4.2	B
	Right Turn	11	12	105.5%	2.1	1.6	A
	Subtotal	121	110	90.6%	21.4	3.3	C
EB	Left Turn	7	8	108.6%	29.8	15.6	C
	Through	240	256	106.8%	21.1	3.0	C
	Right Turn	33	34	101.8%	8.0	2.3	A
	Subtotal	280	298	106.3%	20.1	2.5	C
WB	Left Turn	121	128	105.5%	28.1	3.6	C
	Through	226	224	98.9%	19.9	3.3	B
	Right Turn	66	73	110.9%	5.6	1.7	A
	Subtotal	413	424	102.8%	20.0	2.9	B
Total		1,249	1,248	99.9%	17.2	1.6	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	7	80.0%	24.8	18.1	C
	Through	4	4	110.0%	13.0	13.2	B
	Right Turn	35	34	97.1%	5.5	1.1	A
	Subtotal	48	46	95.0%	10.1	3.1	B
SB	Left Turn	8	7	85.0%	20.6	14.4	C
	Through						
	Right Turn	2	3	140.0%	2.4	2.6	A
	Subtotal	10	10	96.0%	18.3	12.1	B
EB	Left Turn	3	3	93.3%	15.8	16.0	B
	Through	557	550	98.7%	5.5	1.8	A
	Right Turn	15	20	130.7%	4.3	2.5	A
	Subtotal	575	572	99.5%	5.5	1.8	A
WB	Left Turn	16	19	120.0%	15.6	5.8	B
	Through	402	404	100.6%	5.1	0.6	A
	Right Turn	7	7	97.1%	4.3	3.0	A
	Subtotal	425	430	101.3%	5.5	0.5	A
Total		1,058	1,058	100.0%	5.9	1.0	A

Intersection 47 **Jibboom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	255	213	83.6%	13.7	2.3	B
	Right Turn	602	524	87.0%	10.3	1.4	B
	Subtotal	857	737	86.0%	11.3	1.5	B
SB	Left Turn	230	206	89.4%	52.5	22.9	D
	Through	234	250	107.0%	7.6	5.9	A
	Right Turn						
	Subtotal	464	456	98.3%	27.8	13.3	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	128	123	95.9%	41.0	9.1	D
	Through						
	Right Turn	36	40	112.2%	16.2	6.9	B
	Subtotal	164	163	99.5%	34.8	9.5	C
Total		1,485	1,356	91.3%	19.6	4.8	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	345	296	85.9%	10.8	2.8	B
	Right Turn	164	136	82.9%	6.9	2.0	A
	Subtotal	509	432	85.0%	9.5	2.5	A
SB	Left Turn	7	6	85.7%	15.7	10.8	B
	Through	35	36	102.9%	6.9	1.4	A
	Right Turn						
	Subtotal	42	42	100.0%	8.5	1.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	283	262	92.4%	13.1	0.9	B
	Through						
	Right Turn	275	268	97.6%	7.7	0.6	A
	Subtotal	558	530	95.0%	10.4	0.7	B
Total		1,109	1,004	90.6%	10.0	1.2	A

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	125	100	80.0%	5.0	0.8	A
	Through	195	148	75.9%	3.6	0.7	A
	Right Turn	16	12	72.5%	2.3	0.6	A
	Subtotal	336	260	77.3%	4.1	0.2	A
SB	Left Turn	5	6	128.0%	6.0	4.9	A
	Through	9	9	97.8%	4.7	4.4	A
	Right Turn	46	51	110.4%	4.5	2.3	A
	Subtotal	60	66	110.0%	4.9	2.1	A
EB	Left Turn	73	53	72.3%	44.5	11.6	D
	Through	93	83	89.0%	12.1	2.3	B
	Right Turn	5	4	72.0%	1.9	1.9	A
	Subtotal	171	139	81.4%	23.8	4.4	C
WB	Left Turn	38	39	103.2%	16.1	2.0	B
	Through	387	380	98.3%	18.5	3.0	B
	Right Turn	178	169	95.1%	14.9	3.0	B
	Subtotal	603	589	97.6%	17.3	2.8	B
Total		1,170	1,054	90.1%	14.2	2.0	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	2	66.7%	22.8	31.4	C
	Through	219	213	97.4%	33.0	3.2	C
	Right Turn	43	44	103.3%	4.2	1.4	A
	Subtotal	265	260	98.0%	28.2	2.6	C
SB	Left Turn	40	41	103.0%	12.6	8.9	B
	Through	129	138	107.3%	20.1	6.0	C
	Right Turn	42	49	116.2%	8.7	6.3	A
	Subtotal	211	228	108.2%	16.6	5.3	B
EB	Left Turn	120	112	93.3%	44.1	5.2	D
	Through	182	167	91.6%	33.1	4.0	C
	Right Turn	17	14	84.7%	15.0	15.9	B
	Subtotal	319	293	91.9%	36.6	2.5	D
WB	Left Turn	50	51	101.6%	52.2	9.9	D
	Through	192	196	102.3%	42.7	7.5	D
	Right Turn	52	56	107.7%	6.1	1.1	A
	Subtotal	294	303	103.1%	37.4	4.6	D
Total		1,089	1,084	99.6%	30.6	1.6	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	5	86.7%	9.8	7.0	A
	Through	5	6	112.0%	16.3	14.8	B
	Right Turn	24	25	105.0%	3.0	0.7	A
	Subtotal	35	36	102.9%	6.7	2.4	A
SB	Left Turn	42	42	100.0%	13.4	5.0	B
	Through	11	13	116.4%	14.0	10.8	B
	Right Turn	11	13	116.4%	2.6	1.9	A
	Subtotal	64	68	105.6%	11.6	4.1	B
EB	Left Turn	9	9	102.2%	21.0	14.1	C
	Through	254	241	95.0%	8.7	3.2	A
	Right Turn	2	1	60.0%	0.6	1.6	A
	Subtotal	265	252	94.9%	9.3	3.0	A
WB	Left Turn	18	17	95.6%	20.6	11.1	C
	Through	277	290	104.7%	8.6	2.4	A
	Right Turn	30	36	120.0%	4.3	2.6	A
	Subtotal	325	343	105.6%	8.6	2.3	A
Total		689	698	101.4%	9.1	2.1	A

Intersection 17 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	89	84	94.4%	4.1	1.2	A
	Through	684	683	99.9%	3.7	0.6	A
	Right Turn	41	35	85.9%	1.5	1.0	A
	Subtotal	814	802	98.6%	3.7	0.5	A
EB	Left Turn						
	Through	68	74	108.8%	21.5	6.1	C
	Right Turn	6	6	100.0%	4.5	3.9	A
	Subtotal	74	80	108.1%	20.2	5.6	C
WB	Left Turn	24	22	91.7%	19.6	6.1	B
	Through						
	Right Turn						
	Subtotal	24	22	91.7%	19.6	6.1	B
Total		912	904	99.2%	5.5	0.6	A

Intersection 20 **12th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	73	76	104.7%	11.9	2.0	B
	Through	607	600	98.8%	9.8	1.2	A
	Right Turn	34	32	92.9%	5.4	3.5	A
	Subtotal	714	708	99.1%	9.8	1.1	A
EB	Left Turn						
	Through	73	76	104.1%	10.3	2.3	B
	Right Turn	32	34	107.5%	6.5	2.4	A
	Subtotal	105	110	105.1%	9.1	2.0	A
WB	Left Turn	7	6	91.4%	16.1	11.5	B
	Through	325	337	103.8%	13.8	2.5	B
	Right Turn						
	Subtotal	332	344	103.5%	13.9	2.6	B
Total		1,151	1,162	100.9%	11.0	1.1	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	2,725	75	15	150	31	150	34	0%	0%
	Through/Right	2,725	75	11	100	22	100	22	0%	0%
SB	Left Turn	325	250	27	325	39	325	32	0%	0%
	Left/Through	1,500	275	37	375	59	375	100	2%	0%
	Right Turn	325	125	40	225	114	250	108	0%	0%
WB	Left Turn	1,275	50	7	100	19	100	24	0%	0%
	Through	275	50	13	100	17	125	23	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	275	100	16	175	33	175	40	0%	0%
	Through	325	125	38	225	87	225	112	0%	1%
NB	Left/Through	325	50	13	100	18	100	24	0%	0%
	Right Turn	1,175	200	21	275	51	275	47	0%	0%
WB	Through	225	75	10	125	27	125	41	0%	0%
0										

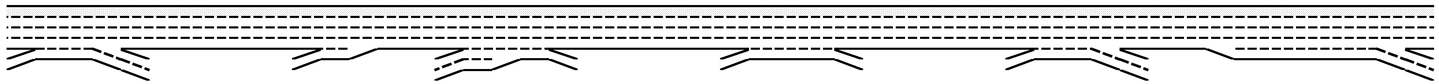
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	175	44	250	92	250	89	0%	0%
	Through	600	150	43	225	89	225	84	0%	0%
	Through/Right	600	75	18	125	22	125	25	0%	0%
NB	Right Turn	1,025	25	2	25	11	25	15	0%	0%
NE	Shared	975	775	120	1,050	104	1,000	17	0%	29%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turn	975	25	0	25	0	25	0	0%	0%
	Right Turns	350	150	24	350	47	350	33	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

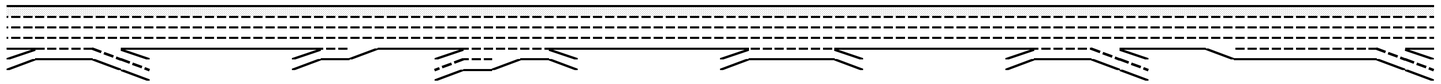
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	1,340	1,900	1,158	1,175	800	2,100
Accel Length			425							
Decel Length										2,100
Mainline Volume	6,098	5,479	5,479	6,001	5,741	5,741	5,638	5,638	5,421	5,421
On Ramp Volume	578		522	568		505		570		
Off Ramp Volume	1,197			828		608		787		1,751
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in Entering General Purpose Lanes (GP)										
Volume (vph)	6,098	5,479	5,479	6,001	5,741	5,741	5,638	5,638	5,421	5,421
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	7,101	6,380	6,380	6,988	6,685	6,685	6,565	6,565	6,312	6,312
Flow (pcphpl)	1,775	1,595	1,595	1,747	1,671	1,671	1,641	1,641	1,578	1,262
Calculate Free Flow Speed in Entering GP Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes										
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.76	0.68	0.68	0.74	0.71	0.71	0.70	0.70	0.67	0.54
Speed (mph)	63.0	64.5	64.5	63.3	64.0	64.0	64.2	64.2	64.6	65.0
Density (pcphpl)	28.2	24.7	24.7	27.6	26.1	26.1	25.6	25.6	24.4	19.4
LOS	D	C	C	D	D	D	C	C	C	C
Calculate Operations for Segment GP Lanes										
Flow (pcph)	7,783		6,996	7,628		7,342		7,230		
Lanes	5	4	4	5	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750		11,750		11,750		
v/c ratio	0.66		0.74	0.65		0.62		0.62		
Flow Rate (pcphpl)	1,557		1,749	1,526		1,468		1,446		
Speed (mph)	64.7		63.3	64.8		64.9		65.0		
Density (pcphpl)	24.1		27.6	23.6		22.6		22.3		
LOS	C		D	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

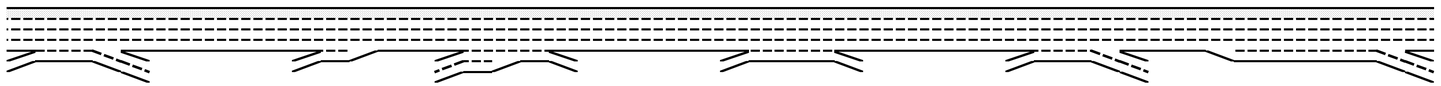
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes										
Flow (pcph)	6,370			6,662		6,686		6,371		4,357
Lanes	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400		9,400		9,400		9,400
v/c ratio	0.68			0.71		0.71		0.68		0.46
Flow Rate (pcphpl)	1,593			1,666		1,671		1,593		1,089
Speed (mph)	64.5			64.0		64.0		64.5		65.0
Density (pcphpl)	24.7			26.0		26.1		24.7		16.8
LOS	C			D		D		C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

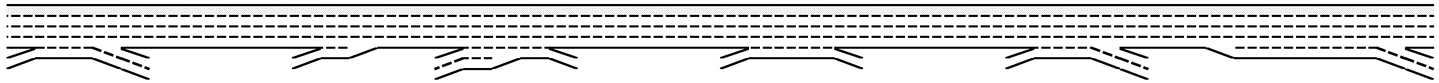
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes										
Volume (vph)										
PHF										
Lanes										
Terrain										
Grade %										
Grade Length (mi)										
Truck & Bus %										
RV %										
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P										
Flow (pcph)										
Flow Rate (pcphpl)										
Calculate Operations in Express Lanes										
FFS	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)										
v/c ratio										
Calculate On Ramp Flow Rate										
Volume (vph)	578		522	568		505		570		
PHF	0.86		0.86	0.9		0.78		0.87		
Lanes	1		1	2		1		1		
Terrain	Level		Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00		1.00		1.00		
Flow (pcph)	682		616	641		657		665		
Flow Rate (pcphpl)	682		616	320		657		665		
Calculate On Ramp Roadway Operations										
Ramp Type	Right		Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200		2,100		2,100		
Ramp v/c ratio	0.32		0.29	0.15		0.31		0.32		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

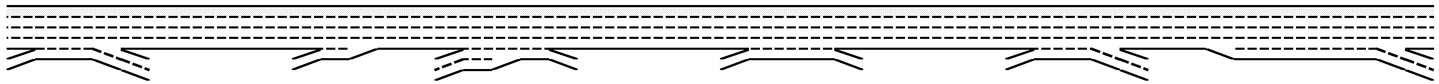
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate										
Volume (vph)	1,197			828		608		787		1,751
PHF	0.86			0.87		0.94		0.93		0.94
Lanes	2			1		1		2		2
Terrain	Level			Level		Level		Level		Level
Grade %	0.0%			0.0%		0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00		0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		10.0%
RV %	0.0%			0.0%		0.0%		0.0%		0.0%
E_T	1.5			1.5		1.5		1.5		1.5
E_R	1.2			1.2		1.2		1.2		1.2
f_{HV}	0.985			0.985		0.985		0.985		0.952
f_P	1.00			1.00		1.00		1.00		1.00
Flow (pcph)	1,413			966		657		859		1,956
Flow Rate (pcphpl)	706			966		657		429		978
Calculate Off Ramp Roadway Operations										
Ramp Type	Right			Right		Right		Right		Major
Ramp Speed	45			45		45		45		60
Ramp Capacity (pcph)	4,200			2,100		2,100		4,200		4,600
Ramp v/c ratio	0.34			0.46		0.31		0.20		0.43
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type										
Up Distance										
Up Flow (pcph)										
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)			6,380							
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)			0.589							
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}			0.141							
v_{12} (pcph)			898							
v_3 (pcph)										
v_{34} (pcph)			5,482							
v_{12a} (pcph)			2,552							
v_{R12a} (pcph)			3,168							
Speed Index			0.38							
Area Speed			56.4							
Outer Lanes Volume			1,914							
Outer Lanes Speed			59.9							
Segment Speed			58.3							
v/c ratio			0.69							
Density			27.2							
LOS			C							

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



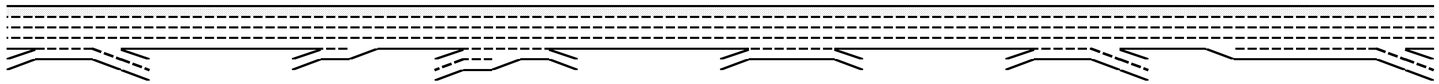
Key
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)										
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)										
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}										
v_{12} (pcph)										
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)										
Speed Index										
Area Speed										
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed										
v/c ratio										
Density										22.1
LOS										C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to Off Flow (pcph)										
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	3.0%			3.0%		3.0%		3.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.985			0.985		0.985		0.985		
f_P	1.00			1.00		1.00		1.00		
On to ML Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

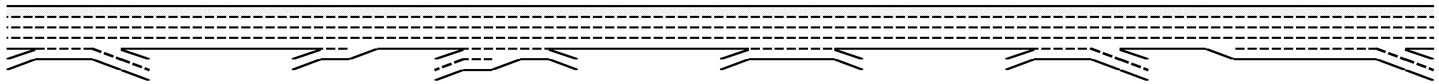
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
ML to Off Flow (pcph)										
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)										
PHF	0.95			0.95		0.95		0.95		
Terrain	Level			Level		Level		Level		
Grade %	0.0%			0.0%		0.0%		0.0%		
Grade Length (mi)	0.00			0.00		0.00		0.00		
Truck & Bus %	6.0%			6.0%		6.0%		6.0%		
RV %	0.0%			0.0%		0.0%		0.0%		
E_T	1.5			1.5		1.5		1.5		
E_R	1.2			1.2		1.2		1.2		
f_{HV}	0.971			0.971		0.971		0.971		
f_P	1.00			1.00		1.00		1.00		
GP to GP Flow (pcph)										

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9	10



Key

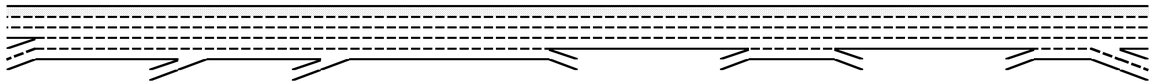
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations										
Type										
Length										
Segment Lanes										
Weave Lanes										
Weave Flow (pcph)										
Non-Weave Flow										
Segment Flow										
Max Weave Length										
Length Check										
Ideal Weave Capacity										
f_{HV}										
f_P										
Capacity Condition 1										
Capacity Condition 2										
v/c ratio										
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Density										
LOS										
Summarize Segment Operations										
Segment v/c ratio		0.68	0.69		0.71		0.70		0.67	
Segment Density		24.7	27.2		26.1		25.6		24.4	22.1
Segment LOS		C	C		D		C		C	C
Over Capacity										
Type	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

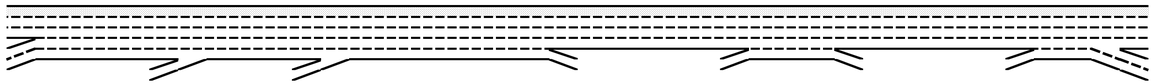
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Define Freeway Segment								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	2,000	1,050	
Accel Length		100	275					
Decel Length				750				
Mainline Volume	2,524	4,050	4,342	4,522	4,214	4,214	3,558	3,558
On Ramp Volume	1,526	292	180			615		322
Off Ramp Volume				308		1,271		450
Express Lane Volume								
EL On Ramp Volume								
EL Off Ramp Volume								
Calculate Flow Rate in Entering General Purpose Lanes (GP)								
Volume (vph)	2,524	4,050	4,342	4,522	4,214	4,214	3,558	3,558
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	2,939	4,716	5,056	5,266	4,907	4,907	4,143	4,143
Flow (pcphpl)	980	943	1,011	1,053	1,227	1,227	1,036	1,036
Calculate Free Flow Speed in Entering GP Lanes								
Lane Width (ft)								
Shoulder Width								
TRD								
f_{LW}								
f_{LC}								
Calculated FFS								
Measured FFS								
FFS Curve	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes								
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400
v/c ratio	0.42	0.40	0.43	0.45	0.52	0.52	0.44	0.44
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	15.1	14.5	15.6	16.2	18.9	18.9	15.9	15.9
LOS	B	B	B	B	C	C	B	B
Calculate Operations for Segment GP Lanes								
Flow (pcph)	4,870	5,042	5,261			5,601		4,573
Lanes	5	5	5	5	4	5	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750		11,750
v/c ratio	0.41	0.43	0.45			0.48		0.39
Flow Rate (pcphpl)	974	1,008	1,052			1,120		915
Speed (mph)	65.0	65.0	65.0			65.0		65.0
Density (pcphpl)	15.0	15.5	16.2			17.2		14.1
LOS	B	B	B			B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

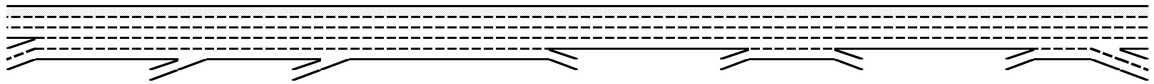
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes								
Flow (pcph)				4,933		4,183		4,042
Lanes	5	5	5	4	4	4	4	4
Capacity (pcph)				9,400		9,400		9,400
v/c ratio				0.52		0.44		0.43
Flow Rate (pcphpl)				1,233		1,046		1,011
Speed (mph)				65.0		65.0		65.0
Density (pcphpl)				19.0		16.1		15.5
LOS				C		B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

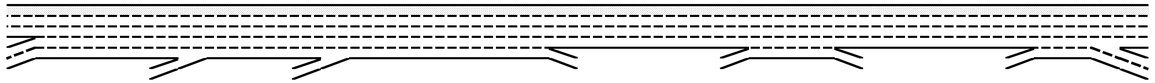


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Flow Rate in Express Lanes								
Volume (vph)								
PHF								
Lanes								
Terrain								
Grade %								
Grade Length (mi)								
Truck & Bus %								
RV %								
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P								
Flow (pcph)								
Flow Rate (pcphpl)								
Calculate Operations in Express Lanes								
FFS	65	65	65	65	65	65	65	65
Capacity (pcph)								
v/c ratio								
Calculate On Ramp Flow Rate								
Volume (vph)	1,526	292	180			615		322
PHF	0.83	0.91	0.89			0.9		0.76
Lanes	2	1	1			1		1
Terrain	Level	Level	Level			Level		Level
Grade %	0.0%	0.0%	0.0%			0.0%		0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00		0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%		3.0%
RV %	0.0%	0.0%	0.0%			0.0%		0.0%
E_T	1.5	1.5	1.5			1.5		1.5
E_R	1.2	1.2	1.2			1.2		1.2
f_{HV}	0.952	0.985	0.985			0.985		0.985
f_P	1.00	1.00	1.00			1.00		1.00
Flow (pcph)	1,930	326	205			694		430
Flow Rate (pcphpl)	965	326	205			694		430
Calculate On Ramp Roadway Operations								
Ramp Type	Major	Right	Right			Right		Right
Ramp Speed (mph)	60	45	45			45		45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100		2,100
Ramp v/c ratio	0.42	0.16	0.10			0.33		0.20

Location	1	2	3	4	5	6	7	8



Key

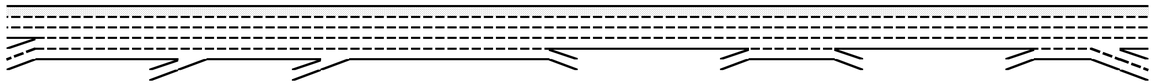
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Off Ramp Flow Rate								
Volume (vph)				308		1,271		450
PHF				0.94		0.91		0.86
Lanes				1		1		2
Terrain				Level		Level		Level
Grade %				0.0%		0.0%		0.0%
Grade Length (mi)				0.00		0.00		0.00
Truck & Bus %				3.0%		3.0%		3.0%
RV %				0.0%		0.0%		0.0%
E_T				1.5		1.5		1.5
E_R				1.2		1.2		1.2
f_{HV}				0.985		0.985		0.985
f_P				1.00		1.00		1.00
Flow (pcph)				333		1,418		531
Flow Rate (pcphpl)				333		1,418		266
Calculate Off Ramp Roadway Operations								
Ramp Type				Right		Right		Right
Ramp Speed				45		45		45
Ramp Capacity (pcph)				2,100		2,100		4,200
Ramp v/c ratio				0.16		0.68		0.13
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps								
Up Type								
Up Distance								
Up Flow (pcph)								
Down Type								
Down Distance								
Down Flow (pcph)								
Calculate Merge Influence Area Operations								
Effective v_P (pcph)		3,678	3,944					
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FM} (Eqn 13-3)		0.580	0.585					
P_{FM} (Eqn 13-4)								
P_{FM} (Eqn 13-5)								
P_{FM}		0.177	0.192					
v_{12} (pcph)		651	758					
v_3 (pcph)								
v_{34} (pcph)		3,027	3,186					
v_{12a} (pcph)		1,471	1,577					
v_{R12a} (pcph)		1,797	1,783					
Speed Index		0.34	0.32					
Area Speed		57.3	57.7					
Outer Lanes Volume		1,104	1,183					
Outer Lanes Speed		62.8	62.5					
Segment Speed		60.2	60.3					
v/c ratio		0.39	0.39					
Density		18.7	17.6					
LOS		B	B					

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

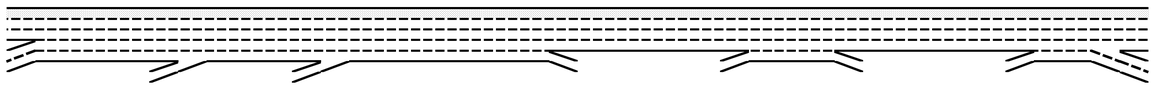
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Diverge Influence Area Operations								
Effective v_P (pcph)				4,739				
Up Ramp L_{EQ}								
Down Ramp L_{EQ}								
P_{FD} (Eqn 13-9)				0.626				
P_{FD} (Eqn 13-10)								
P_{FD} (Eqn 13-11)								
P_{FD}				0.436				
v_{12} (pcph)				2,254				
v_3 (pcph)								
v_{34} (pcph)				2,485				
v_{12a} (pcph)				2,254				
Speed Index				0.33				
Area Speed				57.5				
Outer Lanes Volume				1,243				
Outer Lanes Speed				70.4				
Segment Speed				63.6				
v/c ratio				0.51				
Density				16.9				
LOS				B				
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments								
On to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to Off Flow (pcph)								
Calculate On Ramp to Mainline Flow Rate for Weave Segments								
On to ML Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						3.0%		3.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.985		0.985
f_P						1.00		1.00
On to ML Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8



Key

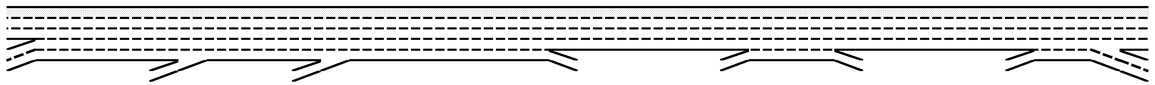
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments								
ML to Off Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
ML to Off Flow (pcph)								
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments								
GP to GP Volume (vph)								
PHF						0.95		0.95
Terrain						Level		Level
Grade %						0.0%		0.0%
Grade Length (mi)						0.00		0.00
Truck & Bus %						6.0%		6.0%
RV %						0.0%		0.0%
E_T						1.5		1.5
E_R						1.2		1.2
f_{HV}						0.971		0.971
f_P						1.00		1.00
GP to GP Flow (pcph)								

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8

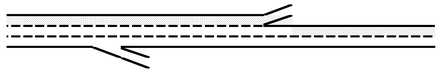


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Between Richards Blvd Ramps	Richards Blvd to J St
Calculate Weave Segment Operations								
Type								
Length								
Segment Lanes								
Weave Lanes								
Weave Flow (pcph)								
Non-Weave Flow								
Segment Flow								
Max Weave Length								
Length Check								
Ideal Weave Capacity								
f_{HV}								
f_P								
Capacity Condition 1								
Capacity Condition 2								
v/c ratio								
Interchange Density								
Lane Changes On to ML								
Lane Changes ML to Off								
Lane Changes On to Off								
Min Lane Change Rate								
Weave LC Rate								
Non-Weave LC Rate 1								
Non-Weave LC Rate 2								
Non-Weave LC Rate 3								
Segment LC Rate								
Weave Intensity Factor								
Weave Speed								
Non-Weave Speed								
Segment Speed								
Density								
LOS								
Summarize Segment Operations								
Segment v/c ratio	0.41	0.39	0.39	0.51	0.52		0.44	
Segment Density	15.0	18.7	17.6	16.9	18.9		15.9	
Segment LOS	B	B	B	B	C		B	
Over Capacity								
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Basic	Weave

Location	1	2	3

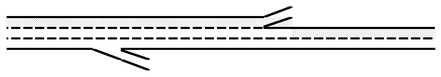


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	1,811	1,619	1,325
On Ramp Volume			
Off Ramp Volume	192	294	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	1,811	1,619	1,325
PHF	0.77	0.77	0.77
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,387	2,134	1,747
Flow (pcphpl)	796	711	873
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.34	0.30	0.36
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	12.2	10.2	12.5
LOS	B	A	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

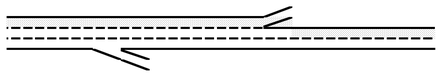


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,134	1,747	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.30	0.36	
Flow Rate (pcphpl)	711	873	
Speed (mph)	65.0	70.0	
Density (pcphpl)	10.9	12.5	
LOS	A	B	

Location	1	2	3



Key

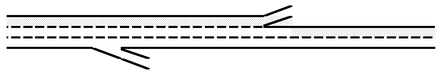
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3

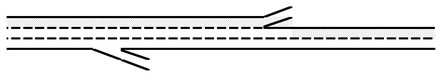


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	192	294	
PHF	0.77	0.77	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	253	388	
Flow Rate (pcphpl)	253	388	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.12	0.19	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		253	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

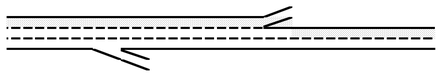


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,387		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.689		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.689		
v_{12} (pcph)	1,723		
v_3 (pcph)	664		
v_{34} (pcph)			
v_{12a} (pcph)	1,723		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	664		
Outer Lanes Speed	71.3		
Segment Speed	60.9		
v/c ratio	0.39		
Density	17.7		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

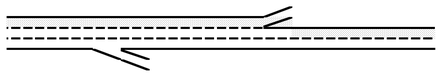


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

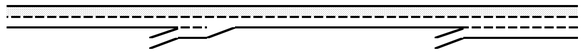
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.39	0.30	0.36
Segment Density	17.7	10.2	12.5
Segment LOS	B	A	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Baseline Plus MLS Stadium Conditions
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

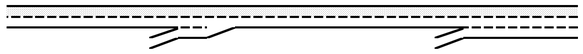


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,799	2,799	3,045	3,045
On Ramp Volume		246		416
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,799	2,799	3,045	3,045
PHF	0.77	0.77	0.77	0.77
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,690	3,690	4,014	4,014
Flow (pcphpl)	1,845	1,845	2,007	1,338
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.82	0.79	0.85	0.57
Speed (mph)	55.0	62.2	59.8	65.0
Density (pcphpl)	33.6	29.7	33.6	20.6
LOS	D	D	D	C
Operations for Segment GP Lanes				
Flow (pcph)		4,014		4,562
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.85		0.65
Flow Rate (pcphpl)		2,007		1,521
Speed (mph)		59.8		64.8
Density (pcphpl)		33.6		23.5
LOS		D		C

Location	1	2	3	4

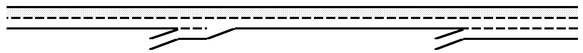


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

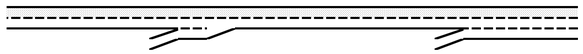


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		246		416
PHF		0.77		0.77
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		324		548
Flow Rate (pcphpl)		324		548
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.15		0.26

Location	1	2	3	4

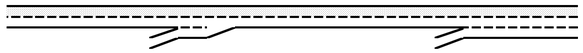


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,690		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,690		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,690		
v_{R12a} (pcph)		4,014		
Speed Index		0.47		
Area Speed		54.2		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		54.2		
v/c ratio		0.87		
Density		31.9		
LOS		D		

Location	1	2	3	4

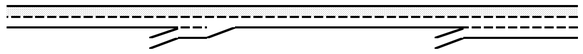


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

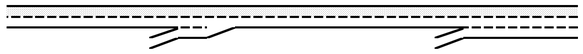


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

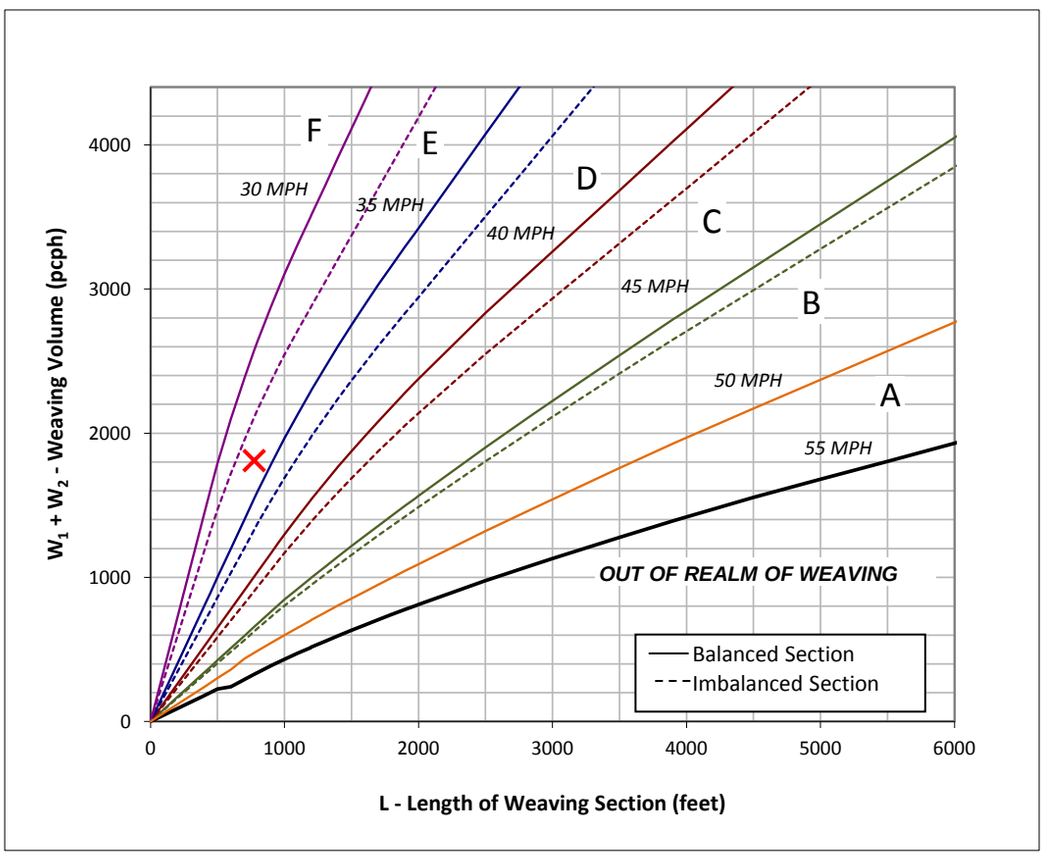
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.82	0.87	0.85	0.65
Segment Density	33.6	31.9	33.6	23.5
Segment LOS	D	D	D	C
Over Capacity				

Leisch Method for Weaving Analysis

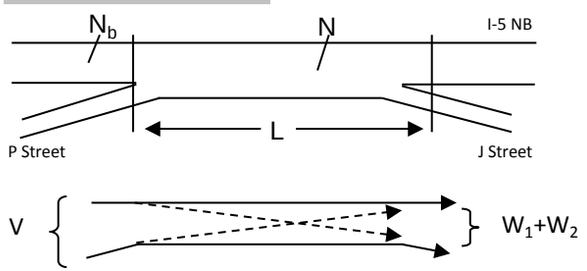
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,676	Volume (vph)*	578	Volume (vph)*	1,197
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,996	Volume (pcph)	590	Volume (pcph)	1,221



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	33.7
4. Weaving Intensity Factor (k)	2.85
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,617
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

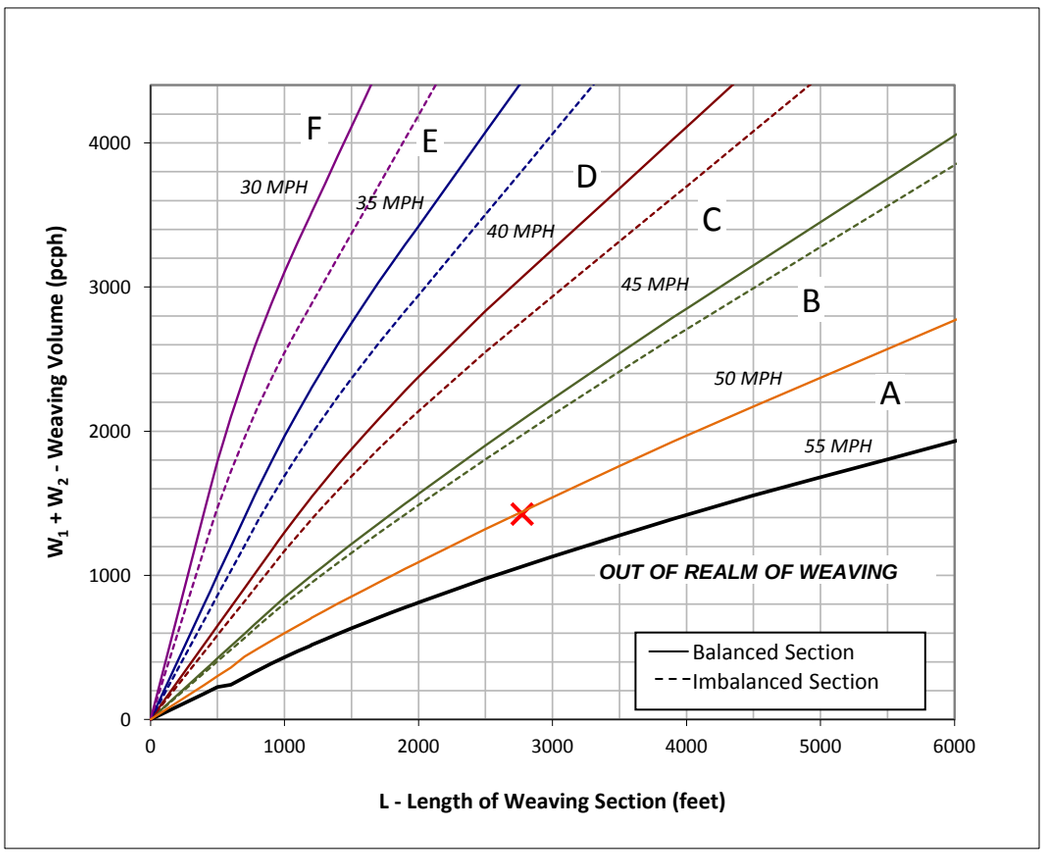
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,569	Volume (vph)*	568	Volume (vph)*	828
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,884	Volume (pcph)	579	Volume (pcph)	845



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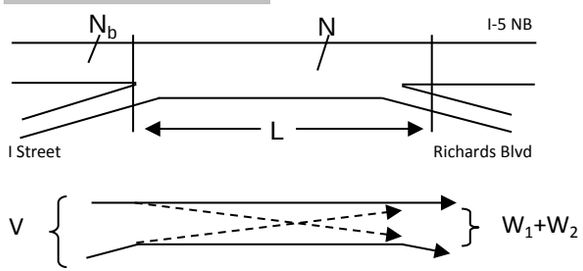


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **50.2**
4. Weaving Intensity Factor (k) **0.95**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,371**
6. Level of Service (LOS) **C**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

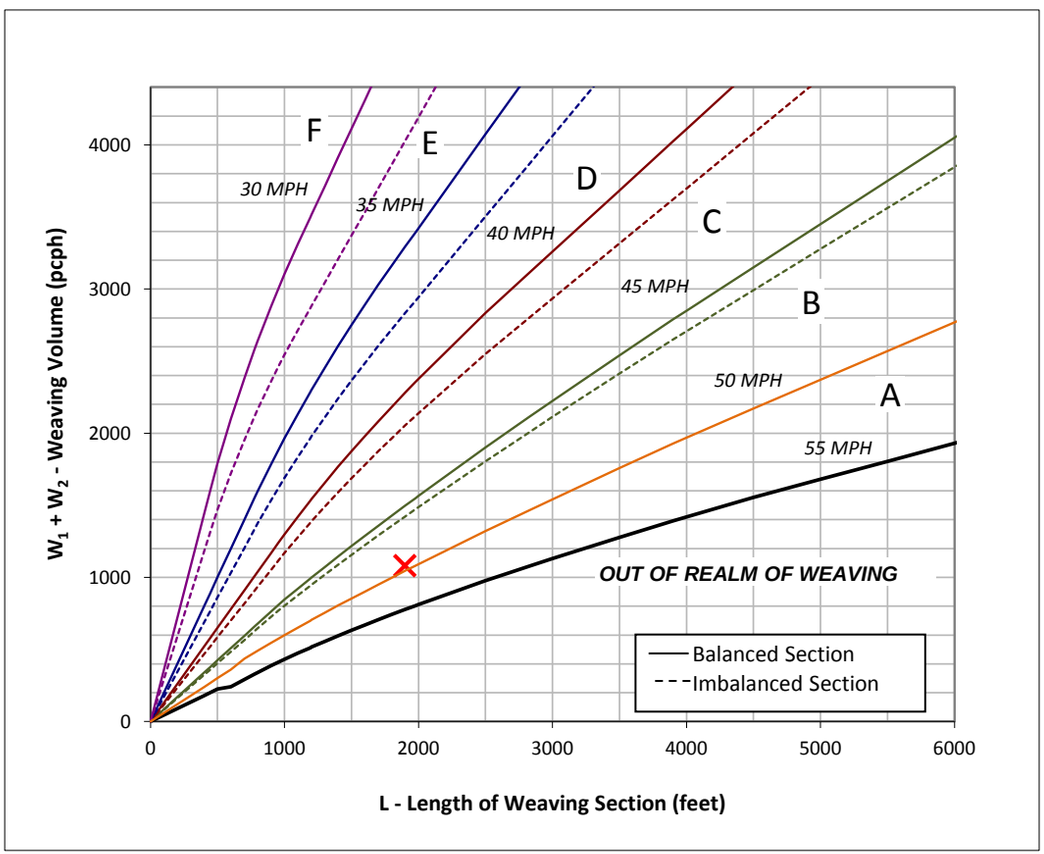
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,246	Volume (vph)*	481	Volume (vph)*	579
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,546	Volume (pcph)	491	Volume (pcph)	591



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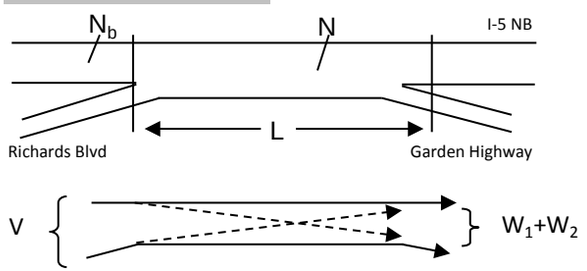


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	49.5
4. Weaving Intensity Factor (k)	1.03
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,312
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

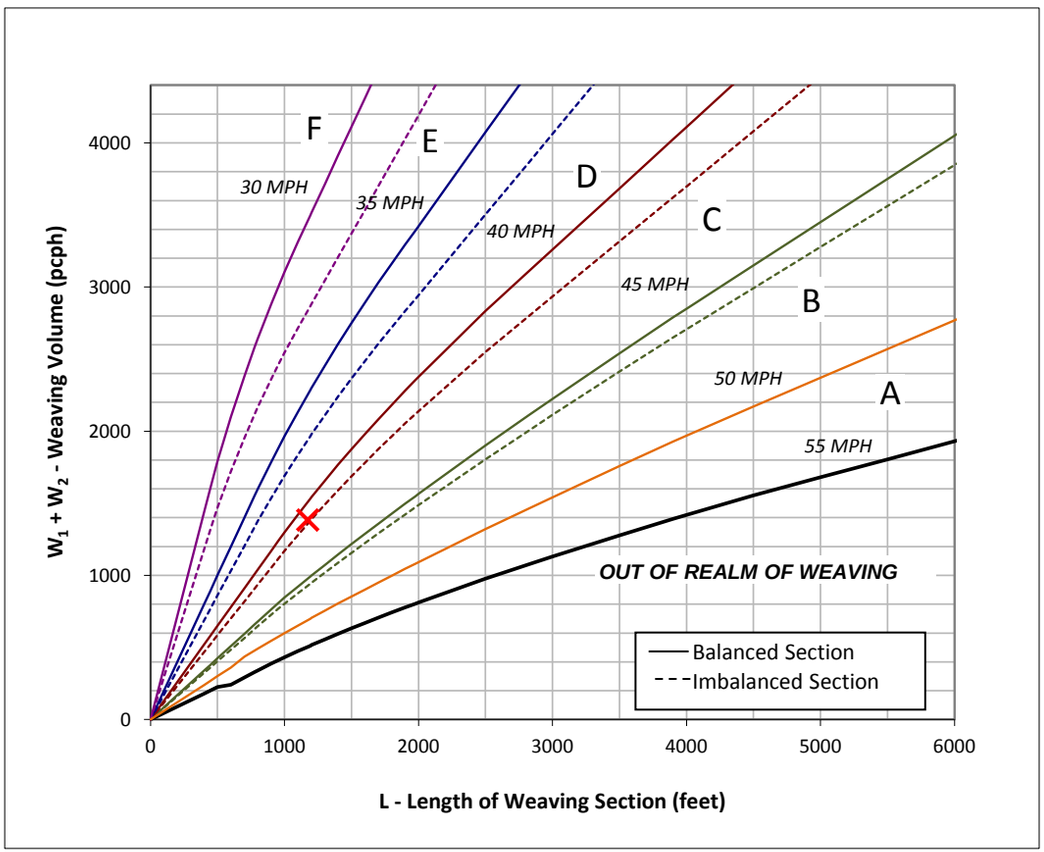
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,188	Volume (vph)*	570	Volume (vph)*	787
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,485	Volume (pcph)	581	Volume (pcph)	803



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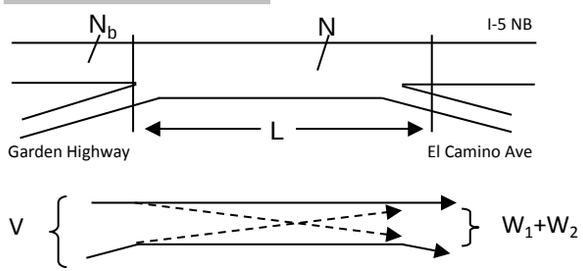


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.2
4. Weaving Intensity Factor (k)	2.42
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,462
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

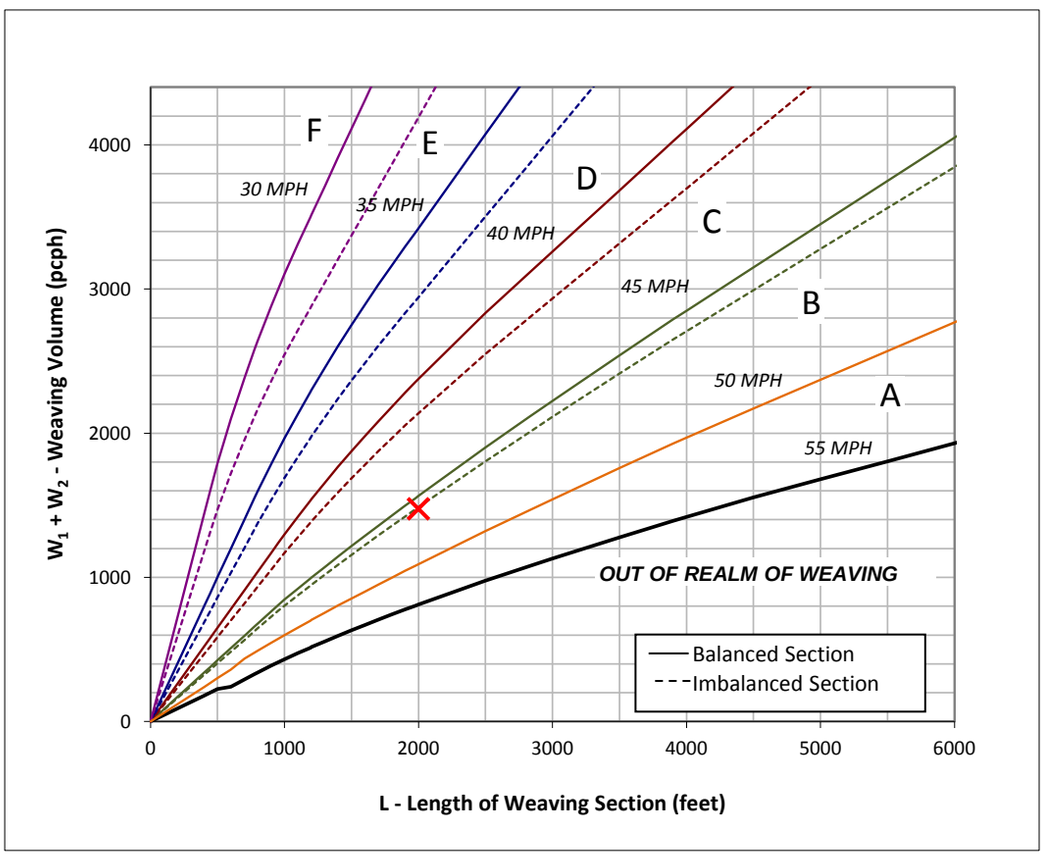
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,829	Volume (vph)*	541	Volume (vph)*	905
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,061	Volume (pcph)	552	Volume (pcph)	923



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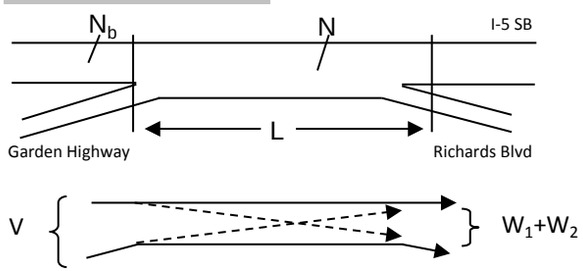


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	45.2
4. Weaving Intensity Factor (k)	1.78
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,099
6. Level of Service (LOS)	B

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

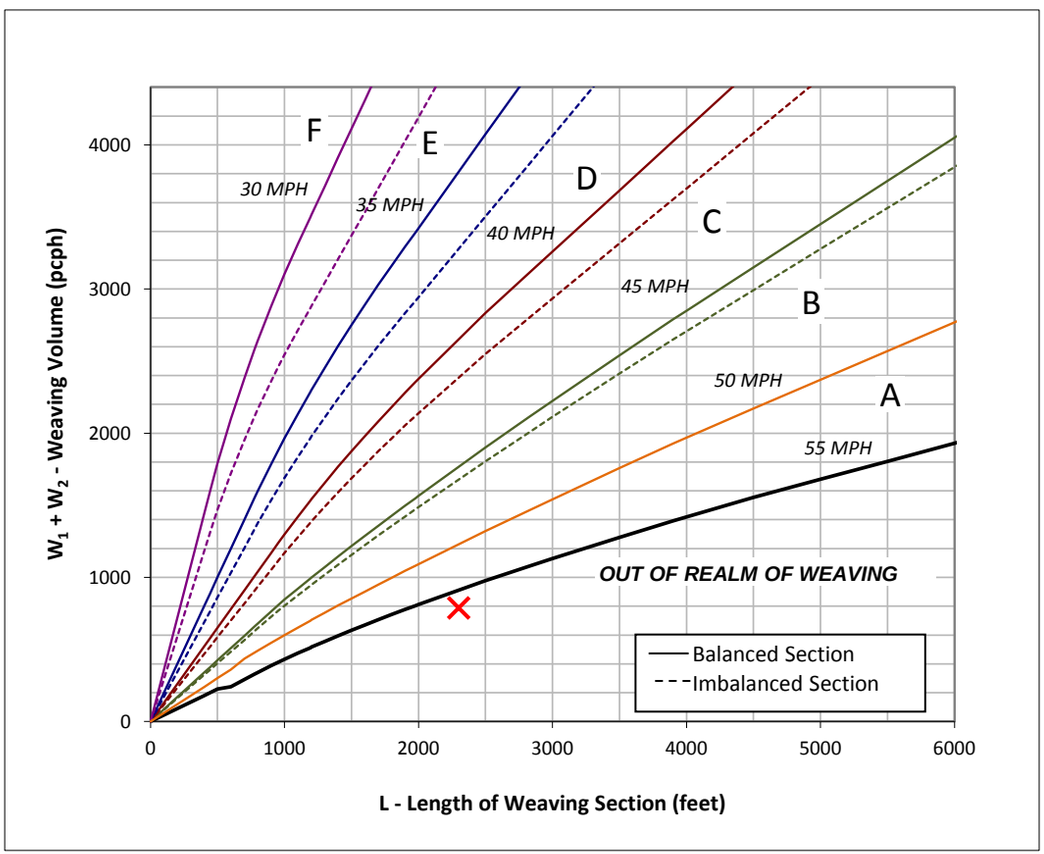
Data Input

Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information

Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline Plus MLS Stadium Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,880	Volume (vph)*	322	Volume (vph)*	450
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,066	Volume (pcph)	328	Volume (pcph)	459



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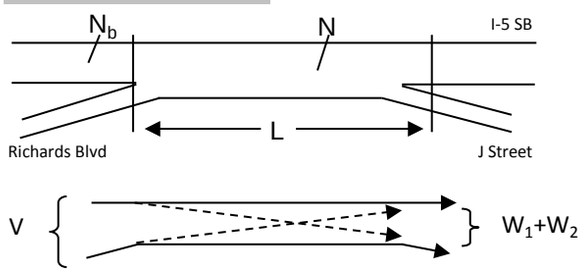


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	54.1
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	813
6. Level of Service (LOS)	A

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Daily VMT - MLS Stadium Trips with Game
Base Year Plus Stadium

Daily VMT for MLS Stadium			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	41
2	>5	<=10	474
3	>10	<=15	2,185
4	>15	<=20	26,020
5	>20	<=25	15,325
6	>25	<=30	7,925
7	>30	<=35	12,459
8	>35	<=40	18,172
9	>40	<=45	27,263
10	>45	<=50	16,044
11	>50	<=55	42,332
12	>55	<=60	54,140
13	>60	<=65	18,414
14	>65	<=70	2,054
15	>70	<=75	0
16	>75		0
MLS Stadium VMT Within SACMET Model Boundary			242,848
MLS Stadium VMT Beyond SACMET Model Boundary			5,349
Total MLS Stadium VMT			**248,197**
Total MLS Stadium External Vehicle Trips			21,110
Average MLS Stadium VMT Per Trip			11.8

Notes:

Trips include attendees and employees

Trip lengths include distances beyond SACMET model boundary

Inbound trips loaded on top of background PM 3 hour peak period assignment

Outbound trips loaded on top of background evening period assignment

APPENDIX J.1.14:

Cumulative No Project Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,523	1,416	92.9%	53.0	14.1	D
	Through	12	7	60.0%	47.3	32.5	D
	Right Turn	285	281	98.5%	27.1	10.2	C
	Subtotal	1,820	1,704	93.6%	48.8	13.3	D
EB	Left Turn						
	Through	282	288	102.0%	29.8	10.3	C
	Right Turn	59	57	96.9%	4.2	2.5	A
	Subtotal	341	345	101.1%	25.5	8.3	C
WB	Left Turn	472	414	87.7%	13.5	2.1	B
	Through	158	135	85.6%	8.3	1.3	A
	Right Turn						
	Subtotal	630	549	87.2%	12.2	1.8	B
Total		2,791	2,598	93.1%	37.9	8.9	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	63	54	85.1%	86.9	42.2	F
	Through	8	4	45.0%	151.3	81.7	F
	Right Turn	1,145	936	81.7%	121.8	45.5	F
	Subtotal	1,216	993	81.6%	120.0	45.1	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	135	118	87.4%	19.0	6.5	B
	Through	1,670	1,504	90.1%	27.7	9.4	C
	Right Turn						
	Subtotal	1,805	1,622	89.9%	27.0	9.0	C
WB	Left Turn						
	Through	567	493	87.0%	25.6	2.8	C
	Right Turn	556	510	91.7%	13.3	2.1	B
	Subtotal	1,123	1,003	89.3%	19.4	2.4	B
Total		4,144	3,618	87.3%	49.9	13.7	D

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	125	108	86.1%	47.8	26.5	D
	Through	55	58	105.5%	42.9	22.7	D
	Right Turn	19	22	117.9%	11.5	5.9	B
	Subtotal	199	188	94.5%	42.2	22.5	D
SB	Left Turn	38	34	90.5%	41.3	21.6	D
	Through	20	23	114.0%	43.4	25.2	D
	Right Turn	27	25	93.3%	6.0	3.2	A
	Subtotal	85	82	96.9%	30.9	13.9	C
EB	Left Turn	356	286	80.3%	36.1	6.1	D
	Through	1,760	1,541	87.5%	30.7	3.9	C
	Right Turn	699	641	91.7%	6.3	0.8	A
	Subtotal	2,815	2,468	87.7%	25.0	2.6	C
WB	Left Turn	114	95	83.5%	54.6	13.6	D
	Through	971	914	94.1%	38.8	12.0	D
	Right Turn	36	38	104.4%	33.6	15.4	C
	Subtotal	1,121	1,046	93.3%	40.1	12.1	D
Total		4,220	3,784	89.7%	30.2	5.6	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	43	113.7%	38.9	9.1	D
	Through	50	44	88.8%	32.9	9.1	C
	Right Turn	14	10	74.3%	5.7	5.5	A
	Subtotal	102	98	96.1%	33.3	5.6	C
SB	Left Turn	5	7	136.0%	31.0	20.5	C
	Through	6	5	80.0%	23.8	21.9	C
	Right Turn	197	190	96.6%	10.0	2.0	A
	Subtotal	208	202	97.1%	11.3	1.7	B
EB	Left Turn	140	124	88.9%	45.4	5.9	D
	Through	1,397	1,207	86.4%	24.7	7.5	C
	Right Turn	280	247	88.1%	24.2	7.4	C
	Subtotal	1,817	1,578	86.9%	26.3	7.3	C
WB	Left Turn	21	18	87.6%	36.2	16.8	D
	Through	886	822	92.8%	16.0	4.7	B
	Right Turn	78	69	88.7%	13.5	3.9	B
	Subtotal	985	910	92.3%	16.1	4.7	B
Total		3,112	2,788	89.6%	22.1	5.5	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	249	238	95.4%	28.5	2.5	C
	Through	208	210	100.8%	28.9	2.2	C
	Right Turn	10	10	104.0%	24.1	16.7	C
	Subtotal	467	458	98.0%	28.7	1.4	C
SB	Left Turn	110	70	63.6%	238.8	62.9	F
	Through	481	307	63.8%	241.4	41.7	F
	Right Turn	38	27	70.5%	245.9	60.5	F
	Subtotal	629	404	64.2%	241.0	44.9	F
EB	Left Turn	86	80	93.0%	48.8	8.0	D
	Through	1,218	1,000	82.1%	33.1	4.1	C
	Right Turn	75	61	81.6%	29.7	8.4	C
	Subtotal	1,379	1,141	82.8%	34.0	4.3	C
WB	Left Turn	30	27	89.3%	46.0	11.3	D
	Through	803	742	92.5%	31.0	5.9	C
	Right Turn	153	132	86.0%	34.1	9.8	C
	Subtotal	986	901	91.4%	31.9	6.1	C
Total		3,461	2,903	83.9%	61.4	7.4	E

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	22	104.8%	27.9	6.2	C
	Through	120	120	100.3%	28.0	3.2	C
	Right Turn	71	70	98.6%	12.0	3.7	B
	Subtotal	212	212	100.2%	22.9	3.0	C
SB	Left Turn	44	40	90.0%	24.8	5.5	C
	Through	143	153	107.1%	24.7	3.4	C
	Right Turn	75	72	95.5%	11.3	3.3	B
	Subtotal	262	264	100.9%	21.2	2.8	C
EB	Left Turn	25	18	72.0%	45.1	13.7	D
	Through	1,290	1,061	82.3%	26.6	2.4	C
	Right Turn	23	18	80.0%	26.4	7.5	C
	Subtotal	1,338	1,098	82.0%	26.9	2.2	C
WB	Left Turn	143	142	99.3%	42.9	5.4	D
	Through	890	844	94.8%	14.3	1.9	B
	Right Turn	55	52	94.5%	13.4	4.5	B
	Subtotal	1,088	1,038	95.4%	18.1	2.2	B
Total		2,900	2,612	90.1%	22.5	1.0	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	107	107.9%	43.7	8.5	D
	Through	200	230	115.2%	30.8	6.8	C
	Right Turn	5	5	96.0%	19.7	20.6	B
	Subtotal	304	342	112.5%	35.0	6.3	C
SB	Left Turn	13	11	86.2%	46.7	20.6	D
	Through	183	185	101.0%	41.3	5.6	D
	Right Turn	20	23	116.0%	33.4	14.1	C
	Subtotal	216	219	101.5%	40.9	5.0	D
EB	Left Turn	147	108	73.7%	54.7	19.5	D
	Through	1,106	858	77.5%	46.2	16.4	D
	Right Turn	152	117	76.8%	44.0	18.8	D
	Subtotal	1,405	1,083	77.1%	46.9	16.7	D
WB	Left Turn	245	234	95.3%	61.5	14.8	E
	Through	971	926	95.4%	37.4	11.3	D
	Right Turn	51	42	81.6%	32.0	10.6	C
	Subtotal	1,267	1,202	94.8%	41.9	11.8	D
Total		3,192	2,846	89.1%	42.8	11.6	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	18.3	15.6	B
	Through	63	64	101.0%	25.5	5.5	C
	Right Turn	267	268	100.2%	10.2	1.7	B
	Subtotal	335	336	100.2%	13.4	1.8	B
SB	Left Turn	165	168	102.1%	36.4	6.2	D
	Through	20	14	68.0%	28.5	14.5	C
	Right Turn	38	33	87.4%	17.3	6.9	B
	Subtotal	223	215	96.5%	33.3	5.7	C
EB	Left Turn	122	90	73.8%	41.6	6.0	D
	Through	910	660	72.6%	23.8	2.9	C
	Right Turn	10	9	92.0%	9.5	7.0	A
	Subtotal	1,042	760	72.9%	25.7	2.1	C
WB	Left Turn	298	289	97.0%	51.4	8.8	D
	Through	1,379	1,322	95.9%	31.0	7.1	C
	Right Turn	82	90	109.3%	29.8	10.6	C
	Subtotal	1,759	1,701	96.7%	34.4	6.8	C
Total		3,359	3,011	89.6%	29.8	4.1	C

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	40	35	88.0%	34.0	6.4	C
	Through	15	14	96.0%	32.6	18.2	C
	Right Turn	22	20	92.7%	16.5	8.1	B
	Subtotal	77	70	90.9%	28.4	5.2	C
SB	Left Turn	41	38	92.7%	30.4	9.4	C
	Through	5	7	136.0%	20.0	16.8	B
	Right Turn	63	68	107.3%	22.7	3.4	C
	Subtotal	109	112	103.1%	26.1	5.2	C
EB	Left Turn	46	39	84.3%	39.5	8.2	D
	Through	1,258	1,018	80.9%	17.6	3.3	B
	Right Turn	38	31	81.1%	17.3	5.5	B
	Subtotal	1,342	1,088	81.0%	18.4	3.1	B
WB	Left Turn	79	76	96.2%	47.3	5.3	D
	Through	1,656	1,647	99.5%	23.4	7.9	C
	Right Turn	5	5	96.0%	15.3	18.5	B
	Subtotal	1,740	1,728	99.3%	24.5	7.7	C
Total		3,268	2,998	91.7%	22.4	5.1	C

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	92	77	83.9%	10.5	2.7	B
	Right Turn	109	104	95.8%	7.1	1.9	A
	Subtotal	201	182	90.3%	8.6	1.7	A
SB	Left Turn	320	287	89.6%	7.9	0.6	A
	Through	428	400	93.5%	7.8	0.6	A
	Right Turn						
	Subtotal	748	687	91.8%	7.8	0.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	21	21	99.0%	14.4	5.4	B
	Through						
	Right Turn	49	47	96.3%	5.3	2.2	A
	Subtotal	70	68	97.1%	8.0	3.5	A
Total		1,019	936	91.9%	8.0	0.8	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	57	100.4%	8.3	2.0	A
	Through	338	327	96.7%	11.2	3.2	B
	Right Turn	8	10	130.0%	6.0	3.5	A
	Subtotal	403	394	97.9%	10.6	2.9	B
SB	Left Turn	79	60	75.4%	9.2	1.0	A
	Through	482	326	67.6%	17.9	1.4	C
	Right Turn	25	20	80.0%	9.9	4.3	A
	Subtotal	586	406	69.2%	16.2	1.1	C
EB	Left Turn	13	12	89.2%	8.6	4.3	A
	Through	101	90	88.7%	10.9	1.2	B
	Right Turn	355	315	88.7%	9.4	0.9	A
	Subtotal	469	416	88.7%	9.7	0.8	A
WB	Left Turn	2	2	100.0%	3.9	5.5	A
	Through	23	25	109.6%	7.8	1.2	A
	Right Turn	116	111	95.9%	4.3	0.7	A
	Subtotal	141	138	98.2%	5.0	0.8	A
Total		1,599	1,354	84.7%	11.5	1.1	B

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	3	45.7%	27.1	26.7	C
	Through	240	194	81.0%	32.1	3.3	C
	Right Turn	86	80	93.0%	20.9	4.5	C
	Subtotal	333	278	83.4%	28.9	2.8	C
SB	Left Turn	675	605	89.7%	67.5	28.6	E
	Through	549	525	95.6%	11.9	8.2	B
	Right Turn	29	27	92.4%	10.9	9.3	B
	Subtotal	1,253	1,157	92.3%	40.9	18.5	D
EB	Left Turn	3	2	80.0%	28.2	70.1	C
	Through	3	3	106.7%	21.4	29.6	C
	Right Turn	4	5	130.0%	5.9	5.3	A
	Subtotal	10	11	108.0%	24.3	32.4	C
WB	Left Turn	53	46	87.5%	31.3	7.0	C
	Through	13	16	123.1%	33.2	10.1	C
	Right Turn	416	409	98.4%	15.3	3.5	B
	Subtotal	482	472	97.8%	17.5	3.4	B
Total		2,078	1,917	92.2%	33.3	11.6	C

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	130	128	98.8%	12.1	2.3	B
	Through	177	168	95.1%	9.1	0.7	A
	Right Turn	2	4	200.0%	4.1	2.9	A
	Subtotal	309	301	97.3%	10.3	1.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	84	74	87.6%	21.9	2.5	C
	Through	578	516	89.3%	22.0	1.8	C
	Right Turn						
	Subtotal	662	590	89.1%	22.0	1.8	C
WB	Left Turn						
	Through	393	396	100.7%	12.8	3.4	B
	Right Turn	13	14	107.7%	7.9	5.8	A
	Subtotal	406	410	100.9%	12.6	3.5	B
Total		1,377	1,300	94.4%	16.4	1.7	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	2	33.3%	4.7	6.1	A
	Through	198	129	65.3%	7.9	2.0	A
	Right Turn						
	Subtotal	204	131	64.3%	7.9	2.0	A
SB	Left Turn						
	Through	572	542	94.8%	22.4	15.0	C
	Right Turn	5	2	48.0%	12.7	17.3	B
	Subtotal	577	545	94.4%	22.4	15.0	C
EB	Left Turn	183	159	86.8%	28.6	3.4	C
	Through						
	Right Turn	397	341	85.9%	8.4	1.2	A
	Subtotal	580	500	86.2%	14.8	1.8	B
WB	Left Turn	5	4	72.0%	17.8	15.6	B
	Through	401	384	95.9%	12.5	4.2	B
	Right Turn	176	176	100.2%	6.9	1.5	A
	Subtotal	582	564	97.0%	10.8	3.2	B
Total		1,943	1,740	89.6%	15.3	4.9	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	11	86.2%	82.0	31.8	F
	Through	695	568	81.7%	55.6	7.8	E
	Right Turn	204	150	73.7%	55.2	33.4	E
	Subtotal	912	730	80.0%	55.7	9.9	E
SB	Left Turn	136	102	75.0%	83.1	57.5	F
	Through	540	464	86.0%	31.4	15.1	C
	Right Turn	15	14	90.7%	34.3	28.4	C
	Subtotal	691	580	83.9%	40.1	19.5	D
EB	Left Turn	5	6	120.0%	54.6	48.6	D
	Through	39	46	119.0%	47.7	38.8	D
	Right Turn	5	4	88.0%	16.1	26.5	B
	Subtotal	49	57	115.9%	47.9	38.4	D
WB	Left Turn	187	171	91.6%	49.1	15.5	D
	Through	5	7	136.0%	26.1	29.1	C
	Right Turn	16	18	115.0%	43.8	18.7	D
	Subtotal	208	196	94.4%	48.8	14.6	D
Total		1,860	1,563	84.0%	48.4	11.5	D

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	17.0	20.5	B
	Through	426	291	68.4%	25.5	3.8	C
	Right Turn	288	181	62.8%	48.9	63.1	D
	Subtotal	719	475	66.1%	31.9	19.6	C
SB	Left Turn	18	11	60.0%	113.7	132.7	F
	Through	502	450	89.6%	29.8	5.0	C
	Right Turn	5	4	80.0%	19.9	12.0	B
	Subtotal	525	464	88.5%	30.7	4.4	C
EB	Left Turn	109	85	77.8%	54.2	64.2	D
	Through	232	170	73.4%	48.2	52.5	D
	Right Turn	38	32	83.2%	49.2	55.6	D
	Subtotal	379	287	75.7%	49.5	53.8	D
WB	Left Turn	5	5	96.0%	6.2	11.2	A
	Through	198	186	93.9%	3.3	0.7	A
	Right Turn	5	4	88.0%	1.1	1.0	A
	Subtotal	208	195	93.8%	3.3	0.8	A
Total		1,831	1,422	77.6%	29.6	14.6	C

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	401	345	86.0%	21.6	10.8	C
	Through	471	431	91.5%	13.5	5.8	B
	Right Turn	7	6	80.0%	9.7	7.2	A
	Subtotal	879	782	88.9%	17.2	8.2	B
EB	Left Turn	199	126	63.5%	75.2	54.9	E
	Through	259	167	64.6%	79.0	51.4	E
	Right Turn	80	55	68.5%	64.7	40.7	E
	Subtotal	538	348	64.8%	75.7	51.0	E
WB	Left Turn	19	17	88.4%	32.5	5.2	C
	Through	201	189	94.1%	30.0	1.3	C
	Right Turn	5	6	120.0%	22.5	9.1	C
	Subtotal	225	212	94.2%	30.1	1.3	C
Total		1,642	1,342	81.7%	32.8	13.8	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	4	73.3%	4.1	4.1	A
	Through	632	642	101.6%	9.3	1.1	A
	Right Turn	226	225	99.6%	10.1	1.5	B
	Subtotal	864	872	100.9%	9.5	1.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	337	251	74.5%	39.0	11.2	D
	Through	218	166	76.1%	42.1	12.5	D
	Right Turn						
	Subtotal	555	417	75.2%	40.2	11.6	D
WB	Left Turn						
	Through	219	205	93.5%	12.6	3.9	B
	Right Turn	37	33	88.6%	9.0	4.3	A
	Subtotal	256	238	92.8%	12.2	3.5	B
Total		1,675	1,527	91.2%	18.2	3.1	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	372	305	82.0%	29.3	5.1	C
	Through	913	743	81.4%	58.6	16.6	E
	Right Turn						
	Subtotal	1,285	1,048	81.6%	49.8	10.0	D
SB	Left Turn						
	Through						
	Right Turn	697	613	88.0%	19.8	3.7	B
	Subtotal	697	613	88.0%	19.8	3.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	940	637	67.8%	91.4	60.0	F
	Right Turn	72	46	64.4%	118.3	83.0	F
	Subtotal	1,012	684	67.5%	93.6	62.4	F
Total		2,994	2,345	78.3%	51.3	14.8	D

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	196	130	66.3%	114.9	10.8	F
	Through	654	430	65.8%	82.9	14.5	F
	Right Turn						
	Subtotal	850	560	65.9%	90.0	13.1	F
SB	Left Turn						
	Through	487	442	90.8%	17.9	2.0	B
	Right Turn	58	40	68.3%	16.0	8.9	B
	Subtotal	545	482	88.4%	17.8	1.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	55	89.8%	50.5	39.2	D
	Through	758	625	82.4%	69.3	32.5	E
	Right Turn	65	52	80.0%	75.1	35.6	E
	Subtotal	884	732	82.8%	67.6	31.3	E
Total		2,279	1,774	77.8%	60.3	10.3	E

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	485	420	86.6%	8.0	2.8	A
	Right Turn	85	79	93.2%	14.4	16.1	B
	Subtotal	570	499	87.6%	8.8	3.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	379	358	94.6%	19.0	11.0	B
	Through	799	709	88.8%	24.2	20.0	C
	Right Turn						
	Subtotal	1,178	1,068	90.6%	22.5	16.6	C
Total		1,748	1,567	89.6%	17.4	10.0	B

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	259	248	95.9%	13.1	6.2	B
	Through	749	772	103.0%	10.8	1.4	B
	Right Turn						
	Subtotal	1,008	1,020	101.2%	11.4	2.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	919	864	94.0%	14.4	8.1	B
	Right Turn	115	94	82.1%	12.4	8.3	B
	Subtotal	1,034	958	92.6%	14.2	8.1	B
Total		2,042	1,978	96.9%	12.6	4.7	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	4	72.0%	91.2	57.9	F
	Through	1,859	1,513	81.4%	90.8	20.1	F
	Right Turn	227	179	78.9%	71.2	13.6	E
	Subtotal	2,091	1,696	81.1%	88.8	19.3	F
SB	Left Turn	80	78	97.5%	56.7	20.7	E
	Through	123	129	104.7%	68.9	30.5	E
	Right Turn						
	Subtotal	203	207	101.9%	65.0	26.1	E
EB	Left Turn	5	4	80.0%	61.4	48.5	E
	Through	1,197	1,028	85.8%	104.9	37.7	F
	Right Turn	830	702	84.5%	137.3	29.0	F
	Subtotal	2,032	1,733	85.3%	117.7	33.0	F
NB	Left Turn						
	Through						
	Right Turn	58	50	86.9%	62.8	37.2	E
	Subtotal	58	50	86.9%	62.8	37.2	E
Total		4,384	3,686	84.1%	100.8	23.9	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	465	450	96.8%	40.7	12.9	D
	Right Turn	474	444	93.8%	30.4	7.4	C
	Subtotal	939	894	95.3%	35.4	9.3	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	820	630	76.8%	32.5	11.4	C
	Through	2,249	1,839	81.8%	30.4	17.7	C
	Right Turn	125	107	85.4%	20.2	7.0	C
	Subtotal	3,194	2,576	80.7%	30.4	14.3	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,133	3,470	84.0%	31.3	10.3	C

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	154	143	92.7%	21.7	3.6	C
	Through	710	623	87.7%	26.2	2.9	C
	Right Turn						
	Subtotal	864	766	88.6%	25.4	2.7	C
EB	Left Turn						
	Through	1,976	1,713	86.7%	9.5	0.8	A
	Right Turn	331	292	88.2%	8.3	0.7	A
	Subtotal	2,307	2,005	86.9%	9.3	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,171	2,771	87.4%	13.7	1.2	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	550	436	79.3%	35.6	4.9	D
	Right Turn	166	130	78.1%	30.8	5.2	C
	Subtotal	716	566	79.0%	34.5	4.8	C
SB	Left Turn	288	254	88.2%	81.2	28.9	F
	Through	471	396	84.2%	53.7	31.1	D
	Right Turn						
	Subtotal	759	650	85.7%	64.7	30.4	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	220	200	90.9%	50.4	35.1	D
	Through						
	Right Turn	90	95	105.3%	17.9	12.8	B
	Subtotal	310	295	95.1%	39.3	25.6	D
Total		1,785	1,511	84.6%	47.7	16.3	D

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	18	75.0%	21.5	12.4	C
	Through	269	194	72.0%	10.8	2.2	B
	Right Turn	148	107	72.2%	7.1	2.0	A
	Subtotal	441	318	72.2%	10.3	1.7	B
SB	Left Turn	169	167	98.7%	36.3	18.6	D
	Through	361	340	94.2%	23.7	22.2	C
	Right Turn	46	58	126.1%	22.6	25.1	C
	Subtotal	576	565	98.1%	27.3	21.1	C
EB	Left Turn	15	12	82.7%	12.7	5.7	B
	Through	263	221	84.0%	12.9	5.7	B
	Right Turn	176	151	85.7%	11.9	7.3	B
	Subtotal	454	384	84.6%	12.6	6.1	B
WB	Left Turn	39	31	80.0%	49.6	56.6	D
	Through	240	229	95.5%	18.4	24.5	B
	Right Turn	133	123	92.3%	12.8	17.1	B
	Subtotal	412	383	93.0%	19.4	23.8	B
Total		1,883	1,650	87.6%	18.2	10.7	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	104.0%	38.4	36.9	D
	Through	571	584	102.2%	28.2	2.6	C
	Right Turn	164	169	102.9%	9.7	1.7	A
	Subtotal	740	758	102.4%	24.3	1.8	C
SB	Left Turn	180	166	92.2%	41.3	5.7	D
	Through	367	363	99.0%	16.9	3.6	B
	Right Turn	472	486	103.1%	14.9	2.5	B
	Subtotal	1,019	1,016	99.7%	19.9	2.1	B
EB	Left Turn	326	324	99.5%	53.6	7.3	D
	Through	381	367	96.4%	30.5	2.7	C
	Right Turn	5	4	80.0%	17.8	20.7	B
	Subtotal	712	696	97.7%	41.2	4.3	D
WB	Left Turn	55	48	87.3%	53.9	13.2	D
	Through	178	173	97.3%	35.1	8.6	D
	Right Turn	85	76	89.4%	12.5	2.9	B
	Subtotal	318	297	93.5%	32.4	4.6	C
Total		2,789	2,766	99.2%	27.8	1.4	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	0	20.0%	0.2	0.6	A
	Through	317	315	99.4%	39.4	4.3	D
	Right Turn	5	4	80.0%	10.3	12.4	B
	Subtotal	324	320	98.6%	39.0	4.2	D
SB	Left Turn	121	132	108.8%	33.8	5.2	C
	Through	205	215	105.0%	35.8	5.7	D
	Right Turn	62	57	92.3%	16.4	5.9	B
	Subtotal	388	404	104.1%	32.3	3.2	C
EB	Left Turn	287	276	96.3%	64.6	17.0	E
	Through	437	425	97.2%	31.9	5.0	C
	Right Turn	1	1	80.0%	2.8	7.8	A
	Subtotal	725	702	96.8%	44.9	6.9	D
WB	Left Turn	176	160	90.7%	46.8	5.6	D
	Through	254	245	96.4%	34.7	5.0	C
	Right Turn	165	165	99.9%	24.4	2.7	C
	Subtotal	595	569	95.7%	35.1	2.7	D
Total		2,032	1,995	98.2%	38.6	3.1	D

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	150	148	98.9%	10.0	1.2	A
	Through	1,636	1,601	97.8%	8.2	0.8	A
	Right Turn	25	25	99.2%	4.7	1.2	A
	Subtotal	1,811	1,774	98.0%	8.3	0.8	A
EB	Left Turn						
	Through	174	182	104.4%	16.5	2.1	B
	Right Turn	14	16	111.4%	11.0	4.8	B
	Subtotal	188	197	104.9%	16.1	2.2	B
WB	Left Turn	13	11	83.1%	20.7	9.6	C
	Through	60	62	104.0%	15.1	4.3	B
	Right Turn						
	Subtotal	73	73	100.3%	15.8	3.1	B
Total		2,072	2,044	98.7%	9.3	0.6	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	205	192	93.9%	12.1	1.5	B
	Through	1,433	1,413	98.6%	12.9	0.9	B
	Right Turn	25	22	89.6%	11.0	4.4	B
	Subtotal	1,663	1,628	97.9%	12.7	0.9	B
EB	Left Turn						
	Through	65	70	108.3%	14.8	2.7	B
	Right Turn	170	161	94.6%	9.2	1.0	A
	Subtotal	235	231	98.4%	10.9	1.1	B
WB	Left Turn	4	2	40.0%	3.0	4.4	A
	Through	273	271	99.3%	16.9	2.8	B
	Right Turn						
	Subtotal	277	273	98.5%	16.8	2.8	B
Total		2,175	2,132	98.0%	13.1	0.6	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	133	121	90.8%	22.3	5.3	C
	Right Turn	472	409	86.7%	21.1	5.1	C
	Subtotal	605	530	87.6%	21.3	4.8	C
SB	Left Turn	99	96	96.6%	33.8	4.4	C
	Through	489	478	97.8%	11.8	1.2	B
	Right Turn						
	Subtotal	588	574	97.6%	15.4	1.3	B
EB	Left Turn	154	138	89.9%	19.2	2.9	B
	Through	839	780	93.0%	17.6	1.7	B
	Right Turn	222	189	85.0%	16.5	3.2	B
	Subtotal	1,215	1,108	91.2%	17.6	1.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,408	2,212	91.8%	17.9	1.5	B

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	70	74	106.3%	34.8	9.2	C
	Through						
	Right Turn	155	169	108.9%	40.3	8.1	D
	Subtotal	225	243	108.1%	39.1	6.3	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	946	837	88.5%	59.4	13.0	E
	Right Turn	317	301	95.0%	30.5	6.5	C
	Subtotal	1,263	1,138	90.1%	52.0	9.4	D
SW	Left Turn	21	19	91.4%	54.8	16.3	D
	Through	2,007	1,985	98.9%	49.6	15.9	D
	Right Turn	2	1	60.0%	29.6	27.3	C
	Subtotal	2,030	2,006	98.8%	49.7	15.9	D
Total		3,518	3,387	96.3%	49.8	10.7	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	241	247	102.4%	18.6	1.9	B
	Through	1,066	1,058	99.2%	14.1	0.9	B
	Right Turn	22	24	109.1%	2.9	1.7	A
	Subtotal	1,329	1,329	100.0%	14.7	0.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	863	731	84.7%	32.9	3.0	C
	Through	28	27	95.7%	36.9	8.3	D
	Right Turn						
	Subtotal	891	758	85.1%	33.0	2.9	C
WB	Left Turn						
	Through	17	18	105.9%	13.8	6.8	B
	Right Turn	11	12	109.1%	3.6	2.8	A
	Subtotal	28	30	107.1%	9.1	3.5	A
Total		2,248	2,117	94.2%	21.2	1.2	C

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	395	359	90.9%	29.2	3.4	C
	Through	229	195	85.1%	18.0	1.8	B
	Right Turn	36	35	97.8%	12.3	3.3	B
	Subtotal	660	589	89.3%	24.5	2.3	C
SB	Left Turn	116	115	99.0%	33.0	5.6	C
	Through	162	174	107.2%	29.2	5.1	C
	Right Turn	100	96	96.4%	20.2	4.5	C
	Subtotal	378	385	101.8%	28.1	4.2	C
EB	Left Turn	10	6	64.0%	42.3	32.7	D
	Through	678	664	97.9%	55.7	19.9	E
	Right Turn	185	169	91.5%	54.0	21.5	D
	Subtotal	873	840	96.2%	55.4	20.0	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,911	1,814	94.9%	39.7	8.8	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 39 **6th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	533	446	83.8%	31.8	17.0	D
	Subtotal	533	446	83.8%	31.8	17.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	682	672	98.5%	1.3	0.2	A
	Right Turn	151	141	93.5%	1.3	0.4	A
	Subtotal	833	813	97.6%	1.3	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,366	1,260	92.2%	12.0	6.0	B

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	5	2	48.0%	2.7	4.6	A
	Subtotal	5	2	48.0%	2.7	4.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,405	1,287	91.6%	1.6	0.3	A
	Right Turn	5	6	128.0%	1.5	1.0	A
	Subtotal	1,410	1,293	91.7%	1.6	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,415	1,296	91.6%	1.6	0.3	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	38	33	87.4%	15.3	4.5	B
	Right Turn	77	80	104.4%	9.0	3.3	A
	Subtotal	115	114	98.8%	10.5	3.0	B
SB	Left Turn	26	22	86.2%	32.0	5.4	C
	Through	417	422	101.3%	13.2	1.4	B
	Right Turn						
	Subtotal	443	445	100.4%	14.2	1.4	B
EB	Left Turn	252	231	91.6%	13.2	1.7	B
	Through	1,160	1,054	90.9%	11.0	0.7	B
	Right Turn	21	22	104.8%	6.9	3.8	A
	Subtotal	1,433	1,307	91.2%	11.3	0.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,991	1,865	93.7%	12.0	0.7	B

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 42 **Bercut Dr/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	304	210	69.2%	15.7	2.4	C
	Right Turn	261	182	69.9%	11.0	1.8	B
	Subtotal	565	393	69.5%	13.5	1.7	B
SB	Left Turn	91	96	105.5%	7.9	0.8	A
	Through	218	240	109.9%	9.2	1.2	A
	Right Turn						
	Subtotal	309	336	108.6%	8.8	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	10	10	104.0%	8.6	4.1	A
	Through						
	Right Turn	138	130	94.5%	6.5	1.0	A
	Subtotal	148	141	95.1%	6.6	0.9	A
Total		1,022	869	85.0%	10.6	1.0	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	16.7	15.4	B
	Through	442	392	88.7%	13.6	2.2	B
	Right Turn	17	16	94.1%	8.9	4.1	A
	Subtotal	464	412	88.7%	13.6	2.2	B
SB	Left Turn	17	14	82.4%	21.0	9.1	C
	Through	339	335	98.9%	11.1	2.0	B
	Right Turn	28	30	107.1%	7.8	4.0	A
	Subtotal	384	379	98.8%	11.3	2.0	B
EB	Left Turn	116	91	78.6%	14.8	2.8	B
	Through	195	164	84.1%	10.9	2.3	B
	Right Turn	5	5	96.0%	3.9	4.4	A
	Subtotal	316	260	82.3%	12.2	2.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,164	1,051	90.3%	12.5	1.6	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	22	17	76.4%	6.9	1.5	A
	Right Turn	18	21	115.6%	4.5	1.6	A
	Subtotal	40	38	94.0%	5.5	1.5	A
SB	Left Turn	5	5	104.0%	4.0	3.8	A
	Through	11	12	105.5%	6.6	1.6	A
	Right Turn						
	Subtotal	16	17	105.0%	6.4	1.4	A
EB	Left Turn	16	16	102.5%	3.2	1.0	A
	Through	193	162	83.7%	1.8	0.3	A
	Right Turn	20	11	54.0%	1.3	1.0	A
	Subtotal	229	189	82.4%	1.9	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		285	243	85.3%	2.8	0.3	A

Intersection 45 **6th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	383	329	85.8%	25.8	4.0	D
	Right Turn	65	52	80.6%	21.9	4.7	C
	Subtotal	448	381	85.1%	25.2	3.9	D
SB	Left Turn	4	4	90.0%	8.4	6.7	A
	Through	228	199	87.2%	23.8	28.6	C
	Right Turn						
	Subtotal	232	202	87.2%	23.5	28.0	C
EB	Left Turn	179	148	82.9%	3.5	2.1	A
	Through	32	33	102.5%	3.3	0.7	A
	Right Turn	5	4	80.0%	2.6	2.0	A
	Subtotal	216	185	85.7%	3.4	1.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		896	769	85.8%	19.4	7.2	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	543	474	87.4%	14.0	1.8	B
	Right Turn	54	48	88.1%	15.7	3.5	B
	Subtotal	597	522	87.4%	14.2	1.8	B
SB	Left Turn	46	56	122.6%	47.7	4.8	D
	Through	554	511	92.3%	3.7	1.4	A
	Right Turn						
	Subtotal	600	568	94.6%	8.2	1.6	A
EB	Left Turn	72	64	89.4%	22.7	3.1	C
	Through	26	22	86.2%	24.3	5.4	C
	Right Turn	3	3	106.7%	10.6	13.6	B
	Subtotal	101	90	89.1%	22.9	3.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,298	1,180	90.9%	12.0	1.4	B

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	12	116.0%	43.2	14.9	D
	Through	63	50	78.7%	44.4	10.8	D
	Right Turn	15	11	74.7%	32.3	18.2	C
	Subtotal	88	72	82.3%	42.9	8.4	D
SB	Left Turn	480	342	71.3%	190.5	19.2	F
	Through	180	118	65.8%	138.5	17.6	F
	Right Turn	162	103	63.5%	136.6	19.6	F
	Subtotal	822	564	68.6%	169.6	18.6	F
EB	Left Turn						
	Through	1,182	789	66.7%	259.2	25.9	F
	Right Turn	85	60	70.1%	255.9	27.5	F
	Subtotal	1,267	848	67.0%	259.0	25.9	F
WB	Left Turn						
	Through	994	801	80.6%	29.6	4.6	C
	Right Turn	84	68	80.5%	3.9	0.9	A
	Subtotal	1,078	868	80.6%	27.6	4.2	C
Total		3,255	2,353	72.3%	145.0	10.3	F

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	44	111.8%	59.2	11.4	E
	Through	55	49	88.7%	28.1	6.8	C
	Right Turn	10	10	104.0%	17.1	10.3	B
	Subtotal	104	103	98.8%	40.2	6.6	D
SB	Left Turn	25	23	91.2%	95.4	36.8	F
	Through	40	38	96.0%	106.8	38.1	F
	Right Turn	163	146	89.6%	110.3	39.6	F
	Subtotal	228	207	90.9%	108.6	37.4	F
EB	Left Turn	542	323	59.6%	60.3	6.3	E
	Through	846	585	69.2%	21.4	1.4	C
	Right Turn	289	190	65.6%	17.4	3.2	B
	Subtotal	1,677	1,098	65.5%	32.3	3.0	C
WB	Left Turn	10	8	80.0%	97.5	29.9	F
	Through	807	631	78.2%	65.4	15.6	E
	Right Turn	37	30	81.1%	29.8	9.2	C
	Subtotal	854	669	78.4%	64.3	15.4	E
Total		2,863	2,077	72.6%	50.3	6.4	D

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	35	28	78.9%	55.5	16.9	E
	Through	35	31	88.0%	33.9	9.2	C
	Right Turn	30	27	90.7%	19.0	10.6	B
	Subtotal	100	86	85.6%	35.7	9.5	D
SB	Left Turn	27	18	66.7%	49.2	27.2	D
	Through	20	13	64.0%	32.5	6.1	C
	Right Turn						
	Subtotal	47	31	65.5%	40.3	11.1	D
EB	Left Turn	28	16	57.1%	73.6	14.7	E
	Through	797	575	72.2%	8.5	1.9	A
	Right Turn	56	42	75.7%	4.7	2.1	A
	Subtotal	881	634	71.9%	9.8	2.3	A
WB	Left Turn	57	37	64.6%	97.3	35.2	F
	Through	744	637	85.6%	50.2	34.5	D
	Right Turn	65	69	106.5%	28.2	20.5	C
	Subtotal	866	743	85.8%	50.4	32.7	D
Total		1,894	1,493	78.8%	31.6	15.6	C

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	6	80.0%	52.5	41.4	D
	Through	12	14	116.7%	44.4	14.9	D
	Right Turn	17	12	72.9%	24.2	17.9	C
	Subtotal	36	32	88.9%	40.1	11.0	D
SB	Left Turn	14	10	74.3%	53.8	34.4	D
	Through	9	7	80.0%	43.9	38.9	D
	Right Turn	3	4	120.0%	5.6	8.5	A
	Subtotal	26	21	81.5%	49.2	32.3	D
EB	Left Turn	7	4	51.4%	40.0	38.5	D
	Through	825	594	72.0%	10.1	4.3	B
	Right Turn	24	22	90.0%	6.1	6.4	A
	Subtotal	856	619	72.3%	10.4	4.3	B
WB	Left Turn	21	14	66.7%	54.6	24.3	D
	Through	925	883	95.5%	9.9	7.6	A
	Right Turn	30	30	100.0%	7.3	10.3	A
	Subtotal	976	927	95.0%	10.5	7.7	B
Total		1,894	1,599	84.4%	11.5	4.7	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	125	124	99.2%	65.9	8.8	E
	Through	201	190	94.7%	38.3	5.9	D
	Right Turn	84	85	101.0%	31.5	9.2	C
	Subtotal	410	399	97.4%	45.3	5.7	D
SB	Left Turn	29	26	91.0%	93.6	14.1	F
	Through	186	168	90.1%	65.2	18.2	E
	Right Turn	137	124	90.2%	54.7	22.7	D
	Subtotal	352	318	90.2%	63.7	18.8	E
EB	Left Turn	96	56	58.3%	73.0	7.0	E
	Through	642	460	71.6%	20.3	5.3	C
	Right Turn	118	86	72.5%	19.4	7.3	B
	Subtotal	856	601	70.2%	25.3	4.6	C
WB	Left Turn	29	24	84.1%	65.6	8.5	E
	Through	714	701	98.2%	11.8	2.3	B
	Right Turn	170	167	98.1%	9.0	3.0	A
	Subtotal	913	892	97.7%	12.8	2.1	B
Total		2,531	2,210	87.3%	29.5	4.2	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	23	17	73.0%	8.5	5.3	A
	Subtotal	23	17	73.0%	8.5	5.3	A
EB	Left Turn						
	Through	755	581	77.0%	10.1	6.0	B
	Right Turn						
	Subtotal	755	581	77.0%	10.1	6.0	B
WB	Left Turn						
	Through	890	889	99.9%	2.0	0.2	A
	Right Turn	33	29	87.3%	1.4	0.5	A
	Subtotal	923	918	99.4%	2.0	0.2	A
Total		1,701	1,516	89.1%	5.2	2.3	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	17	101.2%	58.0	25.4	E
	Through	200	199	99.4%	46.2	8.6	D
	Right Turn	72	53	73.9%	38.2	11.1	D
	Subtotal	289	269	93.1%	45.7	8.3	D
SB	Left Turn	111	90	80.7%	150.2	106.1	F
	Through	69	64	92.2%	59.9	48.5	E
	Right Turn	46	38	83.5%	52.7	52.1	D
	Subtotal	226	192	84.8%	98.0	67.1	F
EB	Left Turn	245	162	66.1%	69.6	8.7	E
	Through	496	393	79.2%	56.9	16.1	E
	Right Turn	14	12	85.7%	54.8	22.1	D
	Subtotal	755	567	75.1%	60.7	13.8	E
WB	Left Turn	474	372	78.5%	39.4	6.9	D
	Through	860	843	98.0%	15.1	2.3	B
	Right Turn	15	18	117.3%	15.6	9.6	B
	Subtotal	1,349	1,232	91.4%	22.5	3.3	C
Total		2,619	2,260	86.3%	40.9	8.2	D

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	324	317	97.8%	84.2	37.3	F
	Through	335	366	109.4%	20.7	2.3	C
	Right Turn						
	Subtotal	659	683	103.7%	50.3	18.0	D
SB	Left Turn						
	Through	328	313	95.5%	44.8	8.0	D
	Right Turn	229	225	98.2%	52.5	17.0	D
	Subtotal	557	538	96.6%	48.1	11.7	D
EB	Left Turn	258	181	70.2%	37.0	3.6	D
	Through						
	Right Turn	421	309	73.4%	23.4	2.9	C
	Subtotal	679	490	72.2%	28.4	2.4	C
WB	Left Turn	504	444	88.0%	110.0	19.9	F
	Through	796	659	82.8%	122.5	18.1	F
	Right Turn	4	4	100.0%	80.8	19.1	F
	Subtotal	1,304	1,107	84.9%	117.5	18.4	F
Total		3,199	2,818	88.1%	72.7	8.5	E

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	12	1	6.7%	343.2	163.1	F
	Subtotal	12	1	6.7%	69.0	162.8	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,287	1,187	92.2%	31.8	13.3	D
	Right Turn	5	2	40.0%	13.4	7.9	B
	Subtotal	1,292	1,189	92.0%	31.8	13.3	D
Total		1,304	1,190	91.2%	31.7	13.2	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	386	378	98.0%	20.5	19.1	C
	Subtotal	386	378	98.0%	20.5	19.1	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	896	878	98.0%	15.5	10.5	B
	Right Turn	16	18	110.0%	13.5	15.6	B
	Subtotal	912	896	98.2%	15.5	10.6	B
Total		1,298	1,274	98.2%	16.9	12.7	B

Intersection 57 **Bercut Dr/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	13.9	16.5	B
	Through	94	95	100.9%	13.5	2.6	B
	Right Turn	123	130	105.4%	7.0	1.6	A
	Subtotal	222	227	102.2%	9.9	1.6	A
SB	Left Turn	177	126	71.4%	21.9	4.1	C
	Through	84	59	70.5%	7.1	3.0	A
	Right Turn	5	4	80.0%	4.1	3.9	A
	Subtotal	266	190	71.3%	17.0	2.7	B
EB	Left Turn	5	2	32.0%	4.9	11.5	A
	Through	208	138	66.3%	11.9	1.8	B
	Right Turn	52	41	79.2%	7.1	3.0	A
	Subtotal	265	181	68.2%	10.8	1.6	B
WB	Left Turn	128	101	78.8%	18.6	1.9	B
	Through	78	71	90.8%	16.2	2.9	B
	Right Turn	5	4	72.0%	7.2	7.0	A
	Subtotal	211	175	83.0%	17.4	2.0	B
Total		964	772	80.1%	13.6	1.5	B

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 58 **Huntington St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	77	53	69.1%	5.8	0.8	A
	Through						
	Right Turn	24	19	78.3%	4.2	0.6	A
	Subtotal	101	72	71.3%	5.4	0.7	A
EB	Left Turn	6	3	53.3%	4.7	4.1	A
	Through	509	406	79.7%	8.9	0.9	A
	Right Turn						
	Subtotal	515	409	79.4%	8.9	0.9	A
WB	Left Turn						
	Through	175	151	86.2%	8.4	0.4	A
	Right Turn	68	60	87.6%	5.6	0.4	A
	Subtotal	243	210	86.6%	7.6	0.4	A
Total		859	691	80.5%	8.1	0.6	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	34	28	83.5%	6.0	1.2	A
	Through						
	Right Turn	20	14	70.0%	3.6	1.0	A
	Subtotal	54	42	78.5%	5.3	1.1	A
EB	Left Turn	5	3	56.0%	6.5	3.8	A
	Through	565	446	79.0%	11.3	3.6	B
	Right Turn						
	Subtotal	570	449	78.8%	11.3	3.6	B
WB	Left Turn						
	Through	262	232	88.4%	8.5	0.3	A
	Right Turn	31	30	98.1%	6.0	1.0	A
	Subtotal	293	262	89.4%	8.2	0.3	A
Total		917	754	82.2%	9.9	2.1	A

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	136	753.3%	36.2	4.3	D
	Through	124	301	242.6%	22.7	3.6	C
	Right Turn	112	80	71.8%	19.5	5.0	B
	Subtotal	254	517	203.5%	25.7	3.2	C
SB	Left Turn	76	64	84.2%	38.0	7.6	D
	Through	207	172	83.3%	18.4	2.1	B
	Right Turn	21	19	91.4%	9.1	4.7	A
	Subtotal	304	256	84.1%	22.8	3.5	C
EB	Left Turn	22	18	81.8%	44.6	12.8	D
	Through	276	230	83.2%	26.8	4.5	C
	Right Turn	301	230	76.3%	19.7	4.0	B
	Subtotal	599	477	79.7%	24.1	4.5	C
WB	Left Turn	18	14	75.6%	36.9	14.3	D
	Through	124	104	84.2%	18.4	6.4	B
	Right Turn	112	111	98.9%	14.6	5.6	B
	Subtotal	254	229	90.1%	17.9	5.2	B
Total		1,411	1,478	104.8%	23.6	2.4	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	196	195	99.4%	29.7	3.0	C
	Through	147	144	97.7%	8.3	1.9	A
	Right Turn						
	Subtotal	343	338	98.7%	20.7	1.8	C
SB	Left Turn						
	Through	494	432	87.4%	21.0	2.0	C
	Right Turn	63	43	68.6%	18.4	3.5	B
	Subtotal	557	475	85.3%	20.8	1.9	C
EB	Left Turn	142	131	92.1%	26.2	6.3	C
	Through						
	Right Turn	211	182	86.4%	13.4	2.9	B
	Subtotal	353	313	88.7%	18.7	3.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,253	1,127	89.9%	20.2	1.8	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	495	501	101.2%	5.9	2.0	A
	Right Turn	39	41	105.6%	4.6	1.8	A
	Subtotal	534	542	101.5%	5.8	1.9	A
SB	Left Turn	10	6	60.0%	5.2	3.3	A
	Through	516	410	79.5%	2.0	0.3	A
	Right Turn						
	Subtotal	526	416	79.2%	2.0	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	171	155	90.8%	26.0	8.1	D
	Through						
	Right Turn	28	20	70.0%	21.9	12.5	C
	Subtotal	199	175	87.8%	25.4	8.4	D
Total		1,259	1,133	90.0%	7.5	2.4	A

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	42	96.4%	10.4	2.2	B
	Through	343	336	98.0%	2.2	0.4	A
	Right Turn						
	Subtotal	387	378	97.8%	3.1	0.5	A
SB	Left Turn						
	Through	529	464	87.6%	5.6	1.4	A
	Right Turn	176	147	83.6%	4.0	1.6	A
	Subtotal	705	611	86.6%	5.2	1.4	A
EB	Left Turn						
	Through						
	Right Turn	47	44	94.5%	10.2	4.4	B
	Subtotal	47	44	94.5%	10.2	4.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,139	1,034	90.7%	4.7	0.8	A

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	101	83	82.0%	55.0	12.5	D
	Through	187	182	97.1%	34.0	5.8	C
	Right Turn	427	327	76.5%	106.2	61.4	F
	Subtotal	715	591	82.7%	76.3	36.9	E
SB	Left Turn	157	103	65.5%	130.1	66.1	F
	Through	368	345	93.8%	27.4	2.5	C
	Right Turn	9	9	102.2%	15.8	19.6	B
	Subtotal	534	457	85.6%	49.4	14.5	D
EB	Left Turn	9	7	80.0%	112.6	103.5	F
	Through	306	227	74.2%	86.3	46.2	F
	Right Turn	170	144	84.9%	9.5	4.4	A
	Subtotal	485	379	78.1%	58.5	33.2	E
WB	Left Turn	409	302	73.9%	105.3	41.4	F
	Through	205	142	69.1%	61.2	34.0	E
	Right Turn	100	67	66.8%	44.9	37.6	D
	Subtotal	714	511	71.5%	85.6	41.6	F
Total		2,448	1,938	79.2%	67.2	20.0	E

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	16	82.0%	60.7	49.2	E
	Through	8	6	80.0%	57.8	51.8	E
	Right Turn	409	346	84.6%	74.4	50.2	E
	Subtotal	437	369	84.4%	73.7	49.9	E
SB	Left Turn	6	3	53.3%	16.4	24.5	B
	Through	13	10	76.9%	19.8	13.1	B
	Right Turn	13	13	98.5%	10.0	7.9	A
	Subtotal	32	26	81.3%	19.8	8.0	B
EB	Left Turn	9	4	48.9%	56.0	30.6	E
	Through	852	523	61.4%	139.6	53.9	F
	Right Turn	29	18	63.4%	145.6	74.0	F
	Subtotal	890	546	61.3%	139.2	53.8	F
WB	Left Turn	478	359	75.1%	204.8	21.2	F
	Through	681	481	70.6%	179.7	28.1	F
	Right Turn	7	5	74.3%	169.5	22.9	F
	Subtotal	1,166	845	72.5%	190.1	22.8	F
Total		2,525	1,785	70.7%	147.6	34.5	F

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,460	94	33	159	56	153	79	2%	0%
	Through/Right	250	53	14	106	44	114	63	0%	0%
SB	Left Turn	1,409	335	92	505	197	529	184	7%	0%
	Left/Through	1,409	446	106	627	177	638	168	31%	0%
	Right Turn	300	248	80	379	71	325	1	1%	0%
WB	Left Turn	1,261	92	16	158	41	162	44	0%	0%
	Through	261	39	9	86	19	82	21	0%	0%

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	225	120	40	241	65	227	52	0%	0%
	Through	261	181	51	275	68	258	58	15%	7%
NB	Left Turn	300	146	71	345	122	298	86	0%	0%
	Through/Right	3,128	575	191	928	327	913	263	58%	0%
	Right Turn	3,128	568	203	941	344	922	271	35%	0%
WB	Through	212	149	23	223	24	213	15	0%	2%
	Through/Right	212	173	17	233	20	225	13	0%	3%
	Right Turn	212	144	25	211	29	197	27	0%	1%

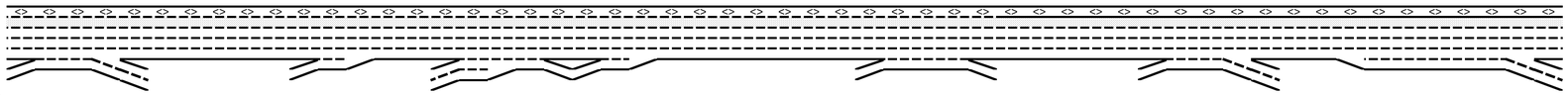
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	1,584	569	178	1,037	273	1,159	269	0%	1%
	Through	1,584	640	187	1,134	275	1,225	273	0%	1%
	Through/Right	589	540	59	681	45	638	22	0%	17%
	Right Turn	589	536	64	660	40	633	26	0%	11%
NB	Right Turn	1,067	16	13	37	26	38	30	0%	0%
NE	Shared	3,001	1,299	367	1,852	501	1,979	468	0%	2%
	Right Turn	3,001	356	342	842	490	967	475	0%	0%
	Right Turn	3,001	356	342	842	490	967	475	0%	0%
	Right Turns	330	310	20	383	14	355	1	5%	0%
SB	Left Turn	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

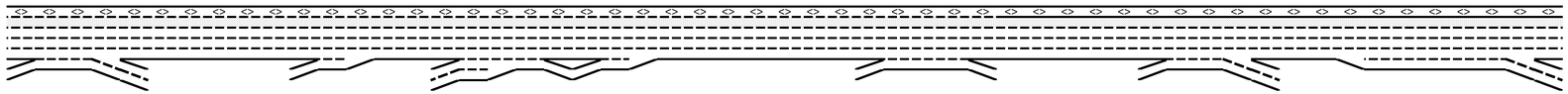
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	1,700	600	740	1,500	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	9,733	8,019	8,019	8,717	8,481	8,772	8,772	8,556	8,556	7,959	7,959
On Ramp Volume	330		698	980	291		699		534		
Off Ramp Volume	2,044			1,216			915		1,131		1,864
Express Lane Volume	1,655	1,363	1,363	1,482	1,442	1,491	1,491	1,455	1,455	1,353	1,353
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	8,078	6,656	6,656	7,235	7,039	7,281	7,281	7,101	7,101	6,606	6,606
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	5	4	4	4	4	4	5	4	5	5	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	8,912	7,342	7,342	7,981	7,765	8,032	8,032	7,834	7,834	7,287	7,287
Flow (pcphpl)	1,782	1,836	1,836	1,995	1,941	2,008	1,606	1,959	1,567	1,457	1,457
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	11,750	9,400	9,400	9,400	9,400	9,400	11,750	9,400	11,750	11,750	11,750
v/c ratio	0.76	0.78	0.78	0.85	0.83	0.85	0.68	0.83	0.67	0.62	0.62
Speed (mph)	62.9	62.3	62.3	60.0	60.8	59.8	64.4	60.6	64.6	65.0	65.0
Density (pcphpl)	28.3	29.5	29.5	33.3	31.9	33.6	24.9	32.3	24.3	22.4	22.4
LOS	D	D	D	D	D	D	C	D	C	C	C
Calculate Operations for Segment GP Lanes											
Flow (pcph)	9,284		8,130	9,007	8,076		8,820		8,436		
Lanes	5	4	4	4	4	4	5	4	5	5	5
Capacity (pcph)	11,750		9,400	9,400	9,400		11,750		11,750		
v/c ratio	0.79		0.86	0.96	0.86		0.75		0.72		
Flow Rate (pcphpl)	1,857		2,032	2,252	2,019		1,764		1,687		
Speed (mph)	62.0		59.3	54.7	59.6		63.1		63.8		
Density (pcphpl)	29.9		34.3	41.2	33.9		27.9		26.4		
LOS	D		D	E	D		D		D		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

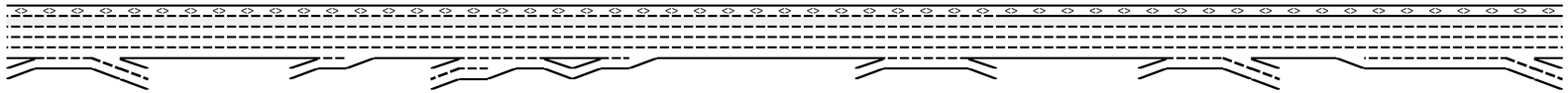
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	6,979			7,636			7,800		7,161		5,205
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.74			0.81			0.83		0.76		0.55
Flow Rate (pcphpl)	1,745			1,909			1,950		1,790		1,301
Speed (mph)	63.3			61.3			60.7		62.8		65.0
Density (pcphpl)	27.6			31.1			32.1		28.5		20.0
LOS	D			D			D		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



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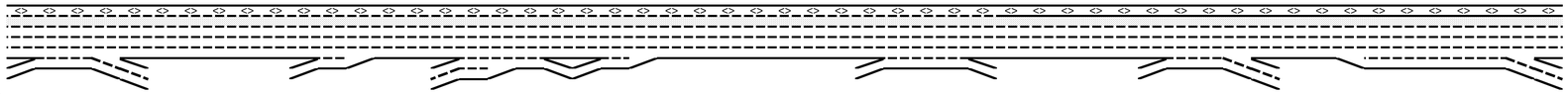
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,655	1,363	1,363	1,482	1,442	1,491	1,491	1,455	1,455	1,353	1,353
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,759	1,449	1,449	1,575	1,533	1,585	1,585	1,546	1,546	1,438	1,438
Flow Rate (pcphpl)	1,759	1,449	1,449	1,575	1,533	1,585	1,585	1,546	1,546	1,438	1,438
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	1.01	0.83	0.83	0.90	0.88	0.91	0.91	0.88	0.88	0.82	0.82
Calculate On Ramp Flow Rate											
Volume (vph)	330		698	980	291		699		534		
PHF	0.9		0.9	0.97	0.95		0.9		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	372		787	1,025	311		788		602		
Flow Rate (pcphpl)	372		787	513	311		788		602		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.18		0.37	0.24	0.15		0.38		0.29		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

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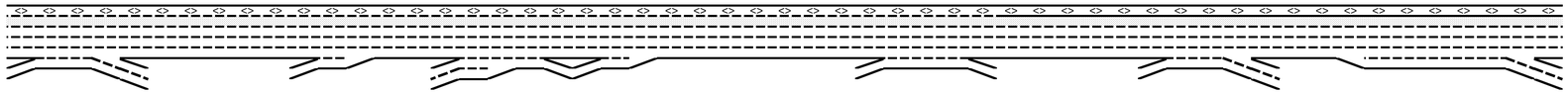
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate											
Volume (vph)	2,044			1,216			915		1,131		1,864
PHF	0.9			0.9			0.91		0.9		0.94
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	2,305			1,371			1,021		1,276		2,082
Flow Rate (pcphpl)	1,153			1,371			1,021		638		1,041
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.55			0.65			0.49		0.30		0.45
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			7,342		7,765						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.119		0.179						
v_{12} (pcph)			877		1,390						
v_3 (pcph)											
v_{34} (pcph)			6,466		6,376						
v_{12a} (pcph)			2,937		3,106						
v_{R12a} (pcph)			3,724		3,417						
Speed Index			0.44		0.39						
Area Speed			54.8		56.1						
Outer Lanes Volume			2,203		2,330						
Outer Lanes Speed			58.9		58.3						
Segment Speed			56.9		57.3						
v/c ratio			0.81		0.74						
Density			31.5		28.3						
LOS			D		D						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



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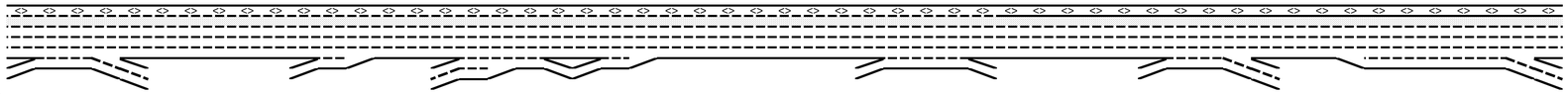
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											25.5
LOS											C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)											
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



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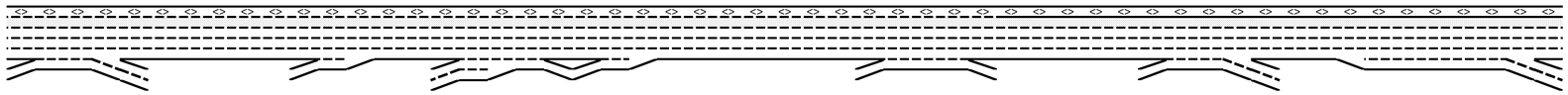
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)											
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



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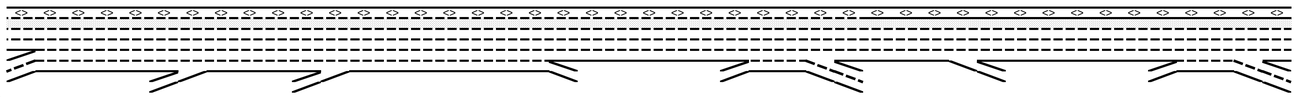
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.78	0.81		0.74	0.85		0.83		0.62	
Segment Density	-	29.5	31.5		28.3	33.6		32.3		22.4	25.5
Segment LOS	F	D	D		D	D		D		C	C
Over Capacity	Express Lanes										
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

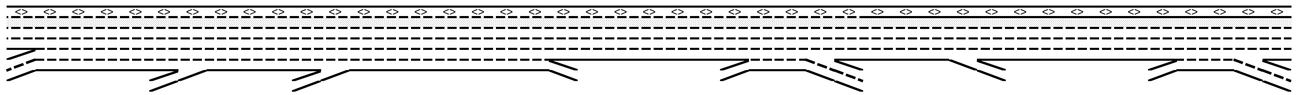
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	6,343	8,597	8,940	9,264	8,486	8,486	7,379	6,704	6,704
On Ramp Volume	2,254	343	324			713			543
Off Ramp Volume				778		1,820	675		2,032
Express Lane Volume	888	1,204	1,252	1,297	1,188	1,188	1,033	939	939
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	5,455	7,393	7,688	7,967	7,298	7,298	6,346	5,765	5,765
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	5	5	5	5	5	5	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,955	8,071	8,393	8,697	7,967	7,967	6,928	6,294	6,294
Flow (pcphpl)	1,191	1,614	1,679	1,739	1,593	1,593	1,732	1,573	1,259
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	11,750	11,750	11,750	11,750	11,750	11,750	9,400	9,400	11,750
v/c ratio	0.51	0.69	0.71	0.74	0.68	0.68	0.74	0.67	0.54
Speed (mph)	65.0	64.3	63.9	63.4	64.5	64.5	63.4	64.6	65.0
Density (pcphpl)	18.3	25.1	26.3	27.5	24.7	24.7	27.3	24.4	19.4
LOS	C	C	D	D	C	C	D	C	C
Calculate Operations for Segment GP Lanes									
Flow (pcph)	8,473	8,445	8,759			8,771			6,856
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.72	0.72	0.75			0.75			0.58
Flow Rate (pcphpl)	1,695	1,689	1,752			1,754			1,371
Speed (mph)	63.8	63.8	63.2			63.2			65.0
Density (pcphpl)	26.6	26.5	27.7			27.7			21.1
LOS	D	D	D			D			C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

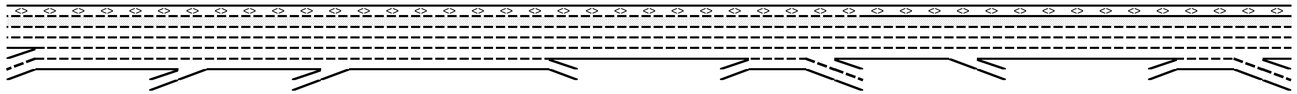
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				7,866		6,741	6,206		4,565
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.84		0.72	0.66		0.49
Flow Rate (pcphpl)				1,967		1,685	1,552		1,141
Speed (mph)				60.4		63.8	64.7		65.0
Density (pcphpl)				32.5		26.4	24.0		17.6
LOS				D		D	C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

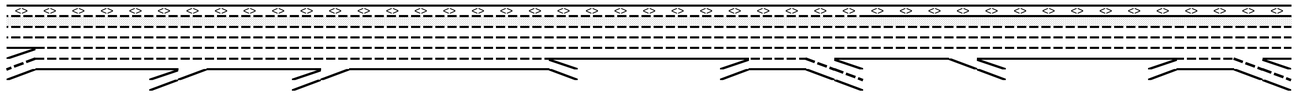
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	888	1,204	1,252	1,297	1,188	1,188	1,033	939	939
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	944	1,280	1,331	1,379	1,263	1,263	1,098	998	998
Flow Rate (pcphpl)	944	1,280	1,331	1,379	1,263	1,263	1,098	998	998
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.54	0.73	0.76	0.79	0.72	0.72	0.63	0.57	0.57
Calculate On Ramp Flow Rate									
Volume (vph)	2,254	343	324			713			543
PHF	0.94	0.93	0.9			0.9			0.98
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	2,518	374	365			804			562
Flow Rate (pcphpl)	1,259	374	365			804			562
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.55	0.18	0.17			0.38			0.27

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

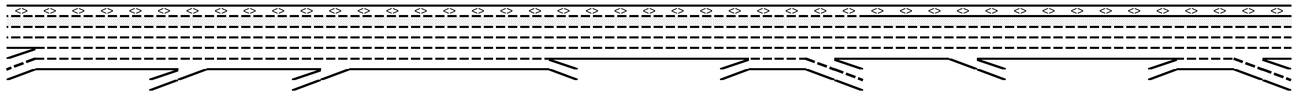
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				778		1,820	675		2,032
PHF				0.95		0.91	0.95		0.9
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				831		2,030	721		2,292
Flow Rate (pcphpl)				831		1,015	721		1,146
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.40		0.48	0.34		0.55
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		5,771	6,001						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.171	0.172						
v_{12} (pcph)		987	1,033						
v_3 (pcph)									
v_{34} (pcph)		4,784	4,968						
v_{12a} (pcph)		2,308	2,400						
v_{R12a} (pcph)		2,683	2,766						
Speed Index		0.37	0.36						
Area Speed		56.5	56.8						
Outer Lanes Volume		1,731	1,800						
Outer Lanes Speed		60.6	60.3						
Segment Speed		58.7	58.7						
v/c ratio		0.58	0.60						
Density		25.6	25.2						
LOS		C	C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

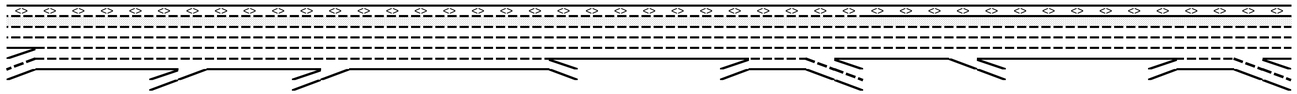
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				6,958			6,928		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.548			0.554		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				3,502			3,427		
v_3 (pcph)									
v_{34} (pcph)				3,455			3,500		
v_{12a} (pcph)				3,502			3,427		
Speed Index				0.37			0.36		
Area Speed				56.4			56.7		
Outer Lanes Volume				1,728			1,750		
Outer Lanes Speed				68.5			68.4		
Segment Speed				61.8			62.0		
v/c ratio				0.80			0.78		
Density				27.6			32.5		
LOS				C			D		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

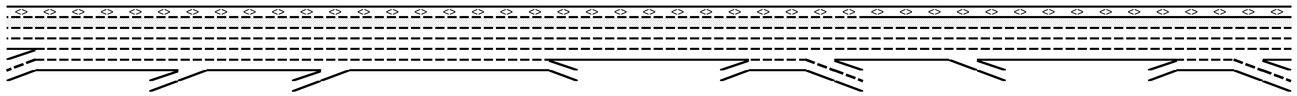
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8

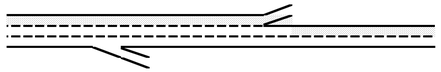


Key

<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.72	0.58	0.60	0.80	0.68		0.78	0.67	
Segment Density	26.6	25.6	25.2	27.6	24.7		32.5	24.4	
Segment LOS	D	C	C	C	C		D	C	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Location	1	2	3

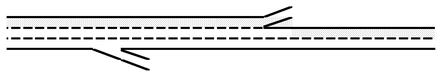


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	3,405	2,962	2,349
On Ramp Volume			
Off Ramp Volume	443	613	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	3,405	2,962	2,349
PHF	0.95	0.95	0.95
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	3,638	3,165	2,510
Flow (pcphpl)	1,213	1,055	1,255
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.52	0.44	0.52
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	18.7	15.1	17.9
LOS	C	B	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

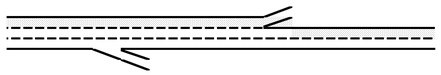


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	3,165	2,510	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.45	0.52	
Flow Rate (pcphpl)	1,055	1,255	
Speed (mph)	65.0	70.0	
Density (pcphpl)	16.2	17.9	
LOS	B	B	

Location	1	2	3



Key

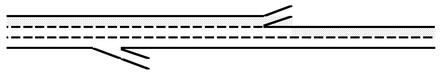
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative NoProject
Time Period: AM Peak Hour

Location	1	2	3

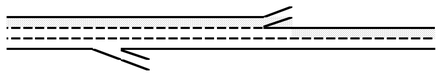


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	443	613	
PHF	0.95	0.95	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	473	655	
Flow Rate (pcphpl)	473	655	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.23	0.33	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		473	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

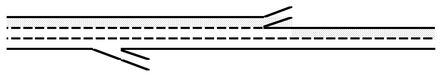


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	3,638		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.647		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.647		
v_{12} (pcph)	2,522		
v_3 (pcph)	1,116		
v_{34} (pcph)			
v_{12a} (pcph)	2,522		
Speed Index	0.34		
Area Speed	57.2		
Outer Lanes Volume	1,116		
Outer Lanes Speed	70.9		
Segment Speed	60.8		
v/c ratio	0.57		
Density	24.6		
LOS	C		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

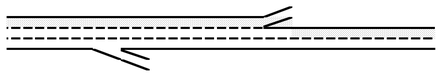


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

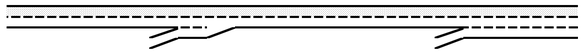
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.57	0.44	0.52
Segment Density	24.6	15.1	17.9
Segment LOS	C	B	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative NoProject
Time Period: AM Peak Hour

Location	1	2	3	4

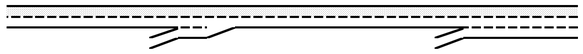


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	3,198	3,198	3,854	3,854
On Ramp Volume		656		457
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	3,198	3,198	3,854	3,854
PHF	0.92	0.92	0.92	0.92
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,528	3,528	4,252	4,252
Flow (pcphpl)	1,764	1,764	2,126	1,417
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.78	0.75	0.90	0.60
Speed (mph)	55.0	63.1	57.5	65.0
Density (pcphpl)	32.1	27.9	37.0	21.8
LOS	D	D	E	C
Operations for Segment GP Lanes				
Flow (pcph)		4,252		4,756
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.90		0.67
Flow Rate (pcphpl)		2,126		1,585
Speed (mph)		57.5		64.5
Density (pcphpl)		37.0		24.6
LOS		E		C

Location	1	2	3	4

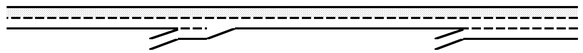


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

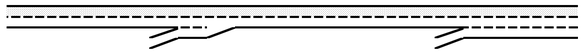


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		656		457
PHF		0.92		0.92
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		724		504
Flow Rate (pcphpl)		724		504
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.34		0.24

Location	1	2	3	4

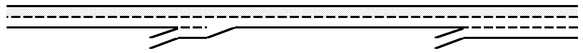


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,528		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,528		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,528		
v_{R12a} (pcph)		4,252		
Speed Index		0.53		
Area Speed		52.9		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		52.9		
v/c ratio		0.92		
Density		33.6		
LOS		D		

Location	1	2	3	4

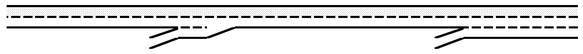


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

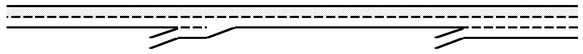


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

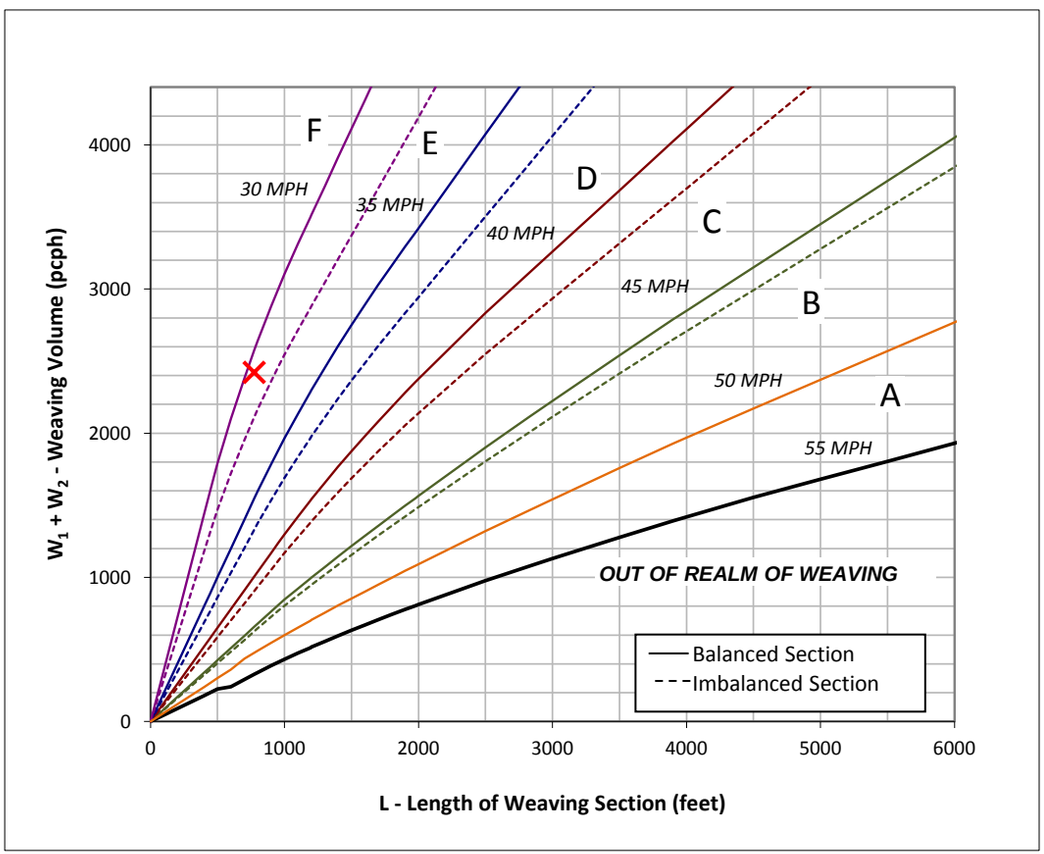
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.78	0.92	0.90	0.67
Segment Density	32.1	33.6	37.0	24.6
Segment LOS	D	D	E	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,408	Volume (vph)*	330	Volume (vph)*	2,044
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,812	Volume (pcph)	337	Volume (pcph)	2,085



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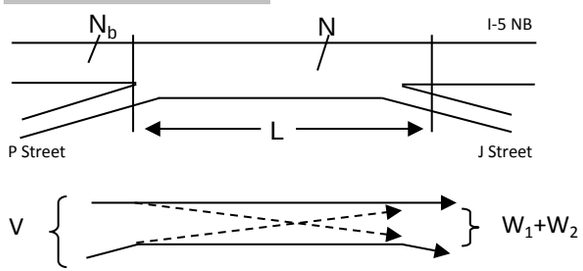


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	30.8
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,897
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

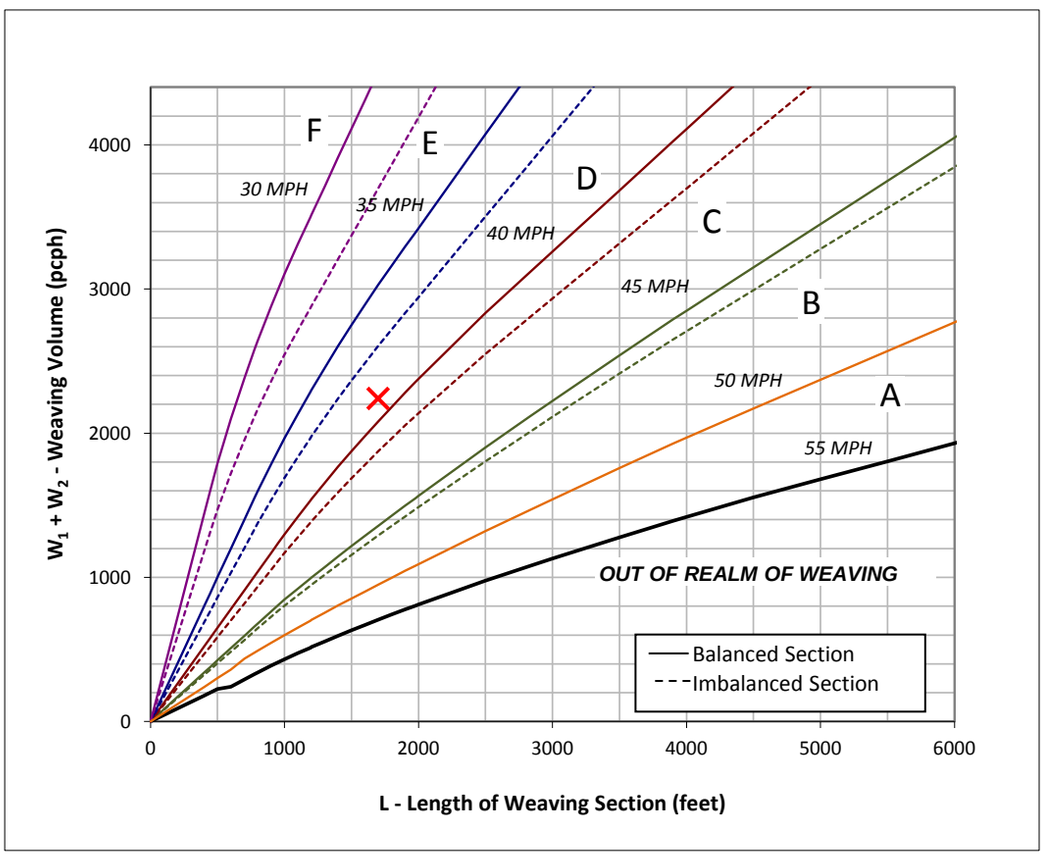
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,700

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,215	Volume (vph)*	980	Volume (vph)*	1,216
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,609	Volume (pcph)	1,000	Volume (pcph)	1,240



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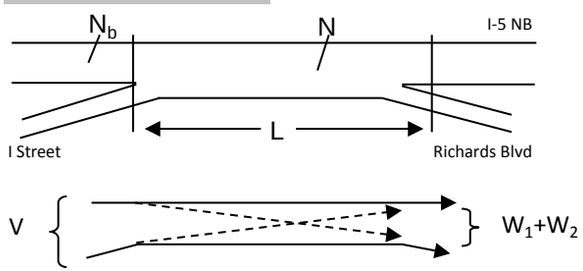


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.5
4. Weaving Intensity Factor (k)	2.67
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,056
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

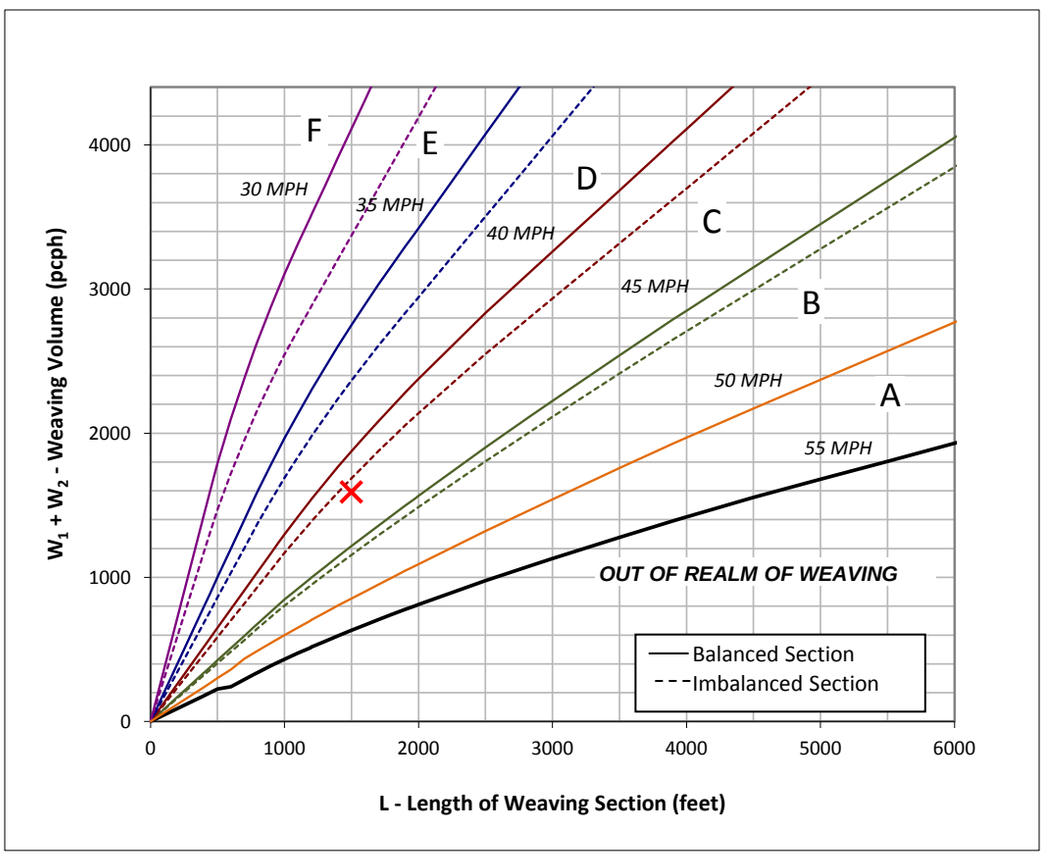
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,500

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,980	Volume (vph)*	664	Volume (vph)*	897
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,363	Volume (pcph)	677	Volume (pcph)	915



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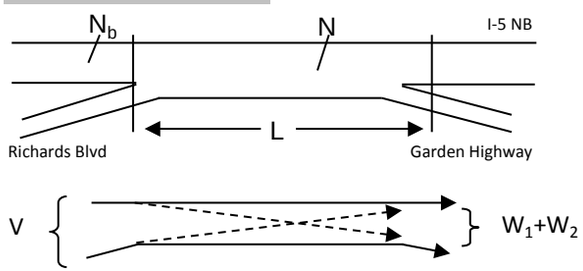


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	40.9
4. Weaving Intensity Factor (k)	2.45
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,869
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

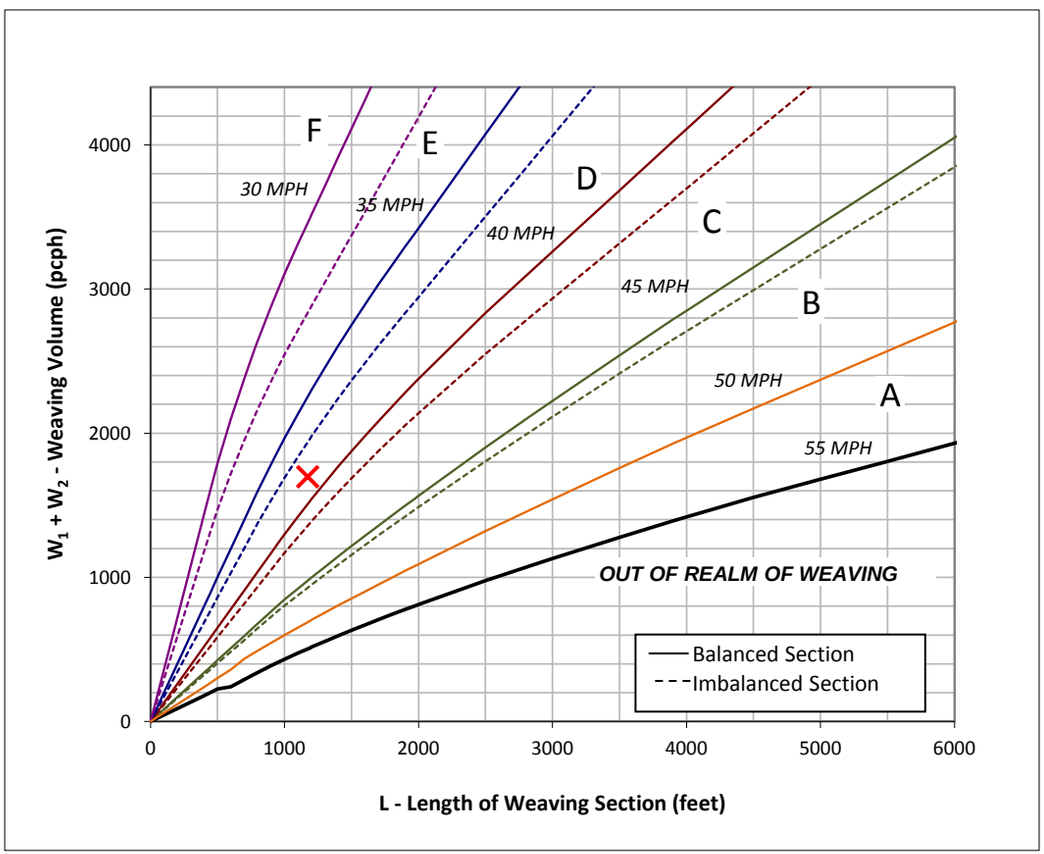
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,635	Volume (vph)*	534	Volume (vph)*	1,131
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,001	Volume (pcph)	545	Volume (pcph)	1,154



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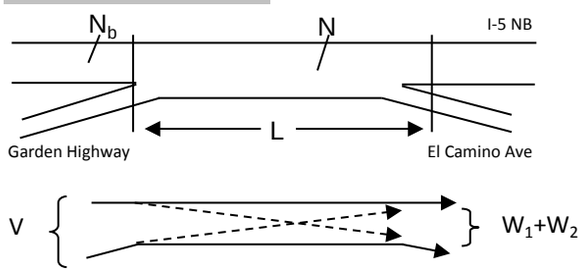


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	38.7
4. Weaving Intensity Factor (k)	2.60
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,775
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

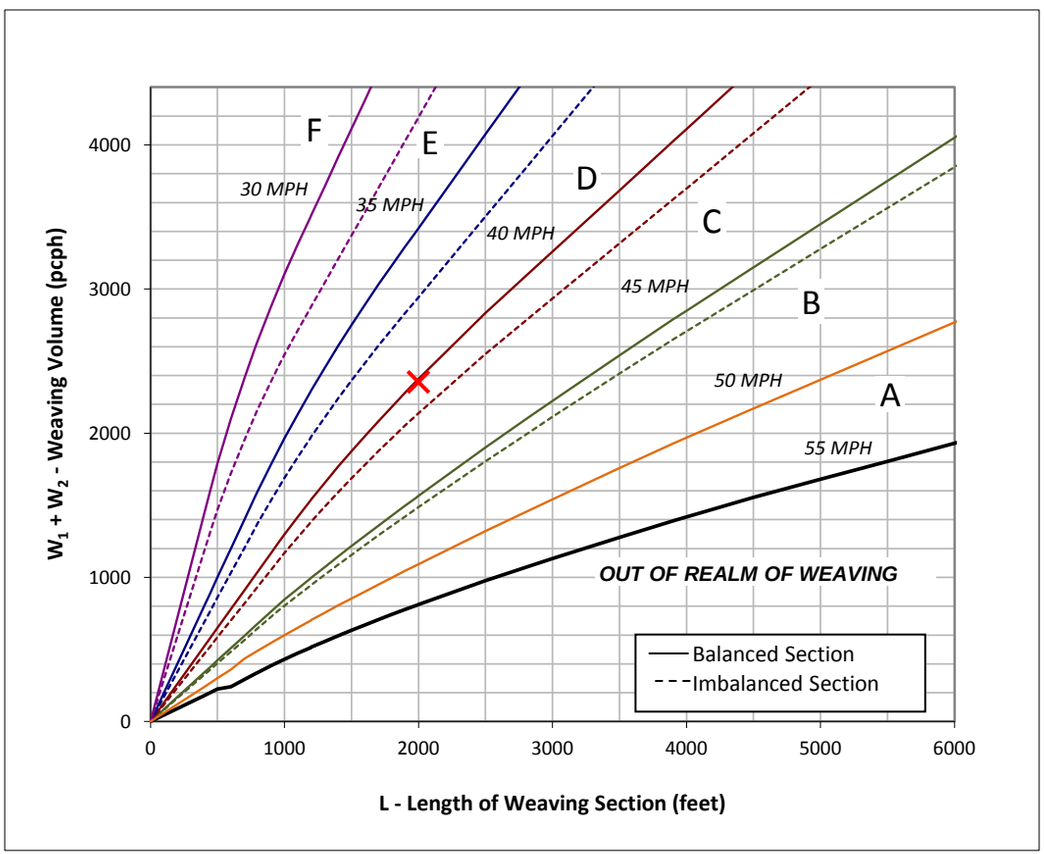
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,011	Volume (vph)*	635	Volume (vph)*	1,674
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,396	Volume (pcph)	647	Volume (pcph)	1,708



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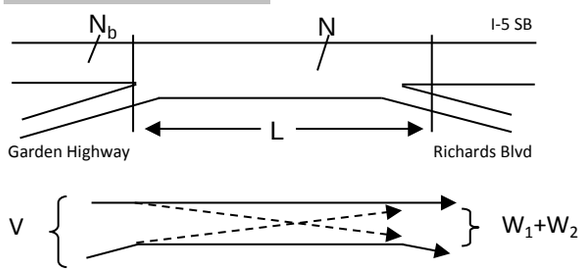


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   40 MPH and **45 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **40.1**
4. Weaving Intensity Factor (k) **2.52**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,876**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

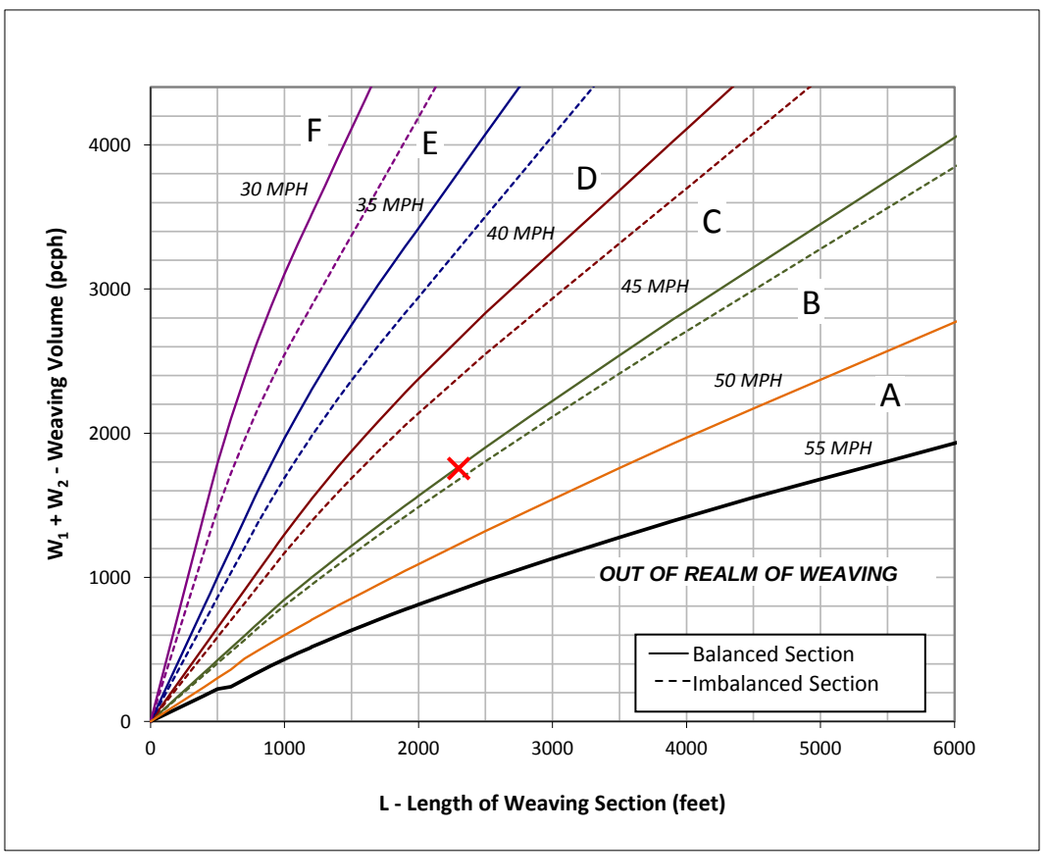
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

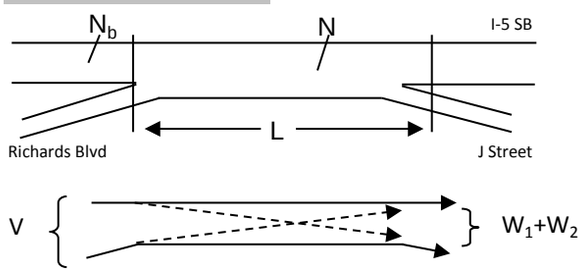
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project AM Pk Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,308	Volume (vph)*	521	Volume (vph)*	1,199
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,611	Volume (pcph)	532	Volume (pcph)	1,223



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	45.1
4. Weaving Intensity Factor (k)	1.81
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,408
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	920	914	99.4%	27.5	1.9	C
	Through	69	81	117.7%	30.5	6.9	C
	Right Turn	168	164	97.9%	7.7	1.0	A
	Subtotal	1,157	1,160	100.3%	24.9	2.2	C
EB	Left Turn						
	Through	663	548	82.7%	137.3	44.9	F
	Right Turn	107	77	72.1%	99.2	45.3	F
	Subtotal	770	625	81.2%	132.7	44.8	F
WB	Left Turn	760	522	68.7%	13.8	3.8	B
	Through	278	231	83.2%	5.3	1.7	A
	Right Turn						
	Subtotal	1,038	754	72.6%	11.2	3.2	B
Total		2,965	2,539	85.6%	47.0	10.1	D

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	74	108.8%	25.3	6.2	C
	Through	10	13	128.0%	43.0	35.3	D
	Right Turn	507	512	100.9%	23.2	14.7	C
	Subtotal	585	598	102.3%	24.0	13.2	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	499	382	76.6%	58.7	2.8	E
	Through	1,084	1,059	97.7%	5.8	2.4	A
	Right Turn						
	Subtotal	1,583	1,441	91.0%	19.9	1.8	B
WB	Left Turn						
	Through	970	667	68.8%	31.0	4.8	C
	Right Turn	1,049	724	69.1%	17.7	1.5	B
	Subtotal	2,019	1,392	68.9%	24.1	3.2	C
Total		4,187	3,431	81.9%	22.3	3.6	C

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	248	205	82.6%	72.8	40.9	E
	Through	40	30	74.0%	67.3	46.6	E
	Right Turn	111	102	91.5%	20.3	18.5	C
	Subtotal	399	336	84.2%	56.5	34.7	E
SB	Left Turn	43	38	89.3%	38.7	11.5	D
	Through	64	67	104.4%	42.6	10.3	D
	Right Turn	106	111	104.9%	20.3	6.1	C
	Subtotal	213	216	101.6%	31.0	7.4	C
EB	Left Turn	22	16	70.9%	39.1	18.3	D
	Through	1,145	1,145	100.0%	30.8	8.1	C
	Right Turn	424	427	100.8%	5.3	1.1	A
	Subtotal	1,591	1,588	99.8%	24.0	6.2	C
WB	Left Turn	105	77	73.1%	86.1	9.0	F
	Through	1,665	1,128	67.8%	73.2	14.6	E
	Right Turn	14	12	88.6%	61.6	21.6	E
	Subtotal	1,784	1,218	68.3%	73.9	14.3	E
Total		3,987	3,358	84.2%	45.5	8.9	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	135	116	86.2%	61.4	30.4	E
	Through	6	6	93.3%	20.3	16.0	C
	Right Turn	30	27	90.7%	17.1	12.7	B
	Subtotal	171	149	87.3%	52.7	27.3	D
SB	Left Turn	63	62	97.8%	31.3	6.4	C
	Through	18	19	106.7%	47.8	30.8	D
	Right Turn	208	192	92.3%	26.8	17.0	C
	Subtotal	289	273	94.4%	29.1	14.0	C
EB	Left Turn	220	204	92.9%	51.2	8.2	D
	Through	969	939	96.9%	19.4	6.0	B
	Right Turn	110	110	100.0%	18.7	7.0	B
	Subtotal	1,299	1,254	96.5%	24.5	5.9	C
WB	Left Turn	15	14	96.0%	45.3	18.2	D
	Through	1,441	947	65.7%	57.3	20.1	E
	Right Turn	20	13	66.0%	50.6	29.9	D
	Subtotal	1,476	975	66.0%	57.2	20.0	E
Total		3,235	2,650	81.9%	38.6	10.6	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	289	299	103.5%	40.8	5.8	D
	Through	391	398	101.7%	45.7	5.9	D
	Right Turn	20	26	132.0%	39.6	7.5	D
	Subtotal	700	723	103.3%	43.5	5.5	D
SB	Left Turn	164	104	63.2%	281.0	53.2	F
	Through	495	294	59.3%	270.2	36.6	F
	Right Turn	69	42	60.3%	267.0	31.7	F
	Subtotal	728	439	60.3%	272.1	39.0	F
EB	Left Turn	39	43	110.8%	53.6	10.9	D
	Through	934	894	95.8%	34.6	5.8	C
	Right Turn	194	184	94.6%	35.5	6.9	D
	Subtotal	1,167	1,121	96.1%	35.5	5.8	D
WB	Left Turn	15	8	53.3%	101.2	35.3	F
	Through	1,229	811	66.0%	110.7	11.6	F
	Right Turn	216	140	64.6%	120.8	18.6	F
	Subtotal	1,460	958	65.6%	112.1	12.3	F
Total		4,055	3,242	79.9%	91.7	5.4	F

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	17	112.0%	29.0	11.1	C
	Through	128	121	94.7%	27.6	5.7	C
	Right Turn	68	66	97.1%	9.1	2.3	A
	Subtotal	211	204	96.7%	21.9	5.0	C
SB	Left Turn	5	4	72.0%	17.7	24.4	B
	Through	148	150	101.4%	24.7	2.8	C
	Right Turn	127	129	101.4%	28.7	4.0	C
	Subtotal	280	282	100.9%	26.6	2.8	C
EB	Left Turn	95	74	77.9%	39.6	7.8	D
	Through	991	928	93.6%	25.2	2.2	C
	Right Turn	32	30	92.5%	21.1	4.6	C
	Subtotal	1,118	1,032	92.3%	26.1	2.2	C
WB	Left Turn	140	94	66.9%	91.6	14.7	F
	Through	1,318	951	72.2%	83.6	21.6	F
	Right Turn	15	12	80.0%	71.1	48.7	E
	Subtotal	1,473	1,057	71.7%	84.2	20.8	F
Total		3,082	2,575	83.5%	49.2	7.8	D

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	251	97.4%	57.9	10.1	E
	Through	169	165	97.5%	41.0	5.9	D
	Right Turn	105	101	96.0%	28.8	7.7	C
	Subtotal	532	517	97.1%	46.6	5.1	D
SB	Left Turn	33	32	98.2%	59.0	23.2	E
	Through	218	213	97.8%	51.1	13.3	D
	Right Turn	68	63	92.9%	47.9	11.7	D
	Subtotal	319	309	96.8%	51.8	9.6	D
EB	Left Turn	40	34	84.0%	78.0	22.9	E
	Through	891	739	82.9%	71.7	14.8	E
	Right Turn	133	100	75.2%	74.9	16.8	E
	Subtotal	1,064	872	82.0%	72.2	14.7	E
WB	Left Turn	510	364	71.4%	156.9	21.5	F
	Through	1,149	926	80.6%	77.2	14.6	E
	Right Turn	5	4	88.0%	67.2	25.9	E
	Subtotal	1,664	1,295	77.8%	99.7	16.4	F
Total		3,579	2,993	83.6%	77.4	8.1	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	34.6	48.8	C
	Through	57	61	107.4%	26.9	8.5	C
	Right Turn	251	241	96.1%	9.9	0.8	A
	Subtotal	313	305	97.5%	13.5	2.0	B
SB	Left Turn	217	206	94.7%	33.8	4.7	C
	Through	75	67	89.1%	23.1	6.3	C
	Right Turn	149	136	91.5%	21.4	8.1	C
	Subtotal	441	409	92.7%	28.1	4.7	C
EB	Left Turn	36	30	83.3%	42.3	12.2	D
	Through	879	749	85.2%	32.7	4.6	C
	Right Turn	57	45	79.3%	21.6	6.3	C
	Subtotal	972	824	84.8%	32.3	4.7	C
WB	Left Turn	337	332	98.5%	59.3	9.4	E
	Through	1,440	1,311	91.0%	40.6	11.8	D
	Right Turn	5	6	112.0%	15.8	16.4	B
	Subtotal	1,782	1,648	92.5%	44.4	10.7	D
Total		3,508	3,187	90.8%	36.1	5.6	D

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	44	116.8%	35.7	6.1	D
	Through	5	4	72.0%	25.1	31.8	C
	Right Turn	18	15	84.4%	17.6	12.0	B
	Subtotal	61	63	103.6%	31.8	7.5	C
SB	Left Turn	27	18	66.7%	29.7	8.1	C
	Through	5	4	80.0%	30.0	22.6	C
	Right Turn	58	55	94.5%	18.1	4.9	B
	Subtotal	90	77	85.3%	22.1	5.2	C
EB	Left Turn	21	16	76.2%	37.3	11.9	D
	Through	1,280	1,132	88.5%	18.3	3.0	B
	Right Turn	46	43	93.0%	19.1	5.7	B
	Subtotal	1,347	1,191	88.4%	18.6	3.1	B
WB	Left Turn	29	22	74.5%	55.3	15.8	E
	Through	1,686	1,668	99.0%	30.6	12.4	C
	Right Turn	5	6	120.0%	17.6	20.8	B
	Subtotal	1,720	1,696	98.6%	30.9	12.4	C
Total		3,218	3,027	94.1%	25.9	7.7	C

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	50	47	94.4%	11.8	11.8	B
	Right Turn	46	44	95.7%	3.6	0.8	A
	Subtotal	96	91	95.0%	7.5	5.7	A
SB	Left Turn	74	71	96.2%	9.0	0.6	A
	Through	416	412	99.1%	9.2	0.6	A
	Right Turn						
	Subtotal	490	484	98.7%	9.1	0.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	50	51	102.4%	22.0	22.6	C
	Through						
	Right Turn	297	264	89.0%	18.1	23.5	C
	Subtotal	347	316	91.0%	18.7	23.1	C
Total		933	890	95.4%	12.3	8.7	B

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	321	292	90.8%	36.1	22.2	E
	Through	483	480	99.4%	46.2	26.0	E
	Right Turn	12	12	103.3%	41.5	30.3	E
	Subtotal	816	784	96.1%	42.4	24.6	E
SB	Left Turn	189	128	67.7%	10.9	1.0	B
	Through	502	358	71.3%	18.0	2.0	C
	Right Turn	13	10	80.0%	15.5	9.6	C
	Subtotal	704	496	70.5%	16.2	1.5	C
EB	Left Turn	8	8	95.0%	9.0	5.1	A
	Through	50	43	86.4%	11.6	1.4	B
	Right Turn	165	162	98.2%	7.1	1.0	A
	Subtotal	223	213	95.4%	8.2	0.7	A
WB	Left Turn	3	3	106.7%	6.0	5.5	A
	Through	39	35	89.2%	9.7	0.7	A
	Right Turn	209	206	98.6%	9.5	2.7	A
	Subtotal	251	244	97.2%	9.6	2.3	A
Total		1,994	1,737	87.1%	26.1	11.1	D

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	531	369	69.5%	46.6	10.4	D
	Right Turn	32	18	55.0%	42.3	21.6	D
	Subtotal	563	386	68.6%	46.6	10.6	D
SB	Left Turn	623	434	69.7%	163.2	17.5	F
	Through	671	489	72.9%	50.4	24.9	D
	Right Turn	20	16	80.0%	58.4	48.1	E
	Subtotal	1,314	940	71.5%	102.3	17.9	F
EB	Left Turn	40	40	101.0%	89.5	97.4	F
	Through	9	6	66.7%	100.0	196.6	F
	Right Turn	11	10	94.5%	67.2	85.4	E
	Subtotal	60	57	94.7%	86.7	93.1	F
WB	Left Turn	83	95	114.7%	46.3	19.5	D
	Through	3	4	120.0%	22.5	26.9	C
	Right Turn	457	454	99.3%	16.7	3.0	B
	Subtotal	543	552	101.7%	21.6	2.6	C
Total		2,480	1,935	78.0%	67.0	8.1	E

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	146	127	86.8%	13.7	2.7	B
	Through	382	340	89.0%	10.1	0.7	B
	Right Turn	42	40	95.2%	7.4	2.8	A
	Subtotal	570	507	88.9%	10.9	0.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	178	135	76.0%	39.5	5.0	E
	Through	622	466	74.9%	38.8	4.4	E
	Right Turn						
	Subtotal	800	601	75.1%	38.9	4.5	E
WB	Left Turn						
	Through	431	453	105.1%	20.1	11.0	C
	Right Turn	6	8	126.7%	24.6	31.1	C
	Subtotal	437	460	105.4%	20.1	11.3	C
Total		1,807	1,568	86.8%	24.4	4.2	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	88.3	128.4	F
	Through	233	148	63.3%	16.8	10.3	B
	Right Turn						
	Subtotal	238	150	62.9%	18.4	11.2	B
SB	Left Turn						
	Through	794	614	77.3%	41.3	20.9	D
	Right Turn	8	6	75.0%	79.3	148.4	E
	Subtotal	802	620	77.3%	41.8	21.8	D
EB	Left Turn	138	85	61.4%	69.2	35.5	E
	Through						
	Right Turn	582	381	65.4%	31.0	9.5	C
	Subtotal	720	466	64.7%	38.5	9.6	D
WB	Left Turn	105	64	61.0%	45.8	6.1	D
	Through	676	332	49.1%	65.8	13.8	E
	Right Turn	329	233	70.8%	44.5	18.3	D
	Subtotal	1,110	628	56.6%	55.8	12.2	E
Total		2,870	1,863	64.9%	43.8	10.9	D

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	12	68.2%	52.2	30.5	D
	Through	674	535	79.3%	37.9	8.0	D
	Right Turn	86	73	85.1%	14.6	3.1	B
	Subtotal	777	620	79.7%	35.5	7.1	D
SB	Left Turn	63	41	65.4%	74.6	15.0	E
	Through	718	472	65.8%	58.1	15.9	E
	Right Turn	5	2	48.0%	17.8	30.0	B
	Subtotal	786	516	65.6%	59.6	15.2	E
EB	Left Turn	5	3	56.0%	11.4	17.6	B
	Through	35	32	90.3%	16.9	6.9	B
	Right Turn	5	5	104.0%	20.2	21.5	C
	Subtotal	45	40	88.0%	19.1	9.8	B
WB	Left Turn	212	94	44.5%	223.4	79.0	F
	Through	5	3	56.0%	42.0	55.9	D
	Right Turn	22	12	56.4%	191.8	72.0	F
	Subtotal	239	110	45.9%	219.6	76.5	F
Total		1,847	1,285	69.6%	59.4	12.7	E

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	20.1	24.6	C
	Through	560	339	60.6%	23.0	1.8	C
	Right Turn	211	141	66.9%	12.3	8.4	B
	Subtotal	776	484	62.3%	19.9	2.7	B
SB	Left Turn	41	22	54.6%	41.6	16.8	D
	Through	661	369	55.8%	48.8	16.4	D
	Right Turn	148	76	51.4%	60.7	26.0	E
	Subtotal	850	467	55.0%	50.6	17.2	D
EB	Left Turn	42	29	69.5%	62.1	57.2	E
	Through	82	63	77.1%	59.9	55.0	E
	Right Turn	60	48	80.0%	45.9	54.4	D
	Subtotal	184	140	76.3%	55.4	53.5	E
WB	Left Turn	5	3	64.0%	107.2	114.1	F
	Through	86	53	61.4%	133.7	84.0	F
	Right Turn	10	7	68.0%	102.3	148.7	F
	Subtotal	101	63	62.2%	125.4	86.8	F
Total		1,911	1,154	60.4%	41.1	10.8	D

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	491	342	69.6%	35.8	16.6	D
	Through	1,041	764	73.4%	22.8	7.4	C
	Right Turn	9	6	71.1%	19.7	16.0	B
	Subtotal	1,541	1,112	72.1%	26.8	9.9	C
EB	Left Turn	236	145	61.4%	50.3	37.5	D
	Through	62	42	67.1%	69.9	60.6	E
	Right Turn	36	21	57.8%	43.3	35.6	D
	Subtotal	334	207	62.0%	52.4	39.5	D
WB	Left Turn	215	196	91.0%	37.8	7.5	D
	Through	92	82	89.1%	41.6	10.4	D
	Right Turn	2	2	100.0%	17.9	13.2	B
	Subtotal	309	280	90.5%	39.0	8.5	D
Total		2,184	1,598	73.2%	31.7	10.5	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	17	71.7%	68.2	80.0	E
	Through	880	653	74.2%	42.3	15.6	D
	Right Turn	185	171	92.3%	12.3	4.8	B
	Subtotal	1,089	841	77.2%	36.4	12.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	124	86	69.0%	59.7	26.5	E
	Through	429	280	65.4%	55.6	24.8	E
	Right Turn						
	Subtotal	553	366	66.2%	56.4	24.9	E
WB	Left Turn						
	Through	285	265	93.1%	26.2	21.7	C
	Right Turn	30	26	88.0%	27.8	27.6	C
	Subtotal	315	292	92.6%	26.5	22.4	C
Total		1,957	1,499	76.6%	38.9	14.8	D

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	378	358	94.7%	50.2	13.2	D
	Through	713	580	81.3%	81.3	20.3	F
	Right Turn						
	Subtotal	1,091	938	86.0%	69.4	9.3	E
SB	Left Turn						
	Through						
	Right Turn	964	581	60.2%	49.4	6.1	D
	Subtotal	964	581	60.2%	49.4	6.1	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,603	2,093	80.4%	22.6	2.5	C
	Right Turn	47	36	76.6%	25.2	15.9	C
	Subtotal	2,650	2,129	80.3%	22.6	2.7	C
Total		4,705	3,648	77.5%	38.8	3.4	D

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	151	58.6%	93.5	16.9	F
	Through	680	400	58.9%	84.7	13.5	F
	Right Turn						
	Subtotal	938	552	58.8%	87.1	14.1	F
SB	Left Turn						
	Through	490	305	62.3%	57.7	8.4	E
	Right Turn	236	147	62.2%	43.0	9.3	D
	Subtotal	726	452	62.3%	53.2	8.1	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	14	77.8%	54.0	11.5	D
	Through	2,156	1,841	85.4%	52.3	2.8	D
	Right Turn	96	86	89.6%	54.4	8.6	D
	Subtotal	2,270	1,941	85.5%	52.4	2.8	D
Total		3,934	2,944	74.8%	59.0	3.2	E

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	1,014	788	77.7%	29.0	7.3	C
	Right Turn	278	206	74.0%	30.2	6.3	C
	Subtotal	1,292	994	76.9%	29.4	6.0	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	247	213	86.2%	20.5	4.4	C
	Through	1,992	1,730	86.8%	28.1	4.8	C
	Right Turn						
	Subtotal	2,239	1,942	86.8%	27.3	4.5	C
Total		3,531	2,936	83.1%	28.0	4.3	C

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	524	371	70.8%	124.2	48.2	F
	Through	951	791	83.2%	65.8	17.0	E
	Right Turn						
	Subtotal	1,475	1,162	78.8%	84.4	26.0	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,715	1,536	89.5%	50.1	27.4	D
	Right Turn	138	110	80.0%	66.0	30.7	E
	Subtotal	1,853	1,646	88.8%	51.0	27.6	D
Total		3,328	2,808	84.4%	64.3	17.5	E

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	4	80.0%	29.6	47.4	C
	Through	781	754	96.5%	50.1	15.2	D
	Right Turn	26	23	89.2%	33.2	20.0	C
	Subtotal	812	781	96.2%	49.5	14.7	D
SB	Left Turn	272	233	85.7%	56.3	15.0	E
	Through	334	308	92.3%	63.2	14.0	E
	Right Turn						
	Subtotal	606	542	89.4%	60.3	14.1	E
EB	Left Turn	5	5	96.0%	22.6	16.4	C
	Through	731	697	95.3%	54.8	19.9	D
	Right Turn	575	574	99.8%	53.5	10.6	D
	Subtotal	1,311	1,275	97.3%	54.2	15.3	D
NB	Left Turn						
	Through						
	Right Turn	150	153	102.1%	10.6	3.2	B
	Subtotal	150	153	102.1%	10.6	3.2	B
Total		2,879	2,751	95.6%	51.7	13.4	D

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	371	364	98.2%	30.6	13.4	C
	Right Turn	452	449	99.3%	16.7	4.0	B
	Subtotal	823	813	98.8%	23.1	8.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	720	607	84.3%	58.4	28.0	E
	Through	1,226	1,167	95.2%	21.9	6.9	C
	Right Turn	93	82	88.2%	21.6	8.0	C
	Subtotal	2,039	1,856	91.0%	33.8	13.9	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,862	2,670	93.3%	30.5	11.0	C

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	96	80	83.8%	11.5	1.2	B
	Through	1,165	957	82.2%	11.4	0.5	B
	Right Turn						
	Subtotal	1,261	1,038	82.3%	11.4	0.5	B
EB	Left Turn						
	Through	1,316	1,278	97.1%	11.2	1.0	B
	Right Turn	402	342	85.0%	10.8	1.2	B
	Subtotal	1,718	1,619	94.2%	11.1	1.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,979	2,657	89.2%	11.2	0.6	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	536	405	75.6%	17.9	6.5	B
	Right Turn	165	125	75.6%	14.1	9.0	B
	Subtotal	701	530	75.6%	17.0	6.9	B
SB	Left Turn	268	207	77.3%	97.3	18.4	F
	Through	516	421	81.6%	74.6	15.5	E
	Right Turn						
	Subtotal	784	628	80.1%	82.1	15.2	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	270	122	45.3%	133.4	55.4	F
	Through						
	Right Turn	142	74	51.8%	45.5	24.3	D
	Subtotal	412	196	47.6%	99.7	40.5	F
Total		1,897	1,354	71.4%	58.9	10.6	E

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	34	58.6%	41.0	29.8	D
	Through	396	248	62.7%	9.8	2.1	A
	Right Turn	158	85	53.9%	6.7	2.9	A
	Subtotal	612	368	60.1%	11.9	3.6	B
SB	Left Turn	294	192	65.3%	75.5	12.2	E
	Through	476	294	61.8%	91.3	22.9	F
	Right Turn	80	60	75.0%	93.1	33.1	F
	Subtotal	850	546	64.3%	86.2	19.7	F
EB	Left Turn	8	4	50.0%	20.0	23.4	C
	Through	268	193	71.9%	42.7	16.4	D
	Right Turn	157	111	70.6%	46.7	25.2	D
	Subtotal	433	308	71.0%	44.3	19.7	D
WB	Left Turn	217	87	40.0%	208.3	93.6	F
	Through	274	126	46.0%	84.7	27.4	F
	Right Turn	198	101	51.1%	77.3	35.0	E
	Subtotal	689	314	45.6%	111.7	22.1	F
Total		2,584	1,536	59.4%	63.5	7.7	E

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	96.0%	54.4	14.9	D
	Through	469	471	100.5%	32.6	4.0	C
	Right Turn	96	89	92.9%	6.8	1.7	A
	Subtotal	570	565	99.2%	28.8	3.7	C
SB	Left Turn	161	161	100.1%	49.2	8.4	D
	Through	416	406	97.7%	22.4	2.5	C
	Right Turn	486	495	101.8%	19.2	4.4	B
	Subtotal	1,063	1,062	99.9%	25.1	2.9	C
EB	Left Turn	368	352	95.8%	49.5	8.6	D
	Through	102	100	98.0%	25.9	5.4	C
	Right Turn	5	8	168.0%	5.5	5.6	A
	Subtotal	475	461	97.0%	43.6	7.0	D
WB	Left Turn	205	197	96.0%	55.2	11.7	E
	Through	417	405	97.2%	33.0	6.2	C
	Right Turn	210	214	101.9%	15.5	5.5	B
	Subtotal	832	816	98.1%	33.9	4.1	C
Total		2,940	2,904	98.8%	31.2	2.7	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	331	359	108.4%	41.6	2.2	D
	Right Turn	79	75	94.7%	25.0	7.2	C
	Subtotal	411	434	105.5%	38.7	2.8	D
SB	Left Turn	248	257	103.7%	36.8	3.6	D
	Through	472	479	101.4%	38.5	4.1	D
	Right Turn	213	210	98.4%	31.9	5.0	C
	Subtotal	933	946	101.4%	36.6	3.4	D
EB	Left Turn	59	61	103.7%	48.8	12.5	D
	Through	295	281	95.3%	33.0	3.4	C
	Right Turn	5	7	136.0%	23.7	21.2	C
	Subtotal	359	349	97.3%	35.7	3.1	D
WB	Left Turn	76	82	107.4%	54.2	6.1	D
	Through	618	608	98.4%	40.3	4.9	D
	Right Turn	120	122	101.7%	34.0	10.4	C
	Subtotal	814	812	99.7%	40.7	5.3	D
Total		2,517	2,540	100.9%	38.2	2.7	D

Intersection 17 **12th St/E** **St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	152	137	90.0%	10.5	1.3	B
	Through	1,270	1,256	98.9%	8.2	0.7	A
	Right Turn	25	21	84.8%	4.6	2.6	A
	Subtotal	1,447	1,414	97.7%	8.4	0.7	A
EB	Left Turn						
	Through	364	352	96.6%	17.7	2.6	B
	Right Turn	21	24	116.2%	16.0	9.8	B
	Subtotal	385	376	97.7%	17.5	2.8	B
WB	Left Turn	33	28	84.8%	26.3	8.1	C
	Through	47	50	107.2%	13.3	3.4	B
	Right Turn						
	Subtotal	80	78	98.0%	18.0	3.9	B
Total		1,912	1,868	97.7%	10.6	0.9	B

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	200	188	94.0%	18.8	1.3	B
	Through	1,079	1,065	98.7%	17.7	0.7	B
	Right Turn	45	51	113.8%	13.4	3.2	B
	Subtotal	1,324	1,304	98.5%	17.7	0.7	B
EB	Left Turn						
	Through	515	502	97.6%	31.6	6.8	C
	Right Turn	137	141	102.8%	27.8	7.8	C
	Subtotal	652	643	98.7%	30.7	6.9	C
WB	Left Turn	6	6	100.0%	24.8	17.4	C
	Through	250	253	101.1%	12.3	3.9	B
	Right Turn						
	Subtotal	256	259	101.1%	12.6	4.2	B
Total		2,232	2,206	98.8%	20.9	2.1	C

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	210	166	79.2%	17.1	3.5	B
	Right Turn	787	640	81.3%	54.2	7.7	D
	Subtotal	997	806	80.8%	46.7	6.6	D
SB	Left Turn	164	162	98.5%	33.2	5.3	C
	Through	705	675	95.7%	11.4	1.1	B
	Right Turn						
	Subtotal	869	836	96.2%	15.6	1.8	B
EB	Left Turn	168	130	77.4%	25.7	4.2	C
	Through	968	792	81.8%	23.3	3.1	C
	Right Turn	152	134	88.4%	21.2	3.9	C
	Subtotal	1,288	1,056	82.0%	23.3	2.8	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,154	2,698	85.6%	27.9	2.0	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	94	90	95.7%	38.7	7.1	D
	Through						
	Right Turn	156	153	98.2%	37.5	4.6	D
	Subtotal	250	243	97.3%	38.0	4.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,286	1,045	81.3%	53.7	12.6	D
	Right Turn	548	432	78.8%	29.0	5.1	C
	Subtotal	1,834	1,477	80.5%	46.4	9.6	D
SW	Left Turn	44	38	87.3%	46.6	12.9	D
	Through	1,594	1,570	98.5%	42.3	7.0	D
	Right Turn	5	5	96.0%	16.8	9.0	B
	Subtotal	1,643	1,613	98.2%	42.4	7.2	D
Total		3,727	3,334	89.4%	43.9	6.4	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	181	174	96.4%	26.8	3.6	C
	Through	2,680	2,684	100.2%	22.6	2.4	C
	Right Turn	12	13	106.7%	13.2	9.0	B
	Subtotal	2,873	2,872	100.0%	22.8	2.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	1,202	959	79.8%	48.3	12.5	D
	Through	18	12	66.7%	44.4	20.0	D
	Right Turn						
	Subtotal	1,220	971	79.6%	48.3	12.5	D
WB	Left Turn						
	Through	28	29	104.3%	15.9	4.5	B
	Right Turn	18	19	106.7%	11.3	5.3	B
	Subtotal	46	48	105.2%	13.7	2.4	B
Total		4,139	3,891	94.0%	29.1	3.2	C

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	569	462	81.1%	33.2	4.5	C
	Through	213	173	81.1%	21.1	3.4	C
	Right Turn	21	18	87.6%	14.5	5.5	B
	Subtotal	803	653	81.3%	29.5	3.3	C
SB	Left Turn	217	196	90.5%	93.0	41.0	F
	Through	275	247	89.9%	98.7	42.6	F
	Right Turn	110	98	89.5%	89.4	45.4	F
	Subtotal	602	542	90.0%	95.0	42.4	F
EB	Left Turn	11	10	87.3%	62.4	28.1	E
	Through	663	629	94.8%	72.0	21.7	E
	Right Turn	171	154	89.8%	71.0	20.0	E
	Subtotal	845	792	93.7%	71.7	21.0	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,250	1,987	88.3%	64.0	17.5	E

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 39 **6th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	567	408	71.9%	25.1	8.6	D
	Subtotal	567	408	71.9%	25.1	8.6	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	721	661	91.7%	1.4	0.3	A
	Right Turn	184	174	94.8%	1.7	0.6	A
	Subtotal	905	836	92.3%	1.5	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,472	1,243	84.5%	9.2	2.9	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **PM Peak Hour**

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	15	8	50.7%	5.4	3.4	A
	Subtotal	15	8	50.7%	5.4	3.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,914	1,586	82.9%	1.6	0.2	A
	Right Turn	5	4	80.0%	1.3	1.8	A
	Subtotal	1,919	1,590	82.9%	1.6	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,934	1,598	82.6%	1.7	0.2	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	63	58	91.4%	16.3	4.4	B
	Right Turn	152	136	89.2%	11.8	1.6	B
	Subtotal	215	193	89.9%	13.0	1.4	B
SB	Left Turn	5	2	48.0%	21.7	24.2	C
	Through	532	508	95.5%	20.5	6.9	C
	Right Turn						
	Subtotal	537	510	95.0%	20.5	6.8	C
EB	Left Turn	258	213	82.6%	17.9	7.9	B
	Through	1,677	1,334	79.5%	18.5	8.4	B
	Right Turn	24	24	98.3%	13.8	8.9	B
	Subtotal	1,959	1,571	80.2%	18.4	8.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,711	2,274	83.9%	18.4	7.1	B

Intersection 42 **Bercut Dr/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	293	226	77.3%	19.0	1.4	C
	Right Turn	187	140	74.9%	9.8	1.9	A
	Subtotal	480	366	76.3%	15.5	1.0	C
SB	Left Turn	130	126	96.6%	8.6	0.7	A
	Through	240	239	99.7%	9.7	1.1	A
	Right Turn						
	Subtotal	370	365	98.6%	9.3	0.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	0.0%	1.7	0.4	A
	Through						
	Right Turn	310	266	85.7%	9.4	1.9	A
	Subtotal	311	266	85.4%	9.4	1.9	A
Total		1,161	997	85.9%	11.6	0.7	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	6	80.0%	36.0	39.5	D
	Through	591	476	80.5%	21.7	7.1	C
	Right Turn	30	22	74.7%	14.9	8.2	B
	Subtotal	628	504	80.2%	21.6	7.2	C
SB	Left Turn	29	21	71.7%	27.4	12.2	C
	Through	422	334	79.1%	20.0	8.5	B
	Right Turn	65	50	76.9%	24.3	18.8	C
	Subtotal	516	404	78.4%	20.7	8.6	C
EB	Left Turn	99	73	73.9%	35.7	19.6	D
	Through	181	140	77.6%	23.8	10.1	C
	Right Turn	5	4	72.0%	24.5	42.0	C
	Subtotal	285	217	76.2%	27.5	12.2	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,429	1,125	78.7%	22.6	6.1	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	39	31	79.0%	6.0	1.1	A
	Right Turn	23	24	106.1%	4.0	1.5	A
	Subtotal	62	55	89.0%	5.2	1.0	A
SB	Left Turn	5	3	56.0%	2.3	2.2	A
	Through	21	15	70.5%	7.4	2.4	A
	Right Turn						
	Subtotal	26	18	67.7%	6.9	2.6	A
EB	Left Turn	23	21	90.4%	3.8	1.2	A
	Through	187	136	72.7%	2.4	1.0	A
	Right Turn	30	27	89.3%	1.3	0.6	A
	Subtotal	240	184	76.5%	2.4	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		328	256	78.2%	3.3	0.7	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **PM Peak Hour**

Intersection 45 **6th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	503	350	69.5%	45.1	27.5	E
	Right Turn	97	70	71.8%	44.3	30.0	E
	Subtotal	600	419	69.9%	44.9	27.8	E
SB	Left Turn	14	12	85.7%	36.9	45.2	E
	Through	340	314	92.5%	24.0	17.2	C
	Right Turn						
	Subtotal	354	326	92.2%	24.2	16.8	C
EB	Left Turn	107	83	77.8%	14.1	23.1	B
	Through	103	76	74.2%	15.5	22.4	C
	Right Turn	5	2	32.0%	5.9	11.0	A
	Subtotal	215	161	75.0%	14.8	22.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,169	907	77.6%	31.4	16.5	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	816	686	84.0%	37.1	7.4	D
	Right Turn	117	91	77.9%	47.2	10.5	D
	Subtotal	933	777	83.3%	38.3	7.7	D
SB	Left Turn	96	81	84.2%	48.6	10.9	D
	Through	561	550	98.0%	7.5	7.1	A
	Right Turn						
	Subtotal	657	630	96.0%	12.8	7.2	B
EB	Left Turn	156	100	63.8%	126.9	58.7	F
	Through	42	29	69.5%	102.1	66.2	F
	Right Turn	16	8	47.5%	86.2	65.5	F
	Subtotal	214	136	63.7%	118.2	54.6	F
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,804	1,544	85.6%	34.9	7.5	C

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	80	113.7%	55.9	11.8	E
	Through	104	98	94.2%	47.5	13.3	D
	Right Turn	5	8	168.0%	24.8	22.0	C
	Subtotal	179	186	103.9%	50.6	11.6	D
SB	Left Turn	278	253	91.1%	83.7	29.7	F
	Through	120	112	93.0%	34.6	8.7	C
	Right Turn	65	71	109.5%	36.8	9.7	D
	Subtotal	463	436	94.2%	63.6	18.9	E
EB	Left Turn						
	Through	1,279	907	70.9%	231.2	15.0	F
	Right Turn	44	27	61.8%	237.1	26.1	F
	Subtotal	1,323	934	70.6%	231.4	15.1	F
WB	Left Turn						
	Through	1,350	908	67.3%	22.3	2.4	C
	Right Turn	337	240	71.1%	4.5	0.7	A
	Subtotal	1,687	1,148	68.0%	18.6	2.0	B
Total		3,652	2,704	74.0%	101.3	6.8	F

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	48	48	100.8%	60.9	16.4	E
	Through	47	50	107.2%	30.7	6.0	C
	Right Turn	5	4	88.0%	22.7	24.3	C
	Subtotal	100	103	103.2%	44.6	5.8	D
SB	Left Turn	2	2	100.0%	41.0	64.5	D
	Through	31	25	80.0%	100.0	31.7	F
	Right Turn	208	188	90.4%	93.6	34.3	F
	Subtotal	241	215	89.1%	94.9	32.7	F
EB	Left Turn	484	310	64.1%	61.3	9.9	E
	Through	751	566	75.4%	22.8	3.7	C
	Right Turn	327	263	80.5%	19.7	4.4	B
	Subtotal	1,562	1,140	73.0%	32.6	4.5	C
WB	Left Turn	17	9	51.8%	104.0	18.6	F
	Through	1,343	876	65.3%	57.2	3.8	E
	Right Turn	37	27	73.5%	36.6	8.7	D
	Subtotal	1,397	912	65.3%	57.0	3.7	E
Total		3,300	2,370	71.8%	48.0	5.2	D

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	111	94	84.7%	68.0	15.6	E
	Through	68	55	81.2%	38.5	13.0	D
	Right Turn	59	50	85.4%	21.9	9.3	C
	Subtotal	238	200	83.9%	48.3	12.8	D
SB	Left Turn	52	42	80.0%	57.7	10.3	E
	Through	18	16	86.7%	82.0	93.2	F
	Right Turn	40	41	102.0%	27.6	22.5	C
	Subtotal	110	98	89.1%	45.6	15.3	D
EB	Left Turn	33	25	75.2%	108.5	53.8	F
	Through	611	461	75.5%	12.7	6.3	B
	Right Turn	76	52	68.4%	11.3	8.1	B
	Subtotal	720	538	74.7%	17.3	9.8	B
WB	Left Turn	67	34	51.3%	149.3	39.9	F
	Through	1,085	768	70.8%	79.2	12.2	E
	Right Turn	140	107	76.6%	55.8	14.3	E
	Subtotal	1,292	910	70.4%	79.3	12.9	E
Total		2,360	1,745	73.9%	54.6	7.2	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement **PM Peak Hour**

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	27	74.4%	70.9	33.5	E
	Through	19	13	67.4%	30.4	18.7	C
	Right Turn	36	34	95.6%	22.1	21.7	C
	Subtotal	91	74	81.3%	39.7	12.5	D
SB	Left Turn	17	10	61.2%	76.5	23.9	E
	Through	16	15	95.0%	45.8	41.0	D
	Right Turn	5	3	64.0%	34.0	55.8	C
	Subtotal	38	29	75.8%	58.6	34.4	E
EB	Left Turn	10	8	84.0%	68.6	18.8	E
	Through	699	528	75.5%	14.4	5.5	B
	Right Turn	49	42	84.9%	15.4	13.0	B
	Subtotal	758	578	76.2%	15.1	5.8	B
WB	Left Turn	30	18	60.0%	72.6	15.1	E
	Through	1,179	884	74.9%	28.5	15.3	C
	Right Turn	13	10	73.8%	13.4	12.4	B
	Subtotal	1,222	911	74.6%	29.3	14.9	C
Total		2,109	1,592	75.5%	25.0	8.7	C

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	173	137	79.3%	109.0	27.0	F
	Through	297	231	77.8%	44.8	17.7	D
	Right Turn	78	62	79.0%	47.4	33.9	D
	Subtotal	548	430	78.5%	65.7	21.8	E
SB	Left Turn	32	22	67.5%	132.2	38.0	F
	Through	245	171	69.7%	114.7	39.7	F
	Right Turn	178	117	65.6%	104.3	40.1	F
	Subtotal	455	309	68.0%	112.3	39.3	F
EB	Left Turn	85	58	67.8%	73.2	8.6	E
	Through	575	436	75.8%	20.3	8.2	C
	Right Turn	92	68	73.9%	14.8	5.7	B
	Subtotal	752	562	74.7%	25.0	7.4	C
WB	Left Turn	24	16	68.3%	85.4	26.5	F
	Through	871	698	80.1%	29.1	11.4	C
	Right Turn	223	181	81.3%	25.0	10.0	C
	Subtotal	1,118	896	80.1%	29.2	11.2	C
Total		2,873	2,196	76.4%	46.2	7.4	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	34	20	60.0%	21.9	21.6	C
	Subtotal	34	20	60.0%	21.9	21.6	C
EB	Left Turn						
	Through	685	520	75.9%	11.0	11.6	B
	Right Turn						
	Subtotal	685	520	75.9%	11.0	11.6	B
WB	Left Turn						
	Through	1,084	912	84.1%	4.7	4.3	A
	Right Turn	40	34	86.0%	3.4	4.1	A
	Subtotal	1,124	946	84.2%	4.6	4.2	A
Total		1,843	1,486	80.7%	7.0	4.0	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	19	14	75.8%	110.9	23.9	F
	Through	338	228	67.6%	109.8	19.6	F
	Right Turn	155	102	65.5%	92.8	12.4	F
	Subtotal	512	344	67.3%	104.8	15.6	F
SB	Left Turn	98	95	96.7%	156.1	55.0	F
	Through	182	162	88.8%	64.9	31.1	E
	Right Turn	95	84	88.4%	51.1	24.2	D
	Subtotal	375	340	90.8%	87.1	38.7	F
EB	Left Turn	252	170	67.3%	89.2	34.3	F
	Through	421	320	76.1%	51.2	17.8	D
	Right Turn	12	13	110.0%	44.3	20.0	D
	Subtotal	685	503	73.5%	64.5	22.5	E
WB	Left Turn	422	256	60.8%	45.3	7.4	D
	Through	1,010	850	84.1%	22.7	7.3	C
	Right Turn	26	22	83.1%	27.8	28.8	C
	Subtotal	1,458	1,128	77.3%	28.0	6.6	C
Total		3,030	2,316	76.4%	55.5	10.1	E

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	438	393	89.7%	148.5	65.4	F
	Through	590	594	100.6%	30.3	9.5	C
	Right Turn						
	Subtotal	1,028	986	96.0%	77.0	29.3	E
SB	Left Turn						
	Through	379	384	101.2%	61.8	21.0	E
	Right Turn	198	197	99.4%	73.8	33.9	E
	Subtotal	577	580	100.6%	65.6	24.5	E
EB	Left Turn	338	221	65.4%	43.4	4.2	D
	Through						
	Right Turn	336	254	75.5%	20.7	2.5	C
	Subtotal	674	475	70.4%	31.3	2.9	C
WB	Left Turn	599	408	68.0%	216.4	22.3	F
	Through	822	517	62.9%	237.4	29.8	F
	Right Turn	5	4	72.0%	214.7	78.1	F
	Subtotal	1,426	928	65.1%	228.1	25.8	F
Total		3,705	2,970	80.2%	114.7	15.3	F

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	36	2	5.6%	533.6	217.1	F
	Subtotal	36	2	5.6%	116.3	192.1	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,357	1,008	74.3%	85.1	16.7	F
	Right Turn	10	10	100.0%	64.7	40.1	F
	Subtotal	1,367	1,018	74.5%	84.9	16.9	F
Total		1,403	1,020	72.7%	83.2	15.4	F

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	471	376	79.7%	46.0	22.7	D
	Subtotal	471	376	79.7%	46.0	22.7	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	887	774	87.2%	44.0	33.3	D
	Right Turn	22	19	85.5%	49.7	33.4	D
	Subtotal	909	792	87.2%	44.1	33.2	D
Total		1,380	1,168	84.6%	44.8	27.9	D

Intersection 57 **Bercut Dr/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	111	128	115.0%	27.6	3.6	C
	Through	86	88	102.8%	17.1	3.0	B
	Right Turn	204	212	103.7%	10.1	3.3	B
	Subtotal	401	428	106.6%	16.8	2.2	B
SB	Left Turn	164	128	77.8%	28.5	6.8	C
	Through	124	94	76.1%	13.8	2.9	B
	Right Turn	5	4	80.0%	3.1	2.3	A
	Subtotal	293	226	77.1%	21.7	4.7	C
EB	Left Turn	15	10	69.3%	11.0	10.2	B
	Through	109	92	84.8%	13.7	3.9	B
	Right Turn	40	38	95.0%	7.4	3.7	A
	Subtotal	164	141	85.9%	12.0	3.1	B
WB	Left Turn	195	173	88.6%	20.6	2.2	C
	Through	63	58	92.1%	18.0	4.1	B
	Right Turn	5	6	120.0%	13.8	12.7	B
	Subtotal	263	237	90.0%	19.8	2.5	B
Total		1,121	1,031	92.0%	18.0	1.3	B

Intersection 58 **Huntington St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	120	72	60.3%	8.8	4.4	A
	Through						
	Right Turn	19	13	67.4%	3.8	1.3	A
	Subtotal	139	85	61.3%	8.2	4.4	A
EB	Left Turn	25	18	70.4%	13.7	15.9	B
	Through	417	369	88.5%	14.9	13.5	B
	Right Turn						
	Subtotal	442	387	87.5%	14.8	13.5	B
WB	Left Turn						
	Through	291	264	90.9%	9.9	0.7	A
	Right Turn	160	141	88.3%	7.1	0.7	A
	Subtotal	451	406	89.9%	8.9	0.7	A
Total		1,032	878	85.0%	11.5	6.7	B

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	75	52	69.9%	20.6	14.8	C
	Through						
	Right Turn	20	17	84.0%	4.1	1.0	A
	Subtotal	95	69	72.8%	16.1	9.1	C
EB	Left Turn	11	8	72.7%	40.3	17.8	E
	Through	742	484	65.3%	48.2	12.2	E
	Right Turn						
	Subtotal	753	492	65.4%	48.1	12.2	E
WB	Left Turn						
	Through	403	350	86.7%	11.3	0.9	B
	Right Turn	80	64	79.5%	8.9	1.5	A
	Subtotal	483	413	85.5%	11.0	0.9	B
Total		1,331	975	73.2%	29.9	5.8	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	205	661.9%	67.9	29.0	E
	Through	229	235	102.5%	53.3	34.4	D
	Right Turn	212	64	30.2%	47.2	33.7	D
	Subtotal	472	504	106.8%	58.5	30.4	E
SB	Left Turn	41	25	60.5%	57.6	17.2	E
	Through	339	266	78.3%	29.6	6.2	C
	Right Turn	31	20	64.5%	15.5	9.1	B
	Subtotal	411	310	75.5%	31.0	6.4	C
EB	Left Turn	85	58	68.2%	71.6	19.2	E
	Through	398	253	63.6%	48.9	11.3	D
	Right Turn	334	226	67.5%	37.8	6.5	D
	Subtotal	817	537	65.7%	46.4	7.8	D
WB	Left Turn	31	20	64.5%	65.3	25.3	E
	Through	229	178	77.7%	45.3	17.5	D
	Right Turn	212	174	82.1%	41.0	16.7	D
	Subtotal	472	372	78.8%	44.3	16.7	D
Total		2,172	1,723	79.3%	46.2	13.1	D

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	209	80.9%	132.4	49.3	F
	Through	348	261	74.9%	145.2	59.0	F
	Right Turn						
	Subtotal	606	470	77.5%	139.5	54.5	F
SB	Left Turn						
	Through	510	367	72.0%	25.4	8.4	C
	Right Turn	106	77	72.5%	20.6	6.3	C
	Subtotal	616	444	72.1%	24.5	7.9	C
EB	Left Turn	164	93	56.8%	124.6	71.2	F
	Through						
	Right Turn	243	164	67.7%	33.2	24.0	C
	Subtotal	407	258	63.3%	65.6	38.1	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,629	1,171	71.9%	79.5	25.6	E

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	493	479	97.2%	23.1	19.2	C
	Right Turn	91	81	89.2%	20.7	16.1	C
	Subtotal	584	560	96.0%	22.9	18.6	C
SB	Left Turn	30	26	85.3%	10.9	6.1	B
	Through	674	481	71.4%	3.1	1.6	A
	Right Turn						
	Subtotal	704	507	72.0%	3.5	1.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	89	66	74.2%	36.7	12.8	E
	Through						
	Right Turn	60	39	64.7%	32.3	23.7	D
	Subtotal	149	105	70.3%	34.7	15.6	D
Total		1,437	1,172	81.6%	15.2	9.1	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	62	82.1%	71.4	40.5	F
	Through	606	493	81.4%	78.1	42.8	F
	Right Turn						
	Subtotal	682	556	81.5%	77.5	42.5	F
SB	Left Turn						
	Through	680	488	71.8%	3.5	0.8	A
	Right Turn	73	46	62.5%	3.2	1.4	A
	Subtotal	753	534	70.9%	3.5	0.8	A
EB	Left Turn						
	Through						
	Right Turn	108	105	97.4%	10.1	2.7	B
	Subtotal	108	105	97.4%	10.1	2.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,543	1,195	77.4%	38.4	19.6	E

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	192	191	99.6%	61.6	20.1	E
	Through	344	339	98.6%	37.2	7.4	D
	Right Turn	433	356	82.2%	73.8	34.7	E
	Subtotal	969	886	91.5%	57.2	19.1	E
SB	Left Turn	108	91	84.4%	81.4	64.2	F
	Through	245	253	103.3%	31.3	4.0	C
	Right Turn	21	25	118.1%	6.9	3.9	A
	Subtotal	374	369	98.7%	40.1	11.9	D
EB	Left Turn	31	28	91.6%	80.1	37.2	F
	Through	248	216	87.1%	52.9	21.1	D
	Right Turn	161	164	101.9%	6.3	2.2	A
	Subtotal	440	408	92.8%	35.1	12.8	D
WB	Left Turn	394	266	67.5%	72.7	12.5	E
	Through	371	240	64.8%	34.4	8.1	C
	Right Turn	171	114	66.7%	17.9	10.2	B
	Subtotal	936	620	66.3%	47.9	11.4	D
Total		2,719	2,284	84.0%	47.9	11.8	D

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	22	70.0%	123.0	55.5	F
	Through	18	17	93.3%	88.2	47.1	F
	Right Turn	569	418	73.5%	122.8	32.1	F
	Subtotal	619	458	73.9%	122.0	32.9	F
SB	Left Turn	5	4	80.0%	17.8	22.4	B
	Through	15	12	82.7%	25.5	17.4	C
	Right Turn	11	9	83.6%	10.4	8.0	B
	Subtotal	31	26	82.6%	20.2	8.5	C
EB	Left Turn	16	12	77.5%	68.2	35.3	E
	Through	749	536	71.6%	126.0	41.8	F
	Right Turn	24	14	60.0%	98.8	56.4	F
	Subtotal	789	563	71.4%	124.3	41.2	F
WB	Left Turn	559	398	71.2%	198.4	13.4	F
	Through	893	602	67.4%	166.2	9.9	F
	Right Turn	33	27	82.4%	165.3	13.9	F
	Subtotal	1,485	1,027	69.1%	178.7	9.1	F
Total		2,924	2,073	70.9%	149.0	19.4	F

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,460	946	307	1,403	387	1,283	290	71%	5%
	Through/Right	250	233	29	359	32	275	0	1%	0%
SB	Left Turn	1,409	163	27	229	42	227	42	0%	0%
	Left/Through	1,409	212	36	292	55	280	65	1%	0%
	Right Turn	300	44	13	86	57	98	82	0%	0%
WB	Left Turn	1,261	87	27	159	40	154	39	0%	0%
	Through	261	39	11	91	32	95	36	0%	0%

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	225	246	5	256	9	250	0	21%	5%
	Through	261	296	23	367	52	327	31	0%	14%
NB	Left Turn	300	47	10	86	28	89	39	0%	0%
	Through/Right	1,153	121	31	181	52	180	42	0%	0%
	Right Turn	1,153	81	28	144	60	141	53	0%	0%
WB	Through	212	197	18	245	12	230	16	0%	8%
	Through/Right	212	222	15	252	15	244	11	0%	18%
	Right Turn	212	206	9	259	16	240	7	0%	6%

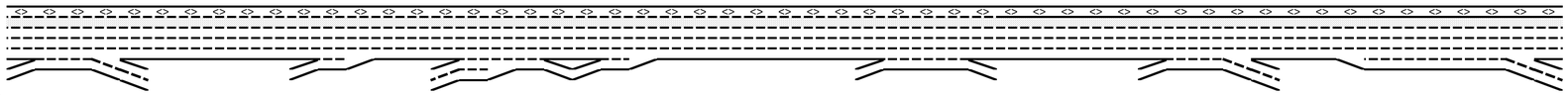
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	1,584	214	42	333	81	354	112	0%	0%
	Through	583	216	41	321	83	336	112	0%	0%
	Through/Right	583	278	38	374	56	396	81	0%	0%
	Right Turn	583	279	35	379	43	402	75	0%	0%
NB	Right Turn	1,062	30	14	66	38	75	40	0%	0%
NE	Shared	996	306	68	466	174	518	229	0%	0%
	Right Turn	996	0	0	0	0	0	0	0%	0%
	Right Turn	996	0	0	0	0	0	0	0%	0%
	Right Turns	330	135	18	211	57	216	78	0%	0%
SB	Left Turn	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

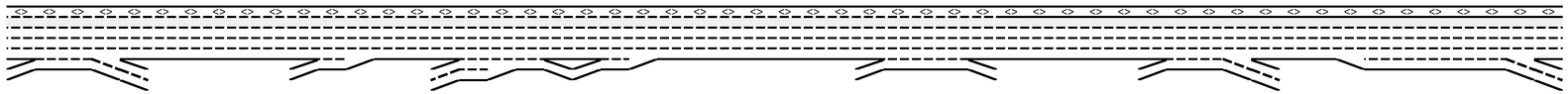
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	1,700	600	740	1,500	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	6,955	6,830	6,830	7,964	9,268	9,829	9,829	10,471	10,471	10,615	10,615
On Ramp Volume	687		1,134	1,889	561		1,558		1,018		
Off Ramp Volume	812			585			916		874		1,680
Express Lane Volume	1,321	1,161	1,161	1,354	1,390	1,376	1,376	1,361	1,361	1,380	1,380
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	5,634	5,669	5,669	6,610	7,878	8,453	8,453	9,110	9,110	9,235	9,235
PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Lanes	5	4	4	4	4	4	5	4	5	5	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	6,281	6,320	6,320	7,370	8,783	9,424	9,424	10,156	10,156	10,296	10,296
Flow (pcphpl)	1,256	1,580	1,580	1,842	2,196	2,356	1,885	2,539	2,031	2,059	2,059
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	11,750	9,400	9,400	9,400	9,400	9,400	11,750	9,400	11,750	11,750	11,750
v/c ratio	0.53	0.67	0.67	0.78	0.93	1.00	0.80	1.08	0.86	0.88	0.88
Speed (mph)	65.0	64.5	64.5	62.2	56.0	-	61.7	-	59.3	58.8	58.8
Density (pcphpl)	19.3	24.5	24.5	29.6	39.2	-	30.6	-	34.2	35.0	35.0
LOS	C	C	C	D	E	F	D	F	D	D	D
Calculate Operations for Segment GP Lanes											
Flow (pcph)	7,056		7,519	9,500	9,382		11,089		11,305		
Lanes	5	4	4	5	4	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750	9,400		11,750		11,750		
v/c ratio	0.60		0.80	0.81	1.00		0.94		0.96		
Flow Rate (pcphpl)	1,411		1,880	1,900	2,346		2,218		2,261		
Speed (mph)	65.0		61.7	61.5	52.3		55.5		54.5		
Density (pcphpl)	21.7		30.4	30.9	44.8		39.9		41.5		
LOS	C		D	D	E		E		E		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

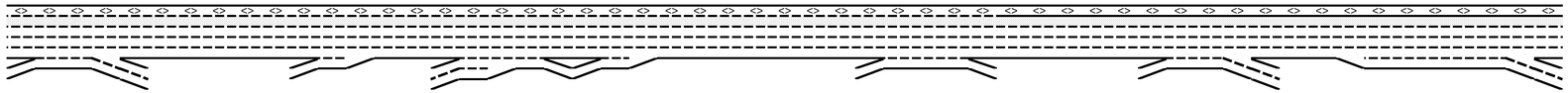
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	6,197			8,840			10,100		10,351		8,459
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.66			0.94			1.07		1.10		0.90
Flow Rate (pcphpl)	1,549			2,210			2,525		2,588		2,115
Speed (mph)	64.7			55.7			-		-		57.8
Density (pcphpl)	24.0			39.7			-		-		36.6
LOS	C			E			F		F		E

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

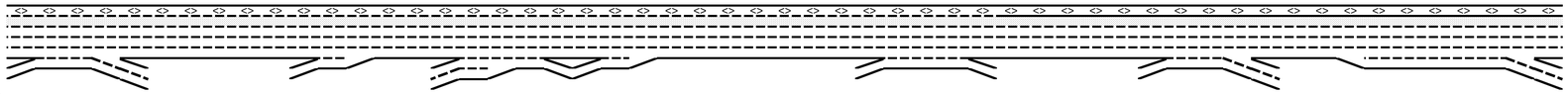
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,321	1,161	1,161	1,354	1,390	1,376	1,376	1,361	1,361	1,380	1,380
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,405	1,234	1,234	1,439	1,478	1,463	1,463	1,447	1,447	1,467	1,467
Flow Rate (pcphpl)	1,405	1,234	1,234	1,439	1,478	1,463	1,463	1,447	1,447	1,467	1,467
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.80	0.71	0.71	0.82	0.84	0.84	0.84	0.83	0.83	0.84	0.84
Calculate On Ramp Flow Rate											
Volume (vph)	687		1,134	1,889	561		1,558		1,018		
PHF	0.9		0.96	0.9	0.95		0.95		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	775		1,199	2,130	599		1,665		1,148		
Flow Rate (pcphpl)	775		1,199	1,065	599		1,665		1,148		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.37		0.57	0.51	0.29		0.79		0.55		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

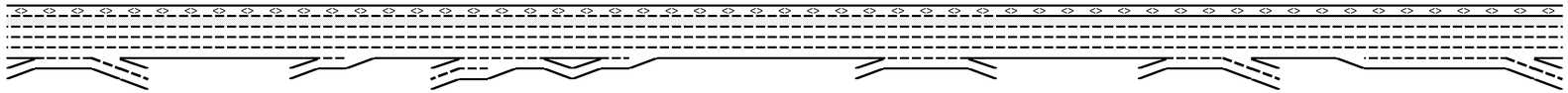
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate											
Volume (vph)	812			585			916		874		1,680
PHF	0.96			0.9			0.94		0.93		0.96
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	859			660			989		954		1,838
Flow Rate (pcphpl)	429			660			989		477		919
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.20			0.31			0.47		0.23		0.40
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			6,320		8,783						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.068		0.143						
v_{12} (pcph)			429		1,255						
v_3 (pcph)											
v_{34} (pcph)			5,891		7,528						
v_{12a} (pcph)			2,528		3,513						
v_{R12a} (pcph)			3,727		4,113						
Speed Index			0.44		0.51						
Area Speed			54.8		53.4						
Outer Lanes Volume			1,896		2,635						
Outer Lanes Speed			60.0		56.5						
Segment Speed			57.3		55.1						
v/c ratio			0.81		0.89						
Density			31.3		33.6						
LOS			D		D						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

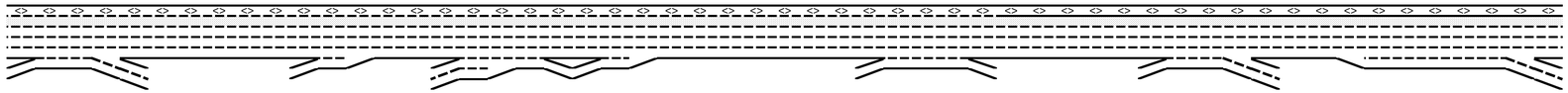
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											36.0
LOS											E
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)							1,020				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)							1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)							538				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)							575				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

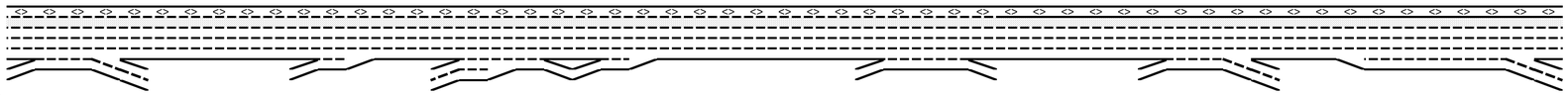
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)							-104				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)							-113				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)							8,557				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)							9,278				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

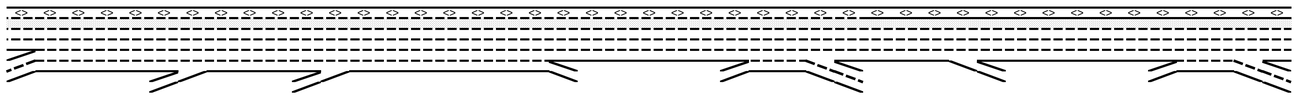
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.67	0.81		0.89	1.00		1.08		0.88	
Segment Density		24.5	31.3		33.6	-	-	-	-	35.0	36.0
Segment LOS		C	D		D	F	F	F	F	D	E
Over Capacity						Entering GP Lanes	Exiting GP Lanes	Entering GP Lanes	Exiting GP Lanes		
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

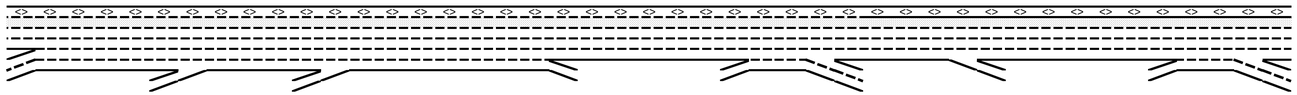
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	5,583	7,755	8,150	8,751	8,078	8,078	7,800	7,463	7,463
On Ramp Volume	2,172	395	601			879			936
Off Ramp Volume				673		1,157	337		1,311
Express Lane Volume	837	1,163	1,223	1,313	1,212	1,212	1,170	1,119	1,119
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	4,746	6,592	6,928	7,438	6,866	6,866	6,630	6,344	6,344
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	5	5	5	5	4	5	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,181	7,196	7,563	8,120	7,496	7,496	7,238	6,925	6,925
Flow (pcphpl)	1,036	1,439	1,513	1,624	1,874	1,499	1,809	1,731	1,385
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	11,750	11,750	11,750	11,750	9,400	11,750	9,400	9,400	11,750
v/c ratio	0.44	0.61	0.64	0.69	0.80	0.64	0.77	0.74	0.59
Speed (mph)	65.0	65.0	64.8	64.3	61.8	64.9	62.6	63.4	65.0
Density (pcphpl)	15.9	22.1	23.3	25.3	30.3	23.1	28.9	27.3	21.3
LOS	B	C	C	C	D	C	D	D	C
Calculate Operations for Segment GP Lanes									
Flow (pcph)	7,633	7,641	8,240			8,487			7,904
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.65	0.65	0.70			0.72			0.67
Flow Rate (pcphpl)	1,527	1,528	1,648			1,697			1,581
Speed (mph)	64.8	64.8	64.1			63.7			64.5
Density (pcphpl)	23.6	23.6	25.7			26.6			24.5
LOS	C	C	C			D			C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

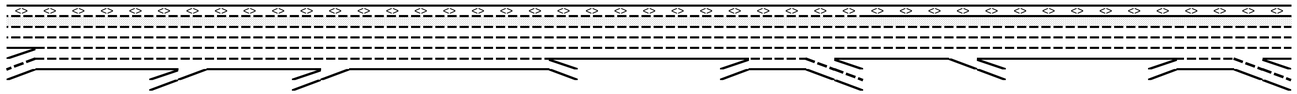
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				7,394		7,182	6,878		6,518
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.79		0.76	0.73		0.69
Flow Rate (pcphpl)				1,848		1,796	1,719		1,630
Speed (mph)				62.1		62.8	63.6		64.3
Density (pcphpl)				29.7		28.6	27.1		25.4
LOS				D		D	D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

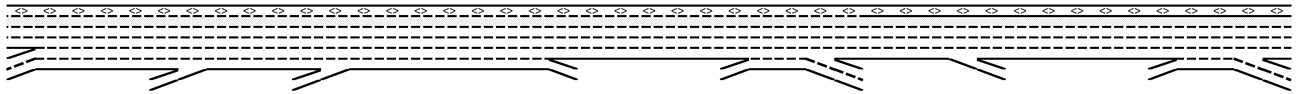
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	837	1,163	1,223	1,313	1,212	1,212	1,170	1,119	1,119
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	890	1,237	1,300	1,396	1,288	1,288	1,244	1,190	1,190
Flow Rate (pcphpl)	890	1,237	1,300	1,396	1,288	1,288	1,244	1,190	1,190
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.51	0.71	0.74	0.80	0.74	0.74	0.71	0.68	0.68
Calculate On Ramp Flow Rate									
Volume (vph)	2,172	395	601			879			936
PHF	0.93	0.9	0.9			0.9			0.97
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	2,452	445	678			991			979
Flow Rate (pcphpl)	1,226	445	678			991			979
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.53	0.21	0.32			0.47			0.47

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

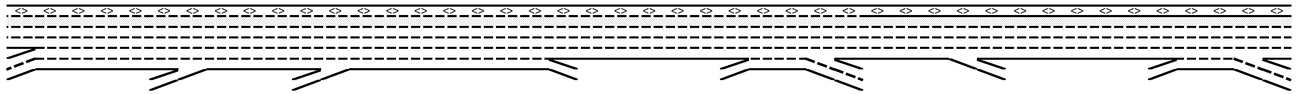
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				673		1,157	337		1,311
PHF				0.94		0.9	0.95		0.96
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				727		1,305	360		1,386
Flow Rate (pcphpl)				727		652	360		693
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.35		0.31	0.17		0.33
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		5,253	5,407						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.162	0.133						
v_{12} (pcph)		852	720						
v_3 (pcph)									
v_{34} (pcph)		4,401	4,688						
v_{12a} (pcph)		2,101	2,163						
v_{R12a} (pcph)		2,547	2,841						
Speed Index		0.36	0.36						
Area Speed		56.7	56.6						
Outer Lanes Volume		1,576	1,622						
Outer Lanes Speed		61.1	61.0						
Segment Speed		59.1	58.9						
v/c ratio		0.55	0.62						
Density		24.5	25.6						
LOS		C	C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

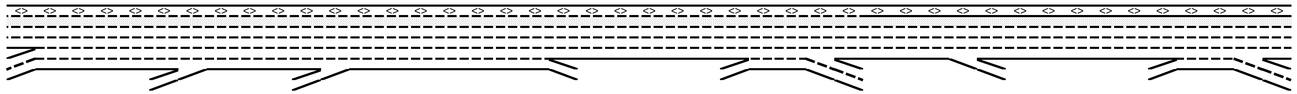
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				6,496			7,238		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.564			0.562		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				3,242			3,359		
v_3 (pcph)									
v_{34} (pcph)				3,254			3,879		
v_{12a} (pcph)				3,242			3,359		
Speed Index				0.36			0.33		
Area Speed				56.6			57.4		
Outer Lanes Volume				1,627			1,940		
Outer Lanes Speed				68.9			67.6		
Segment Speed				62.2			62.5		
v/c ratio				0.74			0.76		
Density				25.4			31.9		
LOS				C			D		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

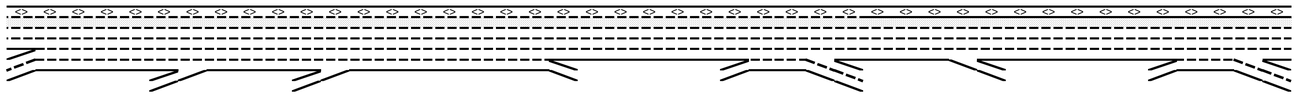
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



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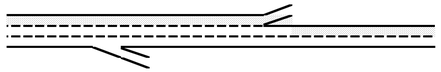
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.65	0.55	0.62	0.74	0.80		0.76	0.74	
Segment Density	23.6	24.5	25.6	25.4	30.3		31.9	27.3	
Segment LOS	C	C	C	C	D		D	D	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Location	1	2	3

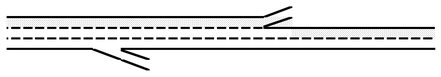


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	6,152	5,525	4,409
On Ramp Volume			
Off Ramp Volume	627	1,116	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	6,152	5,525	4,409
PHF	0.95	0.95	0.95
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	6,573	5,903	4,711
Flow (pcphpl)	2,191	1,968	2,355
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.93	0.82	0.98
Speed (mph)	56.1	63.2	54.5
Density (pcphpl)	39.0	31.2	43.2
LOS	E	D	E
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

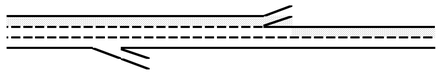


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	5,903	4,711	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.84	0.98	
Flow Rate (pcphpl)	1,968	2,355	
Speed (mph)	60.4	54.5	
Density (pcphpl)	32.6	43.2	
LOS	D	E	

Location	1	2	3



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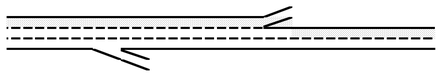
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3



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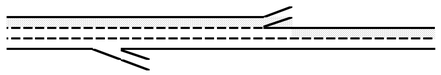
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	627	1,116	
PHF	0.95	0.95	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	670	1,192	
Flow Rate (pcphpl)	670	1,192	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.32	0.60	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		670	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

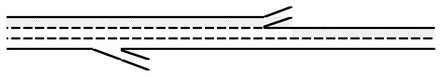


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	6,573		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.565		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.565		
v_{12} (pcph)	4,004		
v_3 (pcph)	2,569		
v_{34} (pcph)			
v_{12a} (pcph)	4,004		
Speed Index	0.36		
Area Speed	56.8		
Outer Lanes Volume	2,569		
Outer Lanes Speed	65.2		
Segment Speed	59.8		
v/c ratio	0.91		
Density	37.3		
LOS	E		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

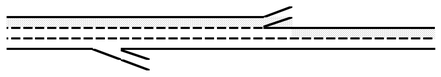


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

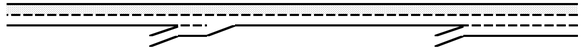
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.91	0.82	0.98
Segment Density	37.3	31.2	43.2
Segment LOS	E	D	E
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative NoProject
Time Period: PM Peak Hour

Location	1	2	3	4

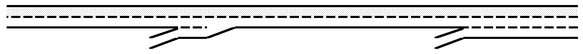


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,593	2,593	3,163	3,163
On Ramp Volume		570		428
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,593	2,593	3,163	3,163
PHF	0.98	0.98	0.98	0.98
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,686	2,686	3,276	3,276
Flow (pcphpl)	1,343	1,343	1,638	1,092
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.60	0.57	0.70	0.46
Speed (mph)	55.0	65.0	64.2	65.0
Density (pcphpl)	24.4	20.7	25.5	16.8
LOS	C	C	C	B
Operations for Segment GP Lanes				
Flow (pcph)		3,276		3,719
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.70		0.53
Flow Rate (pcphpl)		1,638		1,240
Speed (mph)		64.2		65.0
Density (pcphpl)		25.5		19.1
LOS		C		C

Location	1	2	3	4

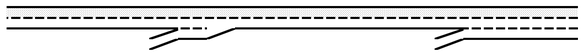


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

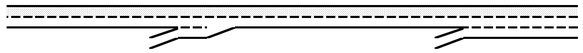


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		570		428
PHF		0.98		0.98
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		590		443
Flow Rate (pcphpl)		590		443
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.28		0.21

Location	1	2	3	4

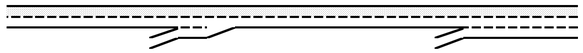


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,686		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,686		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,686		
v_{R12a} (pcph)		3,276		
Speed Index		0.36		
Area Speed		56.8		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		56.8		
v/c ratio		0.71		
Density		26.0		
LOS		C		

Location	1	2	3	4

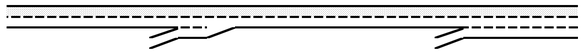


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

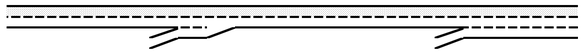


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

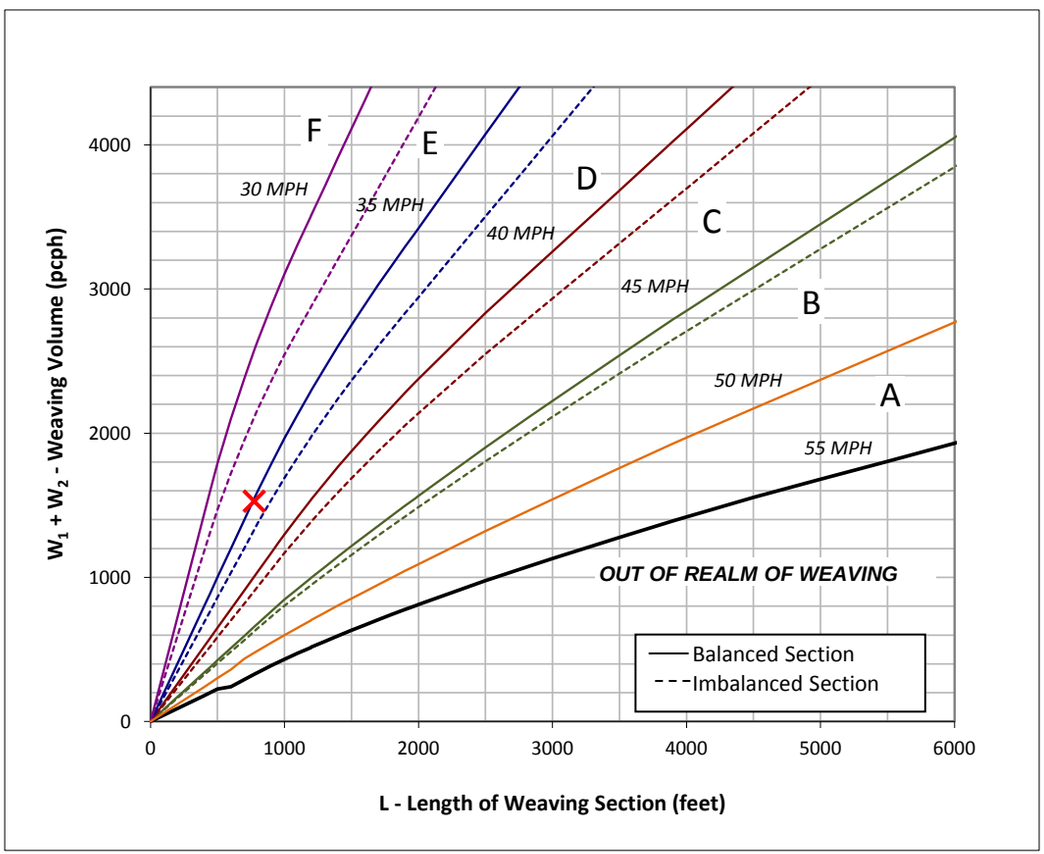
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.60	0.71	0.70	0.53
Segment Density	24.4	26.0	25.5	19.1
Segment LOS	C	C	C	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative No Project PM Pk Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,321	Volume (vph)*	687	Volume (vph)*	812
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,624	Volume (pcph)	701	Volume (pcph)	828



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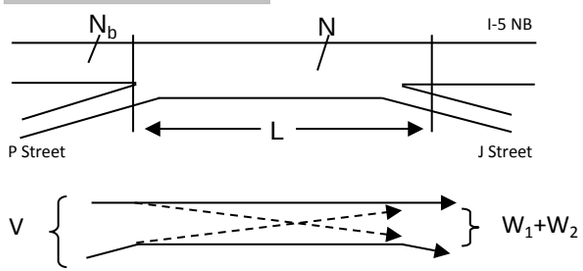


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	35.2
4. Weaving Intensity Factor (k)	2.78
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,575
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

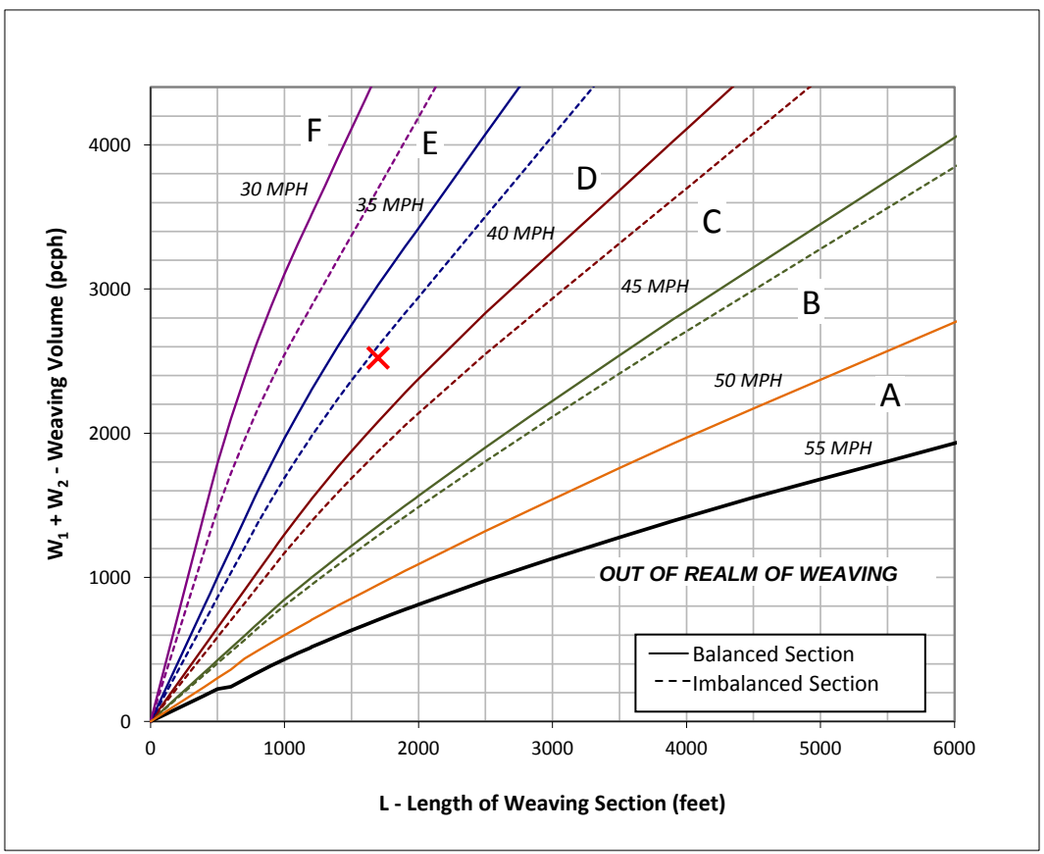
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,700

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,340	Volume (vph)*	1,889	Volume (vph)*	585
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,740	Volume (pcph)	1,927	Volume (pcph)	597



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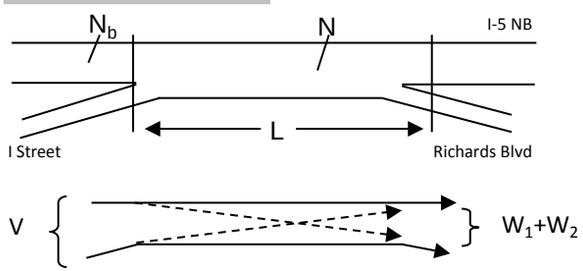


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between? **35 MPH** and **40 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **35.6**
4. Weaving Intensity Factor (k) **2.94**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,979**
6. Level of Service (LOS) **F**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

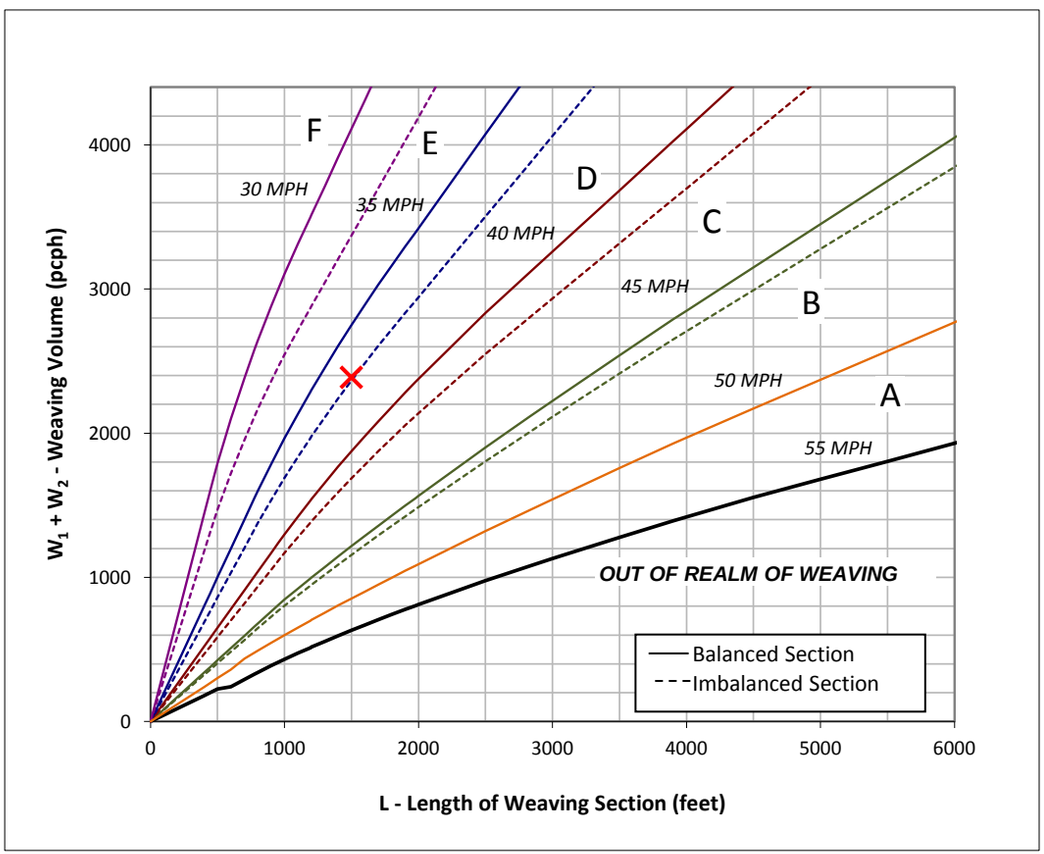
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,500

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,519	Volume (vph)*	1,480	Volume (vph)*	861
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,976	Volume (pcph)	1,510	Volume (pcph)	878



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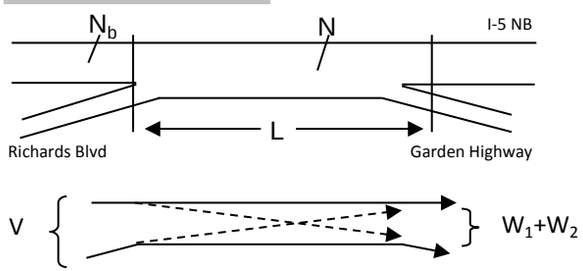


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	34.9
4. Weaving Intensity Factor (k)	2.80
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,311
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

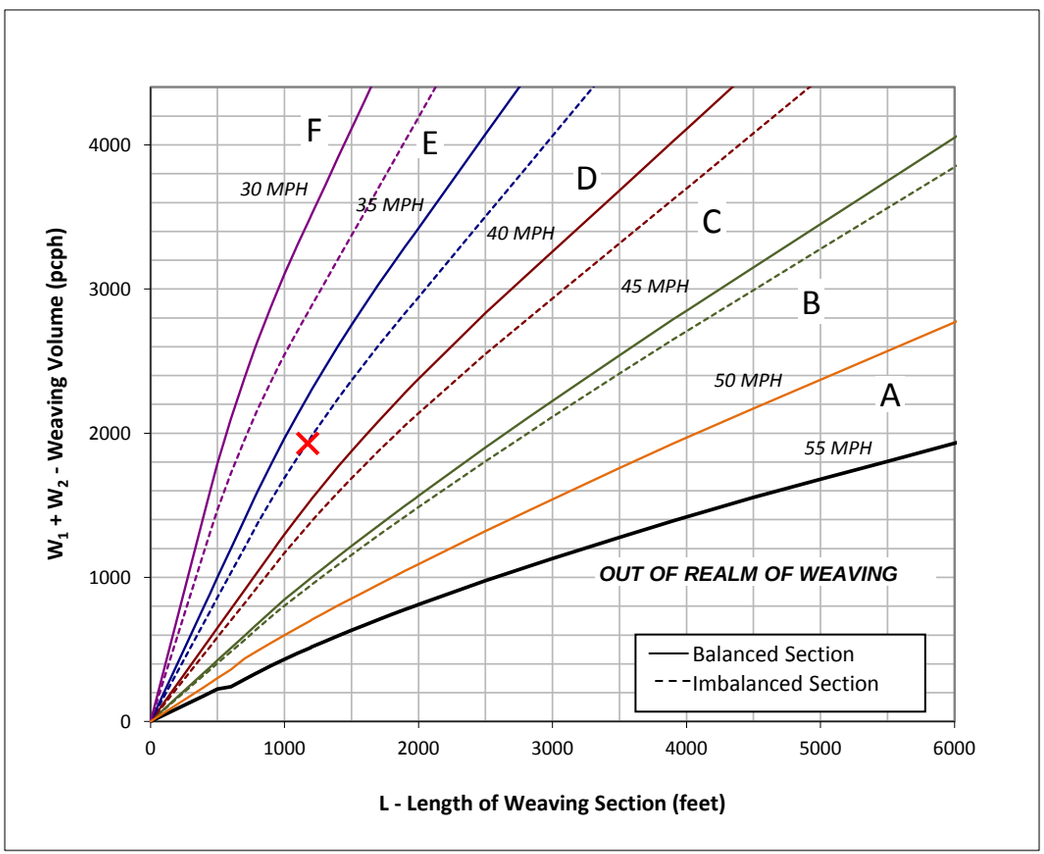
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	9,500	Volume (vph)*	1,018	Volume (vph)*	874
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	9,956	Volume (pcph)	1,038	Volume (pcph)	891



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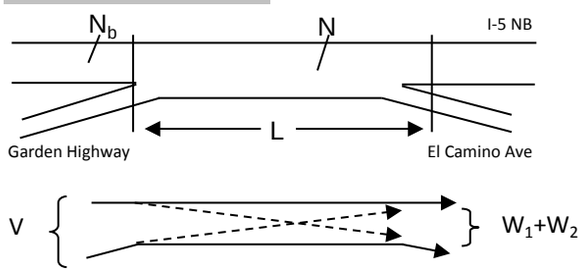


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.2
4. Weaving Intensity Factor (k)	2.69
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,292
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

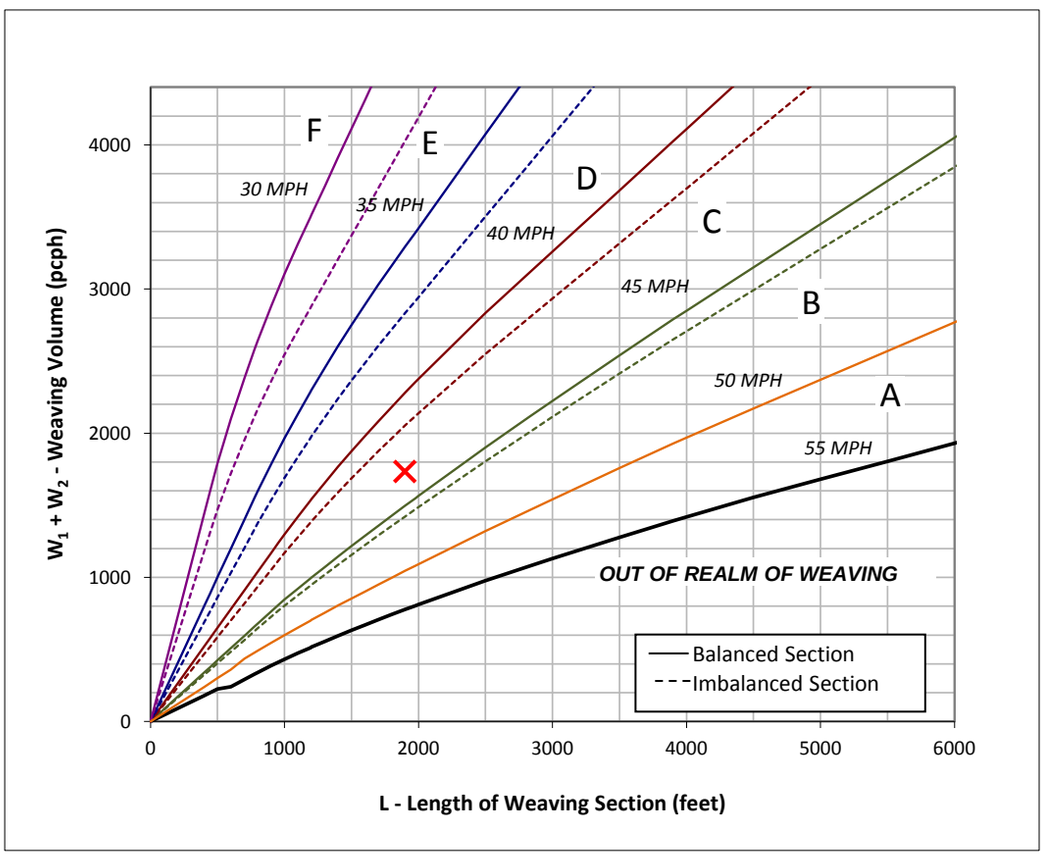
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,745	Volume (vph)*	774	Volume (vph)*	926
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,117	Volume (pcph)	789	Volume (pcph)	944



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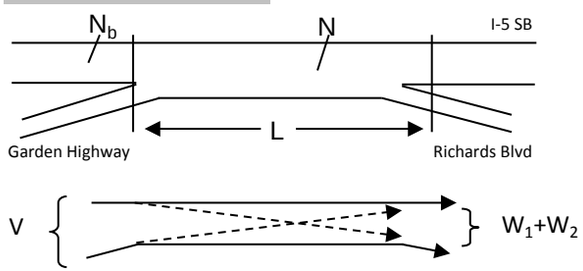


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   40 MPH and **45 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **43.5**
4. Weaving Intensity Factor (k) **2.16**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,807**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

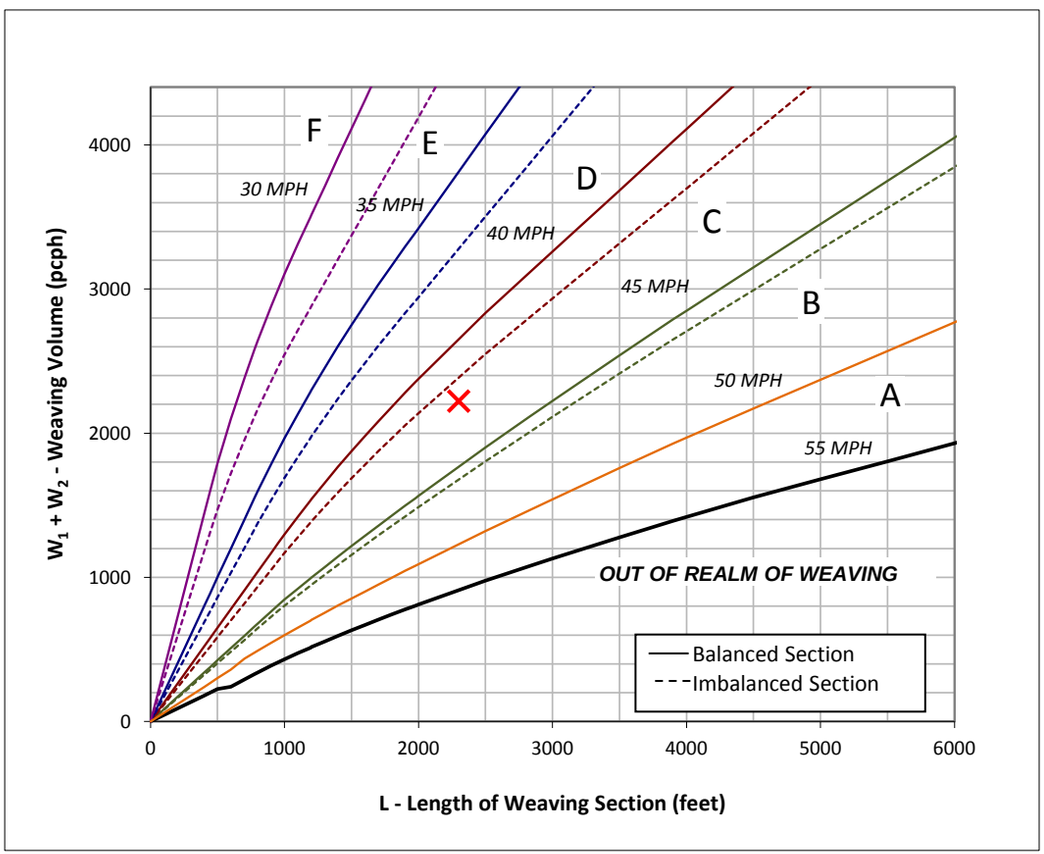
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Baseline No Project PM Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,280	Volume (vph)*	908	Volume (vph)*	1,272
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,629	Volume (pcph)	926	Volume (pcph)	1,297



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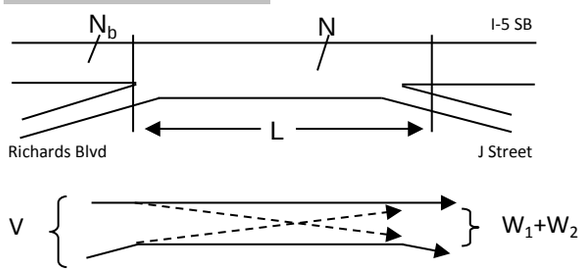


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	42.4
4. Weaving Intensity Factor (k)	2.29
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,765
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	664	691	104.0%	28.1	3.0	C
	Through	3	2	80.0%	8.1	12.5	A
	Right Turn	285	76	26.8%	5.1	0.7	A
	Subtotal	952	770	80.8%	25.8	2.8	C
EB	Left Turn						
	Through	371	374	100.8%	28.1	3.5	C
	Right Turn	61	55	90.5%	3.8	1.6	A
	Subtotal	432	429	99.4%	25.0	2.7	C
WB	Left Turn	322	315	97.8%	9.5	1.5	A
	Through	164	169	103.2%	5.4	1.0	A
	Right Turn						
	Subtotal	486	484	99.6%	8.0	1.1	A
Total		1,870	1,683	90.0%	20.5	1.6	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	79	72	91.1%	35.0	2.9	D
	Through	1	1	120.0%	10.6	20.3	B
	Right Turn	276	278	100.7%	8.4	1.5	A
	Subtotal	356	351	98.7%	14.0	2.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	227	229	100.8%	46.2	5.8	D
	Through	808	838	103.7%	1.9	0.2	A
	Right Turn						
	Subtotal	1,035	1,067	103.1%	11.4	1.5	B
WB	Left Turn						
	Through	407	418	102.6%	15.3	3.0	B
	Right Turn	792	561	70.8%	9.1	1.7	A
	Subtotal	1,199	978	81.6%	11.7	2.0	B
Total		2,590	2,396	92.5%	11.9	1.1	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	297	91	30.7%	31.4	9.4	C
	Through	46	48	105.2%	35.4	8.9	D
	Right Turn	62	57	91.6%	6.6	1.6	A
	Subtotal	405	196	48.5%	24.9	4.5	C
SB	Left Turn	27	29	108.1%	32.4	11.2	C
	Through	26	27	103.1%	33.7	11.8	C
	Right Turn	54	52	96.3%	5.9	1.6	A
	Subtotal	107	108	100.9%	19.0	3.1	B
EB	Left Turn	13	14	104.6%	44.5	15.3	D
	Through	865	852	98.5%	19.5	2.3	B
	Right Turn	206	216	104.9%	3.1	0.5	A
	Subtotal	1,084	1,082	99.8%	16.6	1.8	B
WB	Left Turn	80	81	101.5%	33.9	2.6	C
	Through	848	821	96.8%	16.1	2.4	B
	Right Turn	23	19	81.7%	11.5	8.2	B
	Subtotal	951	921	96.9%	17.6	2.2	B
Total		2,547	2,307	90.6%	17.8	1.6	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	14	13	91.4%	43.7	14.8	D
	Through						
	Right Turn	5	6	128.0%	6.5	4.7	A
	Subtotal	19	19	101.1%	33.7	12.4	C
SB	Left Turn	5	5	96.0%	38.7	28.4	D
	Through	1	0	40.0%	1.3	4.0	A
	Right Turn	154	154	100.3%	8.9	3.2	A
	Subtotal	160	160	99.8%	10.1	3.3	B
EB	Left Turn	193	195	100.9%	40.0	3.4	D
	Through	751	743	98.9%	5.5	1.4	A
	Right Turn	10	10	100.0%	4.6	1.2	A
	Subtotal	954	948	99.3%	12.6	0.8	B
WB	Left Turn	5	5	96.0%	29.1	23.2	C
	Through	783	790	100.9%	9.1	2.1	A
	Right Turn	6	5	80.0%	4.7	4.0	A
	Subtotal	794	800	100.7%	9.3	2.2	A
Total		1,927	1,926	99.9%	11.2	1.2	B

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	276	261	94.5%	30.3	2.5	C
	Through	279	259	92.9%	28.9	3.0	C
	Right Turn	6	8	126.7%	21.0	19.3	C
	Subtotal	561	528	94.0%	29.5	2.2	C
SB	Left Turn	68	68	99.4%	32.5	9.6	C
	Through	251	240	95.8%	38.0	9.6	D
	Right Turn	12	13	110.0%	27.7	18.7	C
	Subtotal	331	321	97.0%	36.4	9.3	D
EB	Left Turn	26	23	87.7%	41.9	7.5	D
	Through	678	668	98.6%	21.2	2.0	C
	Right Turn	101	111	110.1%	18.3	4.3	B
	Subtotal	805	802	99.7%	21.4	2.0	C
WB	Left Turn	5	7	144.0%	25.0	25.4	C
	Through	578	580	100.4%	16.3	3.9	B
	Right Turn	111	118	105.9%	14.5	3.6	B
	Subtotal	694	705	101.6%	16.2	3.7	B
Total		2,391	2,356	98.6%	23.8	1.6	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	104.0%	18.8	19.7	B
	Through	62	59	94.8%	30.6	5.1	C
	Right Turn	36	38	104.4%	6.8	2.1	A
	Subtotal	103	102	98.6%	21.5	4.3	C
SB	Left Turn	5	1	24.0%	5.8	14.4	A
	Through	75	76	101.3%	24.4	3.9	C
	Right Turn	14	12	88.6%	6.5	3.5	A
	Subtotal	94	90	95.3%	21.8	3.7	C
EB	Left Turn	61	55	90.5%	36.9	6.5	D
	Through	665	652	98.0%	17.8	2.6	B
	Right Turn	26	26	101.5%	15.1	5.3	B
	Subtotal	752	733	97.5%	19.2	2.4	B
WB	Left Turn	73	89	121.6%	36.0	4.7	D
	Through	675	680	100.7%	9.1	1.9	A
	Right Turn	6	4	66.7%	4.2	4.6	A
	Subtotal	754	772	102.4%	12.2	1.8	B
Total		1,703	1,697	99.6%	16.3	1.1	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	69	114.7%	28.8	5.5	C
	Through	148	142	96.2%	22.9	5.5	C
	Right Turn	42	43	101.9%	14.1	8.7	B
	Subtotal	250	254	101.6%	22.7	4.6	C
SB	Left Turn	4	2	50.0%	16.0	33.4	B
	Through	26	29	112.3%	31.9	10.2	C
	Right Turn	9	9	102.2%	26.1	17.6	C
	Subtotal	39	40	103.6%	31.6	9.5	C
EB	Left Turn	5	4	80.0%	29.6	31.9	C
	Through	663	658	99.2%	21.3	4.4	C
	Right Turn	38	32	84.2%	19.2	6.4	B
	Subtotal	706	694	98.2%	21.4	4.3	C
WB	Left Turn	120	125	104.0%	32.5	6.6	C
	Through	687	692	100.8%	13.4	1.9	B
	Right Turn	5	6	128.0%	8.8	6.8	A
	Subtotal	812	824	101.4%	16.3	1.7	B
Total		1,807	1,812	100.3%	19.5	1.9	B

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	23.2	26.7	C
	Through	15	15	101.3%	34.1	9.7	C
	Right Turn	59	60	101.0%	7.1	1.7	A
	Subtotal	79	78	99.2%	14.0	3.5	B
SB	Left Turn	22	18	83.6%	35.7	10.0	D
	Through	6	8	140.0%	28.8	12.8	C
	Right Turn	24	28	115.0%	5.0	2.2	A
	Subtotal	52	54	104.6%	19.3	4.5	B
EB	Left Turn	11	10	94.5%	40.2	15.5	D
	Through	638	643	100.8%	16.0	3.2	B
	Right Turn	10	10	104.0%	10.1	6.2	B
	Subtotal	659	664	100.8%	16.3	3.1	B
WB	Left Turn	196	194	99.2%	34.0	3.6	C
	Through	660	655	99.3%	4.7	0.7	A
	Right Turn	5	2	32.0%	1.0	1.7	A
	Subtotal	861	851	98.9%	11.4	1.5	B
Total		1,651	1,648	99.8%	13.8	1.8	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	120.0%	19.3	23.9	B
	Through	6	6	100.0%	34.7	14.4	C
	Right Turn	4	3	80.0%	4.2	7.8	A
	Subtotal	12	12	96.7%	29.9	11.4	C
SB	Left Turn	30	37	124.0%	32.4	11.8	C
	Through	5	6	120.0%	33.7	26.2	C
	Right Turn	36	40	110.0%	13.0	4.3	B
	Subtotal	71	83	116.6%	23.5	6.5	C
EB	Left Turn	8	9	115.0%	46.6	24.3	D
	Through	679	695	102.4%	8.4	3.7	A
	Right Turn	32	29	91.3%	9.5	4.6	A
	Subtotal	719	734	102.0%	9.0	3.5	A
WB	Left Turn	14	16	117.1%	43.9	17.4	D
	Through	823	814	98.9%	9.6	1.6	A
	Right Turn	2	3	160.0%	4.0	7.0	A
	Subtotal	839	834	99.4%	10.3	1.5	B
Total		1,641	1,662	101.3%	10.5	2.2	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	331	114	34.4%	5.4	0.6	A
	Right Turn	3	2	66.7%	1.4	1.6	A
	Subtotal	334	116	34.7%	5.3	0.6	A
SB	Left Turn	50	56	111.2%	6.7	1.0	A
	Through	191	199	104.3%	6.8	1.0	A
	Right Turn						
	Subtotal	241	255	105.7%	6.7	1.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	24	28	115.0%	8.7	3.1	A
	Through						
	Right Turn	37	38	102.7%	4.7	0.8	A
	Subtotal	61	66	107.5%	6.3	1.0	A
Total		636	436	68.6%	6.3	0.5	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	36	104.7%	6.6	0.6	A
	Through	459	442	96.2%	10.2	1.5	B
	Right Turn	5	6	120.0%	5.9	4.8	A
	Subtotal	498	483	97.0%	9.9	1.5	A
SB	Left Turn	62	58	94.2%	7.9	1.0	A
	Through	282	276	97.7%	10.5	0.8	B
	Right Turn	13	14	110.8%	5.9	2.7	A
	Subtotal	357	348	97.6%	9.9	0.8	A
EB	Left Turn	10	11	108.0%	6.2	2.5	A
	Through	7	10	142.9%	5.2	3.1	A
	Right Turn	64	71	111.3%	4.6	0.7	A
	Subtotal	81	92	113.6%	5.0	0.6	A
WB	Left Turn	1	0	40.0%	0.7	2.3	A
	Through	8	9	110.0%	5.3	2.9	A
	Right Turn	92	91	99.1%	3.8	0.6	A
	Subtotal	101	100	99.4%	4.0	0.7	A
Total		1,037	1,024	98.7%	8.9	0.9	A

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	131	135	103.2%	10.3	2.2	B
	Right Turn	6	3	53.3%	3.0	2.2	A
	Subtotal	137	138	101.0%	10.2	2.2	B
SB	Left Turn	253	235	92.8%	11.1	0.9	B
	Through	174	170	97.7%	3.4	0.9	A
	Right Turn						
	Subtotal	427	405	94.8%	7.9	0.8	A
EB	Left Turn	1	2	160.0%	4.5	10.1	A
	Through	1	1	80.0%	4.4	11.0	A
	Right Turn	2	2	80.0%	1.0	1.8	A
	Subtotal	4	4	100.0%	9.7	13.0	A
WB	Left Turn	14	16	114.3%	10.8	4.8	B
	Through	2	3	140.0%	6.6	6.3	A
	Right Turn	192	193	100.6%	5.9	0.8	A
	Subtotal	208	212	101.9%	6.3	0.7	A
Total		776	759	97.8%	7.9	0.7	A

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	52	102.0%	6.3	0.5	A
	Through	64	71	111.3%	5.9	0.5	A
	Right Turn	3	4	146.7%	2.0	1.4	A
	Subtotal	118	128	108.1%	6.0	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	72	60	83.3%	7.2	0.7	A
	Through	164	158	96.6%	8.1	0.7	A
	Right Turn						
	Subtotal	236	218	92.5%	7.9	0.6	A
WB	Left Turn						
	Through	166	171	103.1%	6.0	0.3	A
	Right Turn	3	4	146.7%	2.7	2.3	A
	Subtotal	169	176	103.9%	6.0	0.3	A
Total		523	522	99.7%	6.8	0.2	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	77	71	92.5%	13.8	2.2	B
	Right Turn						
	Subtotal	77	71	92.5%	13.8	2.2	B
SB	Left Turn						
	Through	243	242	99.4%	12.2	1.4	B
	Right Turn	1	0	40.0%	1.0	1.1	A
	Subtotal	244	242	99.2%	12.2	1.4	B
EB	Left Turn	44	44	100.0%	19.4	4.0	B
	Through						
	Right Turn	295	292	98.8%	13.6	1.6	B
	Subtotal	339	336	99.0%	14.3	1.7	B
WB	Left Turn	5	3	64.0%	11.2	12.5	B
	Through	412	388	94.1%	7.8	1.7	A
	Right Turn	189	193	102.0%	4.5	0.5	A
	Subtotal	606	584	96.3%	6.7	1.2	A
Total		1,266	1,232	97.3%	10.3	0.8	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	86.7%	48.2	27.0	D
	Through	351	327	93.2%	15.9	5.7	B
	Right Turn	12	10	86.7%	7.1	3.4	A
	Subtotal	375	348	92.8%	16.9	6.1	B
SB	Left Turn	20	18	90.0%	58.3	19.8	E
	Through	497	489	98.4%	24.9	7.8	C
	Right Turn	5	8	152.0%	15.1	16.5	B
	Subtotal	522	514	98.5%	26.0	7.6	C
EB	Left Turn	5	3	56.0%	5.6	11.2	A
	Through	23	18	80.0%	18.4	10.6	B
	Right Turn	5	4	80.0%	7.7	16.4	A
	Subtotal	33	25	76.4%	16.4	9.2	B
WB	Left Turn	154	140	91.2%	58.1	23.1	E
	Through	2	2	80.0%	14.9	25.0	B
	Right Turn	14	14	100.0%	37.9	23.6	D
	Subtotal	170	156	91.8%	56.4	22.5	E
Total		1,100	1,044	94.9%	27.1	7.2	C

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	143	130	90.6%	19.2	3.0	B
	Right Turn	109	117	107.2%	8.4	1.6	A
	Subtotal	252	246	97.8%	14.2	2.3	B
SB	Left Turn	9	6	66.7%	4.0	2.3	A
	Through	221	219	99.2%	8.3	1.6	A
	Right Turn	67	60	89.0%	5.1	2.3	A
	Subtotal	297	285	95.9%	7.6	1.5	A
EB	Left Turn	10	8	80.0%	26.3	12.8	C
	Through	21	16	76.2%	23.4	13.0	C
	Right Turn	24	22	93.3%	7.7	3.3	A
	Subtotal	55	46	84.4%	15.9	4.4	B
WB	Left Turn	5	4	88.0%	11.6	13.4	B
	Through	103	104	101.0%	19.8	2.6	B
	Right Turn						
	Subtotal	108	108	100.4%	19.9	2.6	B
Total		712	686	96.3%	12.5	1.0	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	218	209	95.8%	10.2	2.0	B
	Through	256	257	100.5%	7.6	1.3	A
	Right Turn	4	3	80.0%	4.2	4.3	A
	Subtotal	478	469	98.2%	8.8	1.6	A
EB	Left Turn	48	43	89.2%	17.3	4.9	B
	Through	64	66	102.5%	18.3	3.0	B
	Right Turn	27	30	112.6%	9.0	4.0	A
	Subtotal	139	139	99.9%	16.1	3.3	B
WB	Left Turn	81	77	94.8%	31.2	2.0	C
	Through	104	108	103.5%	30.8	2.1	C
	Right Turn						
	Subtotal	185	184	99.7%	31.0	1.5	C
Total		802	792	98.8%	15.3	1.3	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	4	120.0%	1.6	1.6	A
	Through	241	248	102.7%	7.0	1.3	A
	Right Turn	135	131	97.2%	6.1	1.1	A
	Subtotal	379	382	100.9%	6.6	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	13	14	104.6%	14.7	7.8	B
	Through	252	245	97.1%	12.5	1.3	B
	Right Turn						
	Subtotal	265	258	97.5%	12.8	1.4	B
WB	Left Turn						
	Through	182	184	101.1%	9.0	1.3	A
	Right Turn						
	Subtotal	182	184	101.1%	9.0	1.3	A
Total		826	825	99.9%	9.1	1.0	A

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	410	402	98.1%	128.1	33.1	F
	Through	377	355	94.1%	23.2	8.9	C
	Right Turn						
	Subtotal	787	757	96.2%	79.1	19.5	E
SB	Left Turn						
	Through						
	Right Turn	766	742	96.9%	28.7	4.9	C
	Subtotal	766	742	96.9%	28.7	4.9	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,098	1,115	101.6%	5.8	0.5	A
	Right Turn	45	41	91.6%	3.7	0.7	A
	Subtotal	1,143	1,156	101.2%	5.7	0.5	A
Total		2,696	2,656	98.5%	33.1	5.7	C

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	29	26	91.0%	22.4	4.4	C
	Through	231	226	98.0%	22.9	2.8	C
	Right Turn						
	Subtotal	260	253	97.2%	22.9	2.8	C
SB	Left Turn						
	Through	182	184	101.3%	48.0	4.7	D
	Right Turn	68	62	90.6%	19.2	6.5	B
	Subtotal	250	246	98.4%	40.8	5.9	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	8	105.0%	45.7	19.0	D
	Through	1,046	1,056	101.0%	46.9	1.1	D
	Right Turn	21	19	89.5%	41.5	10.7	D
	Subtotal	1,075	1,084	100.8%	46.8	1.0	D
Total		1,585	1,582	99.8%	42.1	1.6	D

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	341	341	99.9%	19.8	2.0	B
	Right Turn	23	24	102.6%	6.2	3.4	A
	Subtotal	364	364	100.1%	18.8	1.6	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	139	135	97.3%	6.2	1.0	A
	Through	1,052	1,062	101.0%	6.9	0.9	A
	Right Turn						
	Subtotal	1,191	1,197	100.5%	6.8	0.9	A
Total		1,555	1,562	100.4%	9.6	0.8	A

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	187	193	103.3%	11.0	0.8	B
	Through	313	322	103.0%	21.0	2.1	C
	Right Turn						
	Subtotal	500	516	103.1%	17.3	1.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,004	998	99.4%	11.7	0.8	B
	Right Turn	66	55	83.6%	7.6	3.3	A
	Subtotal	1,070	1,053	98.4%	11.5	0.8	B
Total		1,570	1,569	99.9%	13.4	0.7	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	7	144.0%	34.9	21.0	C
	Through	608	592	97.4%	35.7	3.8	D
	Right Turn	20	23	116.0%	22.3	8.9	C
	Subtotal	633	623	98.4%	35.3	3.7	D
SB	Left Turn	234	240	102.4%	36.0	4.8	D
	Through	187	190	101.8%	38.2	5.1	D
	Right Turn						
	Subtotal	421	430	102.1%	37.0	3.7	D
EB	Left Turn	5	5	96.0%	19.4	17.8	B
	Through	447	444	99.4%	24.1	2.9	C
	Right Turn	163	159	97.4%	22.6	3.8	C
	Subtotal	615	608	98.9%	23.7	2.8	C
NB	Left Turn						
	Through						
	Right Turn	82	86	104.4%	5.3	1.4	A
	Subtotal	82	86	104.4%	5.3	1.4	A
Total		1,751	1,746	99.7%	30.1	2.5	C

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	295	288	97.8%	13.7	4.1	B
	Right Turn	245	244	99.8%	5.6	0.8	A
	Subtotal	540	533	98.7%	10.0	2.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	492	482	97.9%	29.1	24.8	C
	Through	829	830	100.1%	10.3	1.7	B
	Right Turn	50	53	105.6%	9.5	2.8	A
	Subtotal	1,371	1,364	99.5%	16.8	9.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,911	1,897	99.3%	14.9	7.0	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	11	12	112.7%	9.1	5.3	A
	Through	469	466	99.4%	12.0	0.4	B
	Right Turn						
	Subtotal	480	479	99.8%	12.0	0.5	B
EB	Left Turn						
	Through	834	852	102.2%	8.7	1.2	A
	Right Turn	302	309	102.3%	7.8	1.3	A
	Subtotal	1,136	1,161	102.2%	8.5	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,616	1,640	101.5%	9.5	0.8	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	319	299	93.8%	7.5	1.4	A
	Right Turn	51	46	90.2%	3.8	2.0	A
	Subtotal	370	345	93.3%	7.0	1.3	A
SB	Left Turn	165	168	101.8%	33.3	6.3	C
	Through	337	342	101.5%	9.1	5.3	A
	Right Turn						
	Subtotal	502	510	101.6%	17.1	6.0	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	185	178	96.0%	47.6	3.1	D
	Through						
	Right Turn	101	87	86.3%	18.1	3.7	B
	Subtotal	286	265	92.6%	37.9	3.6	D
Total		1,158	1,120	96.7%	18.9	2.6	B

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	19	16	84.2%	15.9	9.7	B
	Through	83	74	89.6%	7.0	1.5	A
	Right Turn	49	44	89.8%	3.5	1.0	A
	Subtotal	151	134	89.0%	7.2	1.7	A
SB	Left Turn	124	126	101.6%	16.3	3.1	B
	Through	188	181	96.4%	11.2	1.7	B
	Right Turn	10	8	76.0%	8.3	7.9	A
	Subtotal	322	315	97.8%	13.2	1.5	B
EB	Left Turn						
	Through	166	163	98.3%	10.2	2.7	B
	Right Turn	50	52	103.2%	3.2	2.2	A
	Subtotal	216	215	99.4%	8.6	2.1	A
WB	Left Turn	72	72	99.4%	30.2	8.2	C
	Through	257	240	93.4%	22.3	2.6	C
	Right Turn	84	78	92.4%	14.6	4.6	B
	Subtotal	413	389	94.2%	22.1	2.3	C
Total		1,102	1,053	95.6%	14.8	1.6	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	23.6	26.8	C
	Through	570	564	99.0%	24.0	1.7	C
	Right Turn	57	56	98.9%	5.8	0.8	A
	Subtotal	632	624	98.7%	22.4	1.4	C
SB	Left Turn	74	72	97.8%	39.3	5.1	D
	Through	276	285	103.3%	17.8	2.8	B
	Right Turn	291	309	106.3%	10.0	2.2	B
	Subtotal	641	667	104.0%	16.5	1.5	B
EB	Left Turn	235	225	95.7%	31.2	4.8	C
	Through	35	29	82.3%	17.4	6.4	B
	Right Turn	5	5	96.0%	1.2	1.5	A
	Subtotal	275	258	94.0%	29.4	4.9	C
WB	Left Turn	63	60	95.9%	42.2	6.7	D
	Through	116	118	101.4%	29.3	4.6	C
	Right Turn	82	90	109.8%	10.7	2.0	B
	Subtotal	261	268	102.7%	26.0	2.3	C
Total		1,809	1,817	100.5%	21.7	1.3	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	6	93.3%	22.2	26.2	C
	Through	368	345	93.7%	19.7	3.2	B
	Right Turn	45	48	107.6%	8.6	3.7	A
	Subtotal	419	399	95.2%	18.4	3.0	B
SB	Left Turn	38	38	100.0%	22.3	8.5	C
	Through	89	96	107.9%	23.6	2.5	C
	Right Turn	16	16	102.5%	3.7	1.4	A
	Subtotal	143	150	105.2%	21.1	2.0	C
EB	Left Turn	20	16	78.0%	28.1	12.4	C
	Through	144	143	99.4%	17.9	5.7	B
	Right Turn	2	2	100.0%	4.9	7.6	A
	Subtotal	166	161	96.9%	19.0	5.1	B
WB	Left Turn	18	10	57.8%	19.4	15.1	B
	Through	239	243	101.6%	17.6	3.8	B
	Right Turn	44	44	100.9%	7.6	3.6	A
	Subtotal	301	298	98.9%	16.4	3.2	B
Total		1,029	1,008	97.9%	18.2	2.1	B

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	78	79	101.0%	6.0	1.3	A
	Through	578	591	102.3%	4.5	0.7	A
	Right Turn	5	6	128.0%	2.6	4.1	A
	Subtotal	661	676	102.3%	4.7	0.7	A
EB	Left Turn						
	Through	95	91	96.0%	16.1	2.9	B
	Right Turn	8	7	85.0%	5.1	6.0	A
	Subtotal	103	98	95.1%	15.4	2.7	B
WB	Left Turn	20	17	86.0%	20.3	10.4	C
	Through	20	18	90.0%	16.5	7.1	B
	Right Turn						
	Subtotal	40	35	88.0%	20.0	4.1	C
Total		804	810	100.7%	6.7	0.6	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	18	14	80.0%	7.7	4.9	A
	Through	583	590	101.1%	7.2	1.4	A
	Right Turn	5	5	96.0%	2.8	3.8	A
	Subtotal	606	609	100.5%	7.2	1.4	A
EB	Left Turn						
	Through	116	112	96.6%	14.9	2.8	B
	Right Turn	99	95	95.8%	6.2	1.7	A
	Subtotal	215	207	96.2%	11.0	2.1	B
WB	Left Turn	7	5	74.3%	14.1	12.5	B
	Through	125	127	101.8%	15.7	2.2	B
	Right Turn						
	Subtotal	132	132	100.3%	15.8	2.1	B
Total		953	948	99.5%	9.2	0.9	A

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	208	218	104.8%	18.2	5.5	B
	Right Turn	146	136	92.9%	14.2	5.6	B
	Subtotal	354	354	99.9%	16.7	5.1	B
SB	Left Turn	57	67	117.2%	27.4	3.7	C
	Through	244	240	98.5%	11.9	1.7	B
	Right Turn						
	Subtotal	301	307	102.1%	15.3	1.6	B
EB	Left Turn	21	15	72.4%	9.8	7.7	A
	Through	695	689	99.2%	11.4	2.2	B
	Right Turn	69	71	103.2%	8.5	3.2	A
	Subtotal	785	776	98.8%	11.1	2.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,440	1,436	99.8%	13.4	1.7	B

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	40	42	105.0%	32.7	8.2	C
	Through						
	Right Turn	41	43	105.4%	34.7	7.0	C
	Subtotal	81	85	105.2%	34.2	6.4	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	630	626	99.4%	27.4	3.2	C
	Right Turn	166	156	93.7%	8.7	2.1	A
	Subtotal	796	782	98.2%	23.7	2.6	C
SW	Left Turn	28	31	110.0%	24.8	10.3	C
	Through	742	742	100.1%	20.8	2.3	C
	Right Turn	5	4	72.0%	2.6	2.1	A
	Subtotal	775	777	100.2%	20.8	2.3	C
Total		1,652	1,644	99.5%	22.9	2.1	C

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	138	136	98.8%	14.2	3.0	B
	Through	764	776	101.5%	12.4	0.8	B
	Right Turn	11	9	80.0%	2.0	1.7	A
	Subtotal	913	921	100.9%	12.6	0.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	272	254	93.4%	22.0	2.0	C
	Through	12	14	113.3%	22.0	10.2	C
	Right Turn						
	Subtotal	284	268	94.2%	22.0	2.0	C
WB	Left Turn						
	Through	4	4	100.0%	5.6	8.1	A
	Right Turn	18	19	106.7%	1.4	1.1	A
	Subtotal	22	23	105.5%	2.9	2.6	A
Total		1,219	1,212	99.4%	14.5	0.7	B

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	337	298	88.5%	24.3	2.8	C
	Through	101	97	95.8%	13.2	3.5	B
	Right Turn	9	4	44.4%	6.4	5.8	A
	Subtotal	447	399	89.3%	21.5	2.5	C
SB	Left Turn	73	70	96.4%	28.2	5.6	C
	Through	130	134	102.8%	17.7	3.8	B
	Right Turn	48	43	90.0%	11.9	4.7	B
	Subtotal	251	247	98.5%	20.0	1.7	C
EB	Left Turn	4	4	90.0%	11.3	16.1	B
	Through	475	470	99.0%	19.6	2.4	B
	Right Turn	97	103	106.0%	16.3	2.8	B
	Subtotal	576	577	100.1%	19.0	2.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,274	1,223	96.0%	20.1	1.4	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **Pre-Event Hour**

Intersection 39 **6th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	296	293	99.1%	12.5	3.3	B
	Subtotal	296	293	99.1%	12.5	3.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	489	482	98.7%	0.8	0.2	A
	Right Turn	67	65	96.7%	0.6	0.4	A
	Subtotal	556	547	98.4%	0.7	0.1	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		852	840	98.6%	4.9	1.5	A

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	5	4	88.0%	4.0	3.7	A
	Subtotal	5	4	88.0%	4.0	3.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	896	874	97.5%	1.5	0.2	A
	Right Turn	2	3	140.0%	0.4	0.7	A
	Subtotal	898	877	97.6%	1.5	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		903	881	97.6%	1.5	0.2	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	17	15	89.4%	10.4	6.1	B
	Right Turn	50	53	105.6%	6.6	1.1	A
	Subtotal	67	68	101.5%	7.4	1.4	A
SB	Left Turn	4	4	100.0%	16.1	20.6	B
	Through	284	280	98.7%	10.2	1.5	B
	Right Turn						
	Subtotal	288	284	98.8%	10.6	1.2	B
EB	Left Turn	144	140	97.2%	9.9	1.9	A
	Through	742	720	97.1%	8.4	0.9	A
	Right Turn	30	32	106.7%	5.9	2.4	A
	Subtotal	916	892	97.4%	8.6	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,271	1,245	97.9%	9.0	0.7	A

Intersection 42 **Bercut Dr/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	168	158	93.8%	11.1	1.4	B
	Right Turn	15	17	112.0%	5.4	2.1	A
	Subtotal	183	174	95.3%	10.5	1.4	B
SB	Left Turn	57	56	97.5%	6.3	1.4	A
	Through	106	98	92.5%	7.3	0.8	A
	Right Turn						
	Subtotal	163	154	94.2%	6.9	0.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn	153	150	98.3%	5.7	1.9	A
	Subtotal	153	150	98.3%	5.7	1.9	A
Total		499	478	95.9%	7.9	1.2	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	96.0%	13.9	14.7	B
	Through	331	307	92.8%	10.0	1.9	A
	Right Turn	22	27	121.8%	6.9	2.8	A
	Subtotal	358	339	94.6%	9.9	2.0	A
SB	Left Turn	14	13	94.3%	29.5	8.3	C
	Through	218	222	101.8%	9.6	1.2	A
	Right Turn	34	40	117.6%	5.1	2.0	A
	Subtotal	266	275	103.5%	10.0	1.4	B
EB	Left Turn	24	20	85.0%	9.5	4.3	A
	Through	35	36	104.0%	7.6	3.3	A
	Right Turn	5	6	120.0%	3.1	3.7	A
	Subtotal	64	63	98.1%	8.1	2.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		688	677	98.4%	9.8	1.4	A

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	18	17	93.3%	6.0	2.2	A
	Right Turn	16	17	107.5%	3.7	1.6	A
	Subtotal	34	34	100.0%	5.5	1.0	A
SB	Left Turn						
	Through	10	8	84.0%	4.6	2.8	A
	Right Turn						
	Subtotal	10	8	84.0%	4.6	2.8	A
EB	Left Turn	10	12	120.0%	2.4	0.5	A
	Through	47	49	104.7%	0.9	0.2	A
	Right Turn	14	16	111.4%	0.9	0.5	A
	Subtotal	71	77	108.2%	1.1	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		115	119	103.7%	2.6	0.3	A

Intersection 45 **6th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	284	259	91.3%	14.9	1.9	B
	Right Turn	19	24	124.2%	10.9	4.3	B
	Subtotal	303	283	93.3%	14.6	2.0	B
SB	Left Turn	3	2	66.7%	1.7	2.8	A
	Through	132	132	99.7%	7.8	1.0	A
	Right Turn						
	Subtotal	135	134	99.0%	7.8	1.0	A
EB	Left Turn	34	34	98.8%	1.3	0.3	A
	Through	15	17	112.0%	1.3	0.5	A
	Right Turn	14	14	102.9%	1.2	0.4	A
	Subtotal	63	65	102.9%	1.3	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		501	481	96.0%	10.9	1.6	B

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	346	333	96.3%	9.9	1.6	A
	Right Turn	45	50	111.1%	6.9	3.0	A
	Subtotal	391	383	98.0%	9.5	1.5	A
SB	Left Turn	31	27	86.5%	42.0	10.0	D
	Through	200	198	99.2%	3.9	1.3	A
	Right Turn						
	Subtotal	231	225	97.5%	8.4	3.3	A
EB	Left Turn	21	27	129.5%	23.5	13.9	C
	Through	15	16	104.0%	21.3	12.7	C
	Right Turn	1	1	120.0%	1.2	1.9	A
	Subtotal	37	44	118.9%	22.7	10.4	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		659	652	99.0%	10.1	1.7	B

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	38.7	43.4	D
	Through	168	142	84.3%	43.8	8.2	D
	Right Turn	5	3	56.0%	24.7	30.7	C
	Subtotal	178	148	83.1%	44.1	8.6	D
SB	Left Turn	164	159	97.1%	54.0	5.9	D
	Through	170	172	101.4%	31.3	5.1	C
	Right Turn	44	40	90.0%	27.1	9.4	C
	Subtotal	378	371	98.2%	40.7	3.2	D
EB	Left Turn						
	Through	678	672	99.1%	20.7	2.5	C
	Right Turn	5	6	112.0%	21.1	14.3	C
	Subtotal	683	678	99.2%	20.7	2.5	C
WB	Left Turn						
	Through	856	874	102.1%	12.0	2.1	B
	Right Turn	76	66	86.3%	2.7	1.0	A
	Subtotal	932	940	100.8%	11.3	1.9	B
Total		2,171	2,136	98.4%	21.7	1.7	C

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	49	58	118.4%	58.5	8.0	E
	Through	35	38	109.7%	36.2	11.8	D
	Right Turn						
	Subtotal	84	96	114.8%	50.0	4.2	D
SB	Left Turn	1	1	80.0%	13.3	29.1	B
	Through	13	12	95.4%	38.6	18.9	D
	Right Turn	92	82	88.7%	24.1	5.8	C
	Subtotal	106	95	89.4%	26.1	6.4	C
EB	Left Turn	209	177	84.6%	58.9	4.4	E
	Through	414	422	101.8%	11.7	2.0	B
	Right Turn	224	226	100.9%	8.2	1.2	A
	Subtotal	847	824	97.3%	21.0	2.3	C
WB	Left Turn	1	1	80.0%	14.9	25.6	B
	Through	700	729	104.2%	20.0	4.8	B
	Right Turn	30	30	100.0%	5.7	2.5	A
	Subtotal	731	760	104.0%	19.5	4.7	B
Total		1,768	1,776	100.4%	22.2	2.5	C

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	27	69.7%	60.3	14.8	E
	Through	38	32	84.2%	29.9	7.1	C
	Right Turn	24	20	85.0%	11.5	7.8	B
	Subtotal	101	80	78.8%	35.7	9.4	D
SB	Left Turn	14	12	85.7%	55.5	19.4	E
	Through	23	21	92.2%	34.3	15.0	C
	Right Turn	5	8	160.0%	5.9	5.4	A
	Subtotal	42	41	98.1%	34.4	9.5	C
EB	Left Turn	15	14	90.7%	65.5	18.4	E
	Through	363	368	101.5%	5.1	1.7	A
	Right Turn	26	32	124.6%	3.2	2.0	A
	Subtotal	404	414	102.6%	7.0	2.0	A
WB	Left Turn	23	28	121.7%	63.4	10.4	E
	Through	603	637	105.7%	7.6	1.0	A
	Right Turn	75	80	106.1%	3.4	1.7	A
	Subtotal	701	745	106.2%	9.2	0.8	A
Total		1,248	1,280	102.6%	11.0	1.1	B

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	2	53.3%	19.0	28.7	B
	Through	5	4	72.0%	27.1	29.5	C
	Right Turn	21	24	114.3%	5.9	1.9	A
	Subtotal	29	29	100.7%	11.1	6.0	B
SB	Left Turn	7	9	125.7%	35.2	16.8	D
	Through	14	12	88.6%	30.6	22.1	C
	Right Turn	5	6	112.0%	6.0	6.6	A
	Subtotal	26	27	103.1%	25.6	13.2	C
EB	Left Turn	5	2	40.0%	29.2	39.8	C
	Through	418	417	99.7%	5.2	1.7	A
	Right Turn	14	15	105.7%	2.6	4.1	A
	Subtotal	437	434	99.2%	5.4	1.7	A
WB	Left Turn	10	9	92.0%	49.2	29.8	D
	Through	681	721	105.9%	4.9	0.8	A
	Right Turn	17	18	103.5%	4.1	5.7	A
	Subtotal	708	748	105.6%	5.5	1.0	A
Total		1,200	1,238	103.1%	6.1	1.2	A

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	95	91	95.6%	61.9	8.4	E
	Through	142	146	103.1%	34.6	7.0	C
	Right Turn	65	59	90.5%	25.6	9.3	C
	Subtotal	302	296	98.0%	41.0	5.8	D
SB	Left Turn	5	6	112.0%	65.5	39.8	E
	Through	118	118	100.3%	43.5	3.0	D
	Right Turn	90	85	94.7%	30.0	7.1	C
	Subtotal	213	209	98.2%	39.1	3.8	D
EB	Left Turn	57	54	94.0%	61.7	9.6	E
	Through	356	349	98.1%	11.2	2.0	B
	Right Turn	33	33	99.4%	8.0	3.8	A
	Subtotal	446	436	97.7%	17.0	2.6	B
WB	Left Turn	13	13	101.5%	67.3	13.1	E
	Through	523	578	110.5%	9.3	2.5	A
	Right Turn	140	131	93.7%	5.9	2.0	A
	Subtotal	676	722	106.9%	9.7	2.4	A
Total		1,637	1,663	101.6%	20.9	2.2	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	25	25	99.2%	6.9	2.4	A
	Subtotal	25	25	99.2%	6.9	2.4	A
EB	Left Turn	14	15	105.7%	7.1	4.7	A
	Through	412	402	97.5%	2.0	0.8	A
	Right Turn						
	Subtotal	426	416	97.7%	2.2	1.0	A
WB	Left Turn						
	Through	651	698	107.2%	0.9	0.2	A
	Right Turn	17	16	96.5%	0.6	0.4	A
	Subtotal	668	714	106.9%	0.9	0.2	A
Total		1,119	1,156	103.3%	1.5	0.4	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	9	115.0%	37.5	27.2	D
	Through	153	154	100.7%	40.8	5.3	D
	Right Turn	34	39	115.3%	28.3	10.0	C
	Subtotal	195	202	103.8%	38.8	5.4	D
SB	Left Turn	64	66	103.1%	67.8	11.5	E
	Through	82	87	105.9%	36.0	7.3	D
	Right Turn	41	46	112.2%	22.7	7.6	C
	Subtotal	187	199	106.3%	43.6	6.6	D
EB	Left Turn	138	109	79.1%	59.1	6.6	E
	Through	266	284	106.8%	31.7	3.3	C
	Right Turn	8	9	110.0%	25.1	14.4	C
	Subtotal	412	402	97.6%	39.1	2.5	D
WB	Left Turn	238	236	99.3%	22.2	4.7	C
	Through	619	646	104.4%	6.2	1.3	A
	Right Turn	7	12	165.7%	2.2	1.8	A
	Subtotal	864	894	103.5%	10.4	1.9	B
Total		1,658	1,698	102.4%	24.4	1.1	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	317	351	110.8%	43.2	6.7	D
	Through	199	208	104.3%	17.0	2.6	B
	Right Turn						
	Subtotal	516	559	108.3%	33.5	4.5	C
SB	Left Turn						
	Through	143	142	99.0%	38.4	7.3	D
	Right Turn	58	66	114.5%	28.2	9.5	C
	Subtotal	201	208	103.5%	35.1	6.7	D
EB	Left Turn	190	171	90.1%	31.5	2.8	C
	Through						
	Right Turn	174	186	106.7%	17.0	2.4	B
	Subtotal	364	357	98.0%	23.9	2.4	C
WB	Left Turn	281	256	91.2%	41.5	4.2	D
	Through	489	462	94.5%	42.8	3.8	D
	Right Turn	2	4	180.0%	19.1	21.6	B
	Subtotal	772	722	93.5%	42.1	2.6	D
Total		1,853	1,846	99.6%	35.2	1.8	D

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	5	3	56.0%	2.6	2.4	A
	Subtotal	5	3	56.0%	2.3	2.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	722	718	99.5%	0.3	0.1	A
	Right Turn	5	6	128.0%	0.1	0.1	A
	Subtotal	727	725	99.7%	0.3	0.1	A
Total		732	728	99.4%	0.3	0.1	A

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	275	264	96.0%	7.1	1.1	A
	Subtotal	275	264	96.0%	7.1	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	441	447	101.3%	8.3	1.6	A
	Right Turn	9	11	124.4%	6.3	2.0	A
	Subtotal	450	458	101.8%	8.3	1.6	A
Total		725	722	99.6%	7.8	1.2	A

Intersection 57 **Bercut Dr/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	10.6	12.6	B
	Through	84	88	105.2%	14.3	2.6	B
	Right Turn	93	95	101.9%	7.5	2.3	A
	Subtotal	182	186	102.4%	10.8	2.0	B
SB	Left Turn	132	136	102.7%	21.6	3.5	C
	Through	62	63	101.9%	7.3	2.2	A
	Right Turn	5	4	80.0%	1.4	1.5	A
	Subtotal	199	203	101.9%	16.9	2.9	B
EB	Left Turn	5	6	128.0%	8.9	7.2	A
	Through	165	165	100.1%	11.7	3.4	B
	Right Turn	5	5	96.0%	4.4	5.8	A
	Subtotal	175	176	100.8%	11.5	3.2	B
WB	Left Turn	86	76	87.9%	17.5	4.5	B
	Through	168	152	90.5%	15.2	2.9	B
	Right Turn	5	6	112.0%	6.9	6.5	A
	Subtotal	259	233	90.0%	15.7	3.1	B
Total		815	799	98.0%	13.9	2.1	B

Intersection 58 **Huntington St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	24	26	110.0%	6.4	1.1	A
	Through						
	Right Turn	2	4	220.0%	3.1	1.7	A
	Subtotal	26	31	118.5%	6.1	1.0	A
EB	Left Turn	2	2	100.0%	4.6	4.3	A
	Through	444	452	101.7%	9.8	0.9	A
	Right Turn						
	Subtotal	446	454	101.7%	9.8	0.9	A
WB	Left Turn						
	Through	299	265	88.7%	8.9	0.3	A
	Right Turn	75	66	88.0%	5.9	0.5	A
	Subtotal	374	331	88.6%	8.3	0.3	A
Total		846	816	96.4%	9.1	0.6	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	75	29	38.9%	6.3	1.3	A
	Through						
	Right Turn	20	7	34.0%	3.6	2.0	A
	Subtotal	95	36	37.9%	5.9	1.3	A
EB	Left Turn	11	4	36.4%	11.2	7.8	B
	Through	742	516	69.6%	15.3	7.2	C
	Right Turn						
	Subtotal	753	520	69.1%	15.3	7.2	C
WB	Left Turn						
	Through	403	331	82.1%	9.1	0.5	A
	Right Turn	80	25	31.5%	6.1	2.1	A
	Subtotal	483	356	73.7%	8.9	0.5	A
Total		1,331	912	68.5%	12.5	4.4	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	153	494.2%	29.9	3.0	C
	Through	229	166	72.5%	16.3	2.5	B
	Right Turn	212	64	30.2%	13.4	3.0	B
	Subtotal	472	383	81.2%	21.3	1.4	C
SB	Left Turn	41	30	73.2%	37.8	11.9	D
	Through	339	124	36.5%	23.7	5.7	C
	Right Turn	31	14	46.5%	15.7	9.9	B
	Subtotal	411	168	40.9%	25.4	5.7	C
EB	Left Turn	85	16	19.3%	49.1	15.1	D
	Through	398	250	62.7%	29.3	4.4	C
	Right Turn	334	277	82.9%	21.8	5.3	C
	Subtotal	817	543	66.4%	26.1	4.8	C
WB	Left Turn	31	18	58.1%	38.3	17.9	D
	Through	229	187	81.7%	15.2	2.5	B
	Right Turn	212	117	55.3%	11.2	2.3	B
	Subtotal	472	322	68.3%	15.2	1.7	B
Total		2,172	1,416	65.2%	22.2	1.9	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	198	76.6%	25.5	1.9	C
	Through	348	76	21.8%	8.8	2.6	A
	Right Turn						
	Subtotal	606	274	45.1%	20.9	1.3	C
SB	Left Turn						
	Through	510	290	56.9%	17.1	3.3	B
	Right Turn	106	50	46.8%	13.3	4.4	B
	Subtotal	616	340	55.2%	16.5	3.2	B
EB	Left Turn	164	131	79.8%	19.4	3.2	B
	Through						
	Right Turn	243	218	89.7%	9.5	2.6	A
	Subtotal	407	349	85.7%	13.3	2.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,629	962	59.1%	16.6	0.9	B

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	493	380	77.0%	3.6	1.1	A
	Right Turn	91	30	33.0%	3.4	1.8	A
	Subtotal	584	410	70.1%	3.6	1.0	A
SB	Left Turn	30	2	6.7%	2.8	5.4	A
	Through	674	418	62.0%	1.9	0.3	A
	Right Turn						
	Subtotal	704	420	59.7%	1.9	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	89	111	124.9%	15.7	5.0	C
	Through						
	Right Turn	60	8	12.7%	11.3	11.7	B
	Subtotal	149	119	79.7%	15.4	4.8	C
Total		1,437	948	66.0%	4.4	1.1	A

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **Pre-Event Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	10	12.6%	7.7	7.3	A
	Through	606	276	45.5%	2.9	1.1	A
	Right Turn						
	Subtotal	682	285	41.8%	3.1	1.2	A
SB	Left Turn						
	Through	680	406	59.6%	3.7	0.7	A
	Right Turn	73	104	143.0%	2.8	0.6	A
	Subtotal	753	510	67.7%	3.5	0.7	A
EB	Left Turn						
	Through						
	Right Turn	108	32	29.3%	6.3	3.3	A
	Subtotal	108	32	29.3%	6.3	3.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,543	827	53.6%	3.5	0.6	A

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	192	86	45.0%	38.4	6.4	D
	Through	344	214	62.2%	24.0	4.0	C
	Right Turn	433	315	72.8%	17.5	3.4	B
	Subtotal	969	616	63.5%	22.7	3.3	C
SB	Left Turn	108	83	76.7%	40.2	4.2	D
	Through	245	160	65.1%	22.1	4.8	C
	Right Turn	21	17	80.0%	8.5	6.8	A
	Subtotal	374	259	69.3%	27.0	4.1	C
EB	Left Turn	31	5	15.5%	47.7	29.8	D
	Through	248	218	87.7%	28.3	3.8	C
	Right Turn	161	77	47.7%	4.7	1.5	A
	Subtotal	440	299	68.0%	22.7	3.4	C
WB	Left Turn	394	238	60.3%	48.7	9.2	D
	Through	371	298	80.2%	24.0	5.5	C
	Right Turn	171	126	73.5%	12.2	3.5	B
	Subtotal	936	661	70.6%	30.8	6.6	C
Total		2,719	1,835	67.5%	26.2	3.0	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative No Project (2007 Railyards Plan)**
Volume and Delay by Movement | **Pre-Event Hour**

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	9	27.5%	17.7	13.7	B
	Through	18	6	35.6%	16.8	15.8	B
	Right Turn	569	108	18.9%	6.6	1.4	A
	Subtotal	619	123	19.8%	8.4	1.7	A
SB	Left Turn	5	5	96.0%	23.2	21.8	C
	Through	15	6	40.0%	20.3	16.3	C
	Right Turn	11	27	243.6%	13.3	6.1	B
	Subtotal	31	38	121.3%	16.5	6.5	B
EB	Left Turn	16	16	100.0%	39.6	13.6	D
	Through	749	588	78.5%	14.4	2.7	B
	Right Turn	24	23	95.0%	10.3	4.9	B
	Subtotal	789	627	79.4%	14.9	2.8	B
WB	Left Turn	559	236	42.2%	33.9	4.9	C
	Through	893	644	72.1%	15.6	2.5	B
	Right Turn	33	9	26.7%	9.8	5.6	A
	Subtotal	1,485	889	59.9%	20.5	1.8	C
Total		2,924	1,676	57.3%	17.4	1.8	B

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,475	150	22	200	75	200	104	1%	0%
	Through/Right	275	50	15	100	45	100	63	0%	0%
SB	Left Turn	1,425	125	9	175	30	175	51	0%	0%
	Left/Through	1,425	150	14	200	23	200	24	0%	0%
	Right Turn	325	50	6	50	14	50	17	0%	0%
WB	Left Turn	1,275	75	12	125	22	125	30	0%	0%
	Through	275	50	12	100	23	100	27	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	150	20	225	52	225	39	3%	0%
	Through	275	25	14	50	57	100	116	0%	0%
NB	Left Turn	325	75	13	100	17	100	20	0%	0%
	Through/Right	1,175	75	10	100	26	100	35	0%	0%
	Right Turn	1,175	50	6	75	10	75	13	0%	0%
WB	Through	225	100	15	150	25	175	39	0%	0%
	Through/Right	225	150	16	225	20	225	23	0%	0%
	Right Turn	225	125	19	200	28	200	18	0%	0%
0										

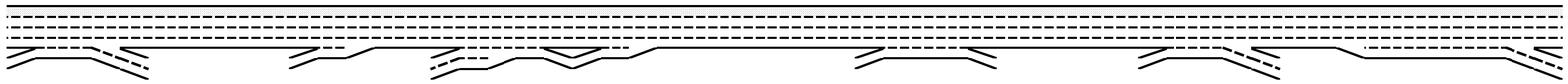
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	100	10	150	19	150	21	0%	0%
	Through	600	100	12	150	19	125	22	0%	0%
	Through/Right	600	100	10	150	20	150	26	0%	0%
	Right Turn	600	75	13	125	20	125	29	0%	0%
NB	Right Turn	1,075	25	4	50	13	50	16	0%	0%
NE	Shared	1,000	200	20	300	41	300	44	0%	0%
	Right Turn	1,000	25	0	25	0	25	0	0%	0%
	Right Turn	1,000	25	0	25	0	25	0	0%	0%
	Right Turns	350	100	20	175	26	150	23	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

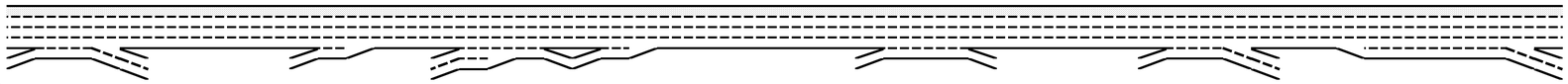
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	600	740	1,900	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	5,725	5,464	5,464	6,077	6,077	6,687	6,687	6,790	6,790	6,886	6,886
On Ramp Volume	372		613	966	208		811		775		
Off Ramp Volume	633			356			708		679		1,505
Express Lane Volume	1,151	956	956	1,114	1,144	1,132	1,132	1,120	1,120	1,136	1,136
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	4,574	4,508	4,508	4,963	4,933	5,555	5,555	5,670	5,670	5,750	5,750
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,326	5,250	5,250	5,779	5,744	6,468	6,468	6,602	6,602	6,696	6,696
Flow (pcphpl)	1,332	1,312	1,312	1,445	1,436	1,617	1,617	1,651	1,651	1,674	1,339
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.57	0.56	0.56	0.61	0.61	0.69	0.69	0.70	0.70	0.71	0.57
Speed (mph)	65.0	65.0	65.0	65.0	65.0	64.3	64.3	64.1	64.1	63.9	65.0
Density (pcphpl)	20.5	20.2	20.2	22.2	22.1	25.1	25.1	25.7	25.7	26.2	20.6
LOS	C	C	C	C	C	C	C	C	C	D	C
Calculate Operations for Segment GP Lanes											
Flow (pcph)	5,746		5,941	6,868	5,966		7,383		7,476		
Lanes	5	4	4	5	4	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750	9,400		11,750		11,750		
v/c ratio	0.49		0.63	0.58	0.63		0.63		0.64		
Flow Rate (pcphpl)	1,149		1,485	1,374	1,492		1,477		1,495		
Speed (mph)	65.0		64.9	65.0	64.9		64.9		64.9		
Density (pcphpl)	17.7		22.9	21.1	23.0		22.7		23.0		
LOS	B		C	C	C		C		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

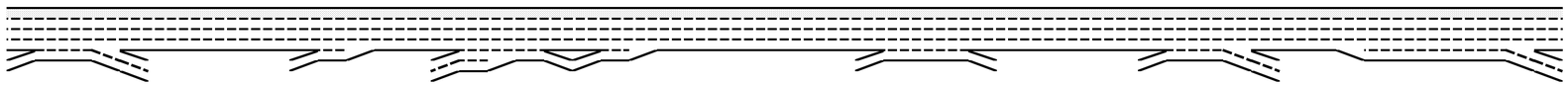
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	5,032			6,467			6,618		6,735		5,015
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.54			0.69			0.70		0.72		0.53
Flow Rate (pcphpl)	1,258			1,617			1,655		1,684		1,254
Speed (mph)	65.0			64.3			64.1		63.9		65.0
Density (pcphpl)	19.4			25.1			25.8		26.4		19.3
LOS	C			C			C		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



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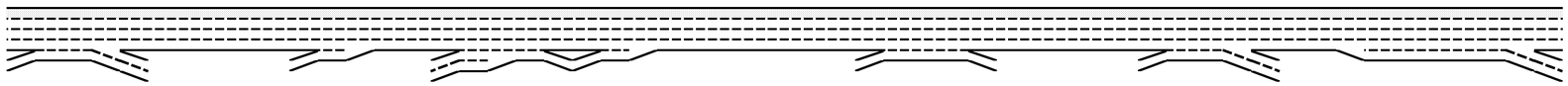
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,151	956	956	1,114	1,144	1,132	1,132	1,120	1,120	1,136	1,136
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,224	1,016	1,016	1,185	1,216	1,204	1,204	1,191	1,191	1,207	1,207
Flow Rate (pcphpl)	1,224	1,016	1,016	1,185	1,216	1,204	1,204	1,191	1,191	1,207	1,207
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.70	0.58	0.58	0.68	0.69	0.69	0.69	0.68	0.68	0.69	0.69
Calculate On Ramp Flow Rate											
Volume (vph)	372		613	966	208		811		775		
PHF	0.9		0.9	0.9	0.95		0.9		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	420		691	1,089	222		915		874		
Flow Rate (pcphpl)	420		691	545	222		915		874		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.20		0.33	0.26	0.11		0.44		0.42		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

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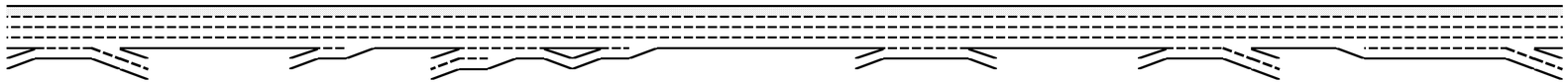
Calculate Off Ramp Flow Rate											
Volume (vph)	633			356			708		679		1,505
PHF	0.9			0.9			0.94		0.93		0.94
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	714			401			764		741		1,681
Flow Rate (pcphpl)	357			401			764		371		841
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.17			0.19			0.36		0.18		0.37
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			5,250		5,744						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.131		0.190						
v_{12} (pcph)			690		1,092						
v_3 (pcph)											
v_{34} (pcph)			4,560		4,653						
v_{12a} (pcph)			2,100		2,298						
v_{R12a} (pcph)			2,791		2,520						
Speed Index			0.35		0.32						
Area Speed			57.0		57.7						
Outer Lanes Volume			1,575		1,723						
Outer Lanes Speed			61.1		60.6						
Segment Speed			59.1		59.3						
v/c ratio			0.61		0.55						
Density			24.3		21.3						
LOS			C		C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key
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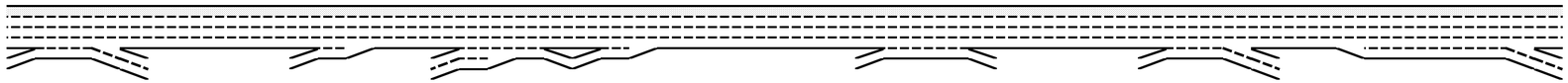
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											23.4
LOS											C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)											
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)											

Location	1	2	3	4	4	5	6	7	8	9	10



Key

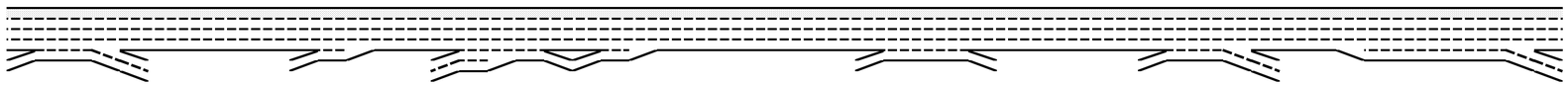
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)											
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

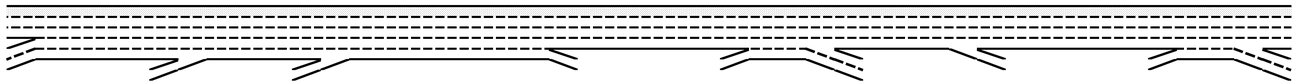
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.56	0.61		0.55	0.69		0.70		0.71	
Segment Density		20.2	24.3		21.3	25.1		25.7		26.2	23.4
Segment LOS		C	C		C	C		C		D	C
Over Capacity											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

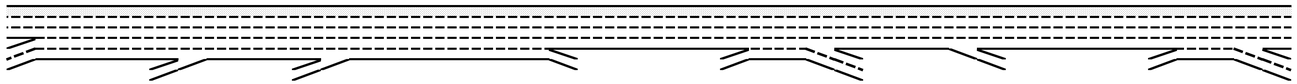
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	3,545	4,785	5,028	5,187	4,784	4,784	4,784	4,570	4,570
On Ramp Volume	1,240	243	159			538			383
Off Ramp Volume				403		752	200		615
Express Lane Volume	620	739	777	834	770	770	743	711	711
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	2,925	4,046	4,251	4,353	4,014	4,014	4,041	3,859	3,859
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,406	4,712	4,951	5,069	4,675	4,675	4,706	4,494	4,494
Flow (pcphpl)	1,135	942	990	1,014	1,169	1,169	1,176	1,124	1,124
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400	9,400
v/c ratio	0.48	0.40	0.42	0.43	0.50	0.50	0.50	0.48	0.48
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	17.5	14.5	15.2	15.6	18.0	18.0	18.1	17.3	17.3
LOS	B	B	B	B	B	B	C	B	B
Calculate Operations for Segment GP Lanes									
Flow (pcph)	4,853	4,983	5,130			5,281			4,926
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.41	0.42	0.44			0.45			0.42
Flow Rate (pcphpl)	971	997	1,026			1,056			985
Speed (mph)	65.0	65.0	65.0			65.0			65.0
Density (pcphpl)	14.9	15.3	15.8			16.3			15.2
LOS	B	B	B			B			B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

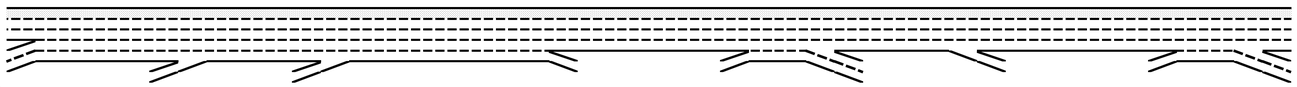
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				4,634		4,442	4,492		4,232
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.49		0.47	0.48		0.45
Flow Rate (pcphpl)				1,158		1,111	1,123		1,058
Speed (mph)				65.0		65.0	65.0		65.0
Density (pcphpl)				17.8		17.1	17.3		16.3
LOS				B		B	B		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

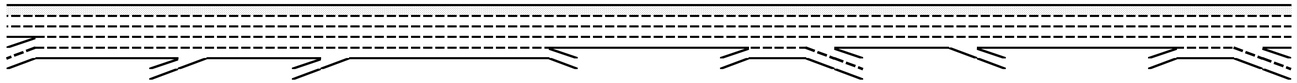
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	620	739	777	834	770	770	743	711	711
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	659	785	826	886	818	818	790	755	755
Flow Rate (pcphpl)	659	785	826	886	818	818	790	755	755
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.38	0.45	0.47	0.51	0.47	0.47	0.45	0.43	0.43
Calculate On Ramp Flow Rate									
Volume (vph)	1,240	243	159			538			383
PHF	0.9	0.91	0.9			0.9			0.9
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	1,447	271	179			607			432
Flow Rate (pcphpl)	723	271	179			607			432
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.31	0.13	0.09			0.29			0.21

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

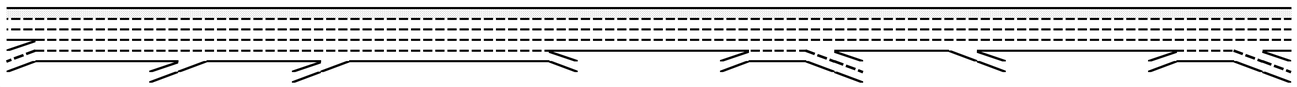
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				403		752	200		615
PHF				0.94		0.91	0.95		0.9
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				435		839	214		694
Flow Rate (pcphpl)				435		419	214		347
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.21		0.20	0.10		0.17
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		3,675	3,861						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.184	0.195						
v_{12} (pcph)		676	754						
v_3 (pcph)									
v_{34} (pcph)		2,999	3,107						
v_{12a} (pcph)		1,470	1,545						
v_{R12a} (pcph)		1,741	1,724						
Speed Index		0.33	0.32						
Area Speed		57.3	57.7						
Outer Lanes Volume		1,103	1,158						
Outer Lanes Speed		62.8	62.6						
Segment Speed		60.3	60.4						
v/c ratio		0.38	0.37						
Density		18.3	17.1						
LOS		B	B						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

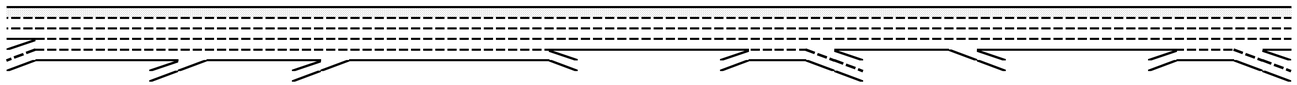
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				4,562			4,706		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.626			0.633		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				2,235			2,172		
v_3 (pcph)									
v_{34} (pcph)				2,328			2,533		
v_{12a} (pcph)				2,235			2,172		
Speed Index				0.34			0.32		
Area Speed				57.2			57.7		
Outer Lanes Volume				1,164			1,267		
Outer Lanes Speed				70.7			70.3		
Segment Speed				63.4			63.8		
v/c ratio				0.51			0.49		
Density				16.7			21.7		
LOS				B			C		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

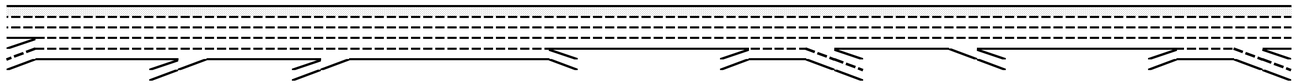
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative No Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

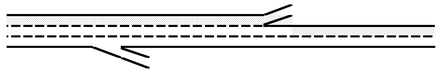
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.41	0.38	0.37	0.51	0.50		0.49	0.48	
Segment Density	14.9	18.3	17.1	16.7	18.0		21.7	17.3	
Segment LOS	B	B	B	B	B		C	B	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative NoProject
Time Period: Pre-Event Peak Hour

Location	1	2	3

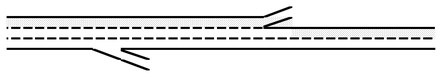


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	2,318	2,092	1,348
On Ramp Volume			
Off Ramp Volume	226	744	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	2,318	2,092	1,348
PHF	0.85	0.85	0.85
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	2,768	2,498	1,610
Flow (pcphpl)	923	833	805
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.39	0.35	0.34
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	14.2	11.9	11.5
LOS	B	B	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

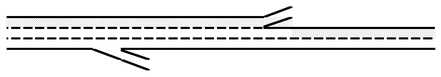


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,498	1,610	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.35	0.34	
Flow Rate (pcphpl)	833	805	
Speed (mph)	65.0	70.0	
Density (pcphpl)	12.8	11.5	
LOS	B	B	

Location	1	2	3

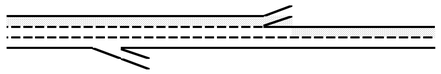


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

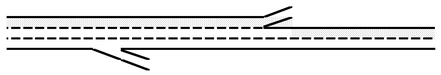


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	226	744	
PHF	0.85	0.85	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	270	888	
Flow Rate (pcphpl)	270	888	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.13	0.44	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		270	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

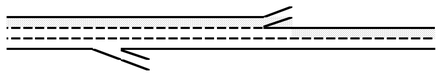


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	2,768		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.678		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.678		
v_{12} (pcph)	1,965		
v_3 (pcph)	803		
v_{34} (pcph)			
v_{12a} (pcph)	1,965		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	803		
Outer Lanes Speed	71.3		
Segment Speed	61.0		
v/c ratio	0.45		
Density	19.8		
LOS	B		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

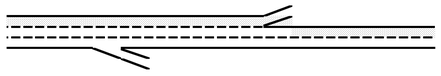


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

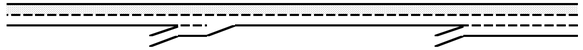
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.45	0.35	0.34
Segment Density	19.8	11.9	11.5
Segment LOS	B	B	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative NoProject
Time Period: Pre-Event Peak Hour

Location	1	2	3	4



Key

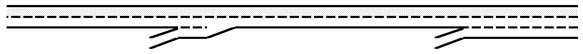
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	1,235	1,235	1,499	1,499
On Ramp Volume		264		197
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	1,235	1,235	1,499	1,499
PHF	0.85	0.85	0.85	0.85
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	1,475	1,475	1,790	1,790
Flow (pcphpl)	737	737	895	597
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.33	0.31	0.38	0.25
Speed (mph)	55.0	65.0	65.0	65.0
Density (pcphpl)	13.4	11.3	13.8	9.2
LOS	B	B	B	A
Operations for Segment GP Lanes				
Flow (pcph)		1,790		2,025
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.38		0.29
Flow Rate (pcphpl)		895		675
Speed (mph)		65.0		65.0
Density (pcphpl)		13.8		10.4
LOS		B		A

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative NoProject
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

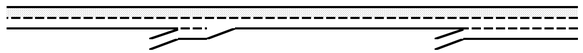


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4



Key

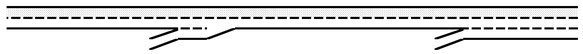
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		264		197
PHF		0.85		0.85
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		315		235
Flow Rate (pcphpl)		315		235
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.15		0.11

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative NoProject
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

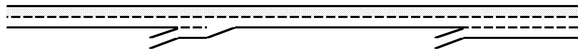


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		1,475		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		1,475		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		1,475		
v_{R12a} (pcph)		1,790		
Speed Index		0.28		
Area Speed		58.6		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		58.6		
v/c ratio		0.39		
Density		14.6		
LOS		B		

Location	1	2	3	4

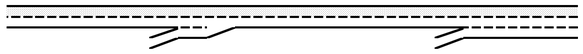


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

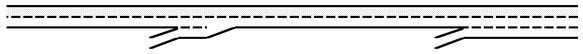


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.33	0.39	0.38	0.29
Segment Density	13.4	14.6	13.8	10.4
Segment LOS	B	B	B	A
Over Capacity				

Daily VMT - 2007 Railyards Specific Plan Trips
Cumulative Year No Project (2007 Railyards Plan)

Daily VMT for 2007 Railyards Specific Plan			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	1,321
2	>5	<=10	3,808
3	>10	<=15	12,297
4	>15	<=20	92,569
5	>20	<=25	68,098
6	>25	<=30	46,722
7	>30	<=35	42,490
8	>35	<=40	43,451
9	>40	<=45	51,198
10	>45	<=50	57,814
11	>50	<=55	89,120
12	>55	<=60	192,924
13	>60	<=65	43,649
14	>65	<=70	8,257
15	>70	<=75	0
16	>75		0
Railyards SP VMT Within SACMET Model Boundary			753,718
Railyards SP VMT Beyond SACMET Model Boundary			60,545
Total Railyards SP VMT			**814,263**
Total Railyards SP Vehicle Trips			112,470
Average Railyards SP VMT Per Trip			6.7

Note:

Includes all vehicle trips generated and attracted to Railyards Specific Plan, including internal vehicle trips that remain within the plan area.

Trip lengths include distances beyond SACMET model boundary

APPENDIX J.1.15:

Cumulative Plus Project Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,523	1,366	89.7%	153.6	25.4	F
	Through	12	10	86.7%	199.4	73.5	F
	Right Turn	285	246	86.2%	135.7	34.7	F
	Subtotal	1,820	1,622	89.1%	151.2	26.5	F
EB	Left Turn						
	Through	282	272	96.6%	40.4	8.8	D
	Right Turn	59	60	102.4%	9.6	14.3	A
	Subtotal	341	333	97.6%	34.7	9.3	C
WB	Left Turn	472	400	84.8%	13.5	2.6	B
	Through	158	152	96.2%	7.8	2.5	A
	Right Turn						
	Subtotal	630	552	87.7%	11.9	2.2	B
Total		2,791	2,508	89.8%	105.0	16.7	F

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	63	66	104.8%	97.7	39.4	F
	Through	8	5	65.0%	119.8	94.2	F
	Right Turn	1,145	1,056	92.2%	137.3	40.2	F
	Subtotal	1,216	1,127	92.7%	135.0	40.2	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	135	99	73.5%	14.6	2.6	B
	Through	1,670	1,486	89.0%	33.3	6.6	C
	Right Turn						
	Subtotal	1,805	1,585	87.8%	32.1	6.1	C
WB	Left Turn						
	Through	567	483	85.2%	26.5	1.2	C
	Right Turn	556	513	92.2%	13.2	1.5	B
	Subtotal	1,123	996	88.7%	19.7	1.0	B
Total		4,144	3,708	89.5%	59.5	11.8	E

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	125	116	93.1%	40.1	9.9	D
	Through	55	48	88.0%	37.3	10.8	D
	Right Turn	19	18	94.7%	10.0	6.6	B
	Subtotal	199	183	91.9%	36.3	8.7	D
SB	Left Turn	38	32	83.2%	37.9	8.2	D
	Through	20	14	70.0%	41.8	23.2	D
	Right Turn	27	31	114.1%	5.8	1.7	A
	Subtotal	85	76	89.9%	26.0	5.3	C
EB	Left Turn	356	313	87.9%	35.5	4.1	D
	Through	1,760	1,507	85.6%	31.5	2.8	C
	Right Turn	699	742	106.2%	6.5	0.8	A
	Subtotal	2,815	2,562	91.0%	24.7	2.0	C
WB	Left Turn	114	95	83.5%	48.9	13.4	D
	Through	971	890	91.6%	39.8	11.2	D
	Right Turn	36	32	87.8%	34.1	13.1	C
	Subtotal	1,121	1,016	90.7%	40.5	11.3	D
Total		4,220	3,838	90.9%	29.5	3.9	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	36	93.7%	34.3	11.4	C
	Through	50	30	60.8%	34.8	13.5	C
	Right Turn	14	14	97.1%	12.9	7.8	B
	Subtotal	102	80	78.0%	29.5	4.5	C
SB	Left Turn	5	4	80.0%	12.4	18.7	B
	Through	6	33	546.7%	32.3	7.5	C
	Right Turn	197	194	98.5%	11.0	2.7	B
	Subtotal	208	231	111.0%	14.0	2.3	B
EB	Left Turn	140	117	83.7%	45.9	3.2	D
	Through	1,397	1,133	81.1%	21.7	4.8	C
	Right Turn	280	262	93.4%	22.2	4.4	C
	Subtotal	1,817	1,512	83.2%	23.7	4.3	C
WB	Left Turn	21	19	89.5%	33.5	8.3	C
	Through	886	782	88.2%	16.4	3.5	B
	Right Turn	78	79	101.0%	14.0	4.2	B
	Subtotal	985	879	89.3%	16.6	3.4	B
Total		3,112	2,701	86.8%	20.8	3.1	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	249	282	113.3%	30.3	2.5	C
	Through	208	256	123.1%	27.4	3.2	C
	Right Turn	10	22	220.0%	21.3	6.8	C
	Subtotal	467	560	119.9%	28.7	2.0	C
SB	Left Turn	110	83	75.3%	237.3	34.1	F
	Through	481	313	65.1%	236.1	37.2	F
	Right Turn	38	20	53.7%	244.5	74.6	F
	Subtotal	629	416	66.2%	236.5	36.3	F
EB	Left Turn	86	67	78.1%	50.8	6.9	D
	Through	1,218	961	78.9%	34.5	4.7	C
	Right Turn	75	69	91.7%	30.8	5.8	C
	Subtotal	1,379	1,097	79.5%	35.3	4.4	D
WB	Left Turn	30	27	89.3%	41.3	11.7	D
	Through	803	675	84.0%	36.2	12.6	D
	Right Turn	153	144	94.4%	39.6	14.9	D
	Subtotal	986	846	85.8%	36.9	12.6	D
Total		3,461	2,919	84.3%	63.2	5.8	E

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	18	83.8%	28.0	12.1	C
	Through	120	96	79.7%	28.3	4.7	C
	Right Turn	71	111	156.1%	11.6	2.4	B
	Subtotal	212	224	105.7%	20.1	2.3	C
SB	Left Turn	44	34	78.2%	25.4	7.0	C
	Through	143	158	110.5%	27.5	3.9	C
	Right Turn	75	74	98.7%	12.2	3.9	B
	Subtotal	262	266	101.7%	23.1	2.9	C
EB	Left Turn	25	17	68.8%	47.9	9.6	D
	Through	1,290	1,033	80.1%	26.3	1.0	C
	Right Turn	23	24	104.3%	29.3	4.6	C
	Subtotal	1,338	1,074	80.3%	26.7	1.1	C
WB	Left Turn	143	134	94.0%	43.5	8.6	D
	Through	890	780	87.6%	13.5	2.4	B
	Right Turn	55	49	89.5%	12.7	4.1	B
	Subtotal	1,088	963	88.5%	17.8	2.5	B
Total		2,900	2,528	87.2%	22.4	1.2	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	115	116.0%	47.2	4.8	D
	Through	200	211	105.6%	38.5	6.0	D
	Right Turn	5	5	104.0%	19.7	20.5	B
	Subtotal	304	331	108.9%	41.3	4.9	D
SB	Left Turn	13	28	215.4%	48.6	19.9	D
	Through	183	200	109.5%	43.4	8.8	D
	Right Turn	20	18	90.0%	39.8	15.5	D
	Subtotal	216	246	114.1%	44.1	7.3	D
EB	Left Turn	147	119	80.8%	69.8	16.3	E
	Through	1,106	804	72.7%	58.8	13.1	E
	Right Turn	152	138	90.5%	59.2	13.6	E
	Subtotal	1,405	1,061	75.5%	60.2	12.9	E
WB	Left Turn	245	312	127.3%	96.8	22.9	F
	Through	971	864	89.0%	44.2	9.5	D
	Right Turn	51	44	87.1%	41.0	12.4	D
	Subtotal	1,267	1,221	96.4%	57.8	13.0	E
Total		3,192	2,859	89.6%	55.7	7.9	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	24.0	24.1	C
	Through	63	34	54.6%	26.8	7.6	C
	Right Turn	267	286	107.1%	10.3	1.2	B
	Subtotal	335	326	97.3%	12.5	1.6	B
SB	Left Turn	165	162	98.2%	32.9	2.7	C
	Through	20	13	66.0%	22.5	16.4	C
	Right Turn	38	30	80.0%	10.4	4.7	B
	Subtotal	223	206	92.2%	29.0	3.0	C
EB	Left Turn	122	88	71.8%	42.1	6.6	D
	Through	910	647	71.1%	23.1	3.1	C
	Right Turn	10	9	88.0%	8.4	5.6	A
	Subtotal	1,042	743	71.3%	25.3	2.7	C
WB	Left Turn	298	235	78.8%	46.8	11.2	D
	Through	1,379	1,378	100.0%	31.4	10.1	C
	Right Turn	82	99	121.0%	31.5	13.6	C
	Subtotal	1,759	1,712	97.4%	33.6	10.3	C
Total		3,359	2,987	88.9%	28.8	6.3	C

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	40	29	73.0%	35.5	8.7	D
	Through	15	5	32.0%	30.9	18.5	C
	Right Turn	22	23	105.5%	18.5	13.5	B
	Subtotal	77	57	74.3%	28.3	7.9	C
SB	Left Turn	41	49	120.0%	34.1	6.1	C
	Through	5	4	72.0%	20.7	21.7	C
	Right Turn	63	77	121.9%	21.8	5.2	C
	Subtotal	109	130	118.9%	26.7	3.0	C
EB	Left Turn	46	50	108.7%	35.8	5.2	D
	Through	1,258	1,010	80.3%	16.0	2.2	B
	Right Turn	38	27	70.5%	15.0	6.4	B
	Subtotal	1,342	1,086	81.0%	16.9	1.9	B
WB	Left Turn	79	61	77.5%	45.9	12.8	D
	Through	1,656	1,644	99.3%	25.3	9.2	C
	Right Turn	5	25	496.0%	21.6	8.9	C
	Subtotal	1,740	1,730	99.4%	26.0	9.2	C
Total		3,268	3,003	91.9%	22.8	5.5	C

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	92	81	88.3%	9.6	1.3	A
	Right Turn	109	81	74.5%	6.6	1.5	A
	Subtotal	201	162	80.8%	8.1	1.1	A
SB	Left Turn	320	267	83.5%	7.7	0.5	A
	Through	428	525	122.7%	7.7	0.5	A
	Right Turn						
	Subtotal	748	792	105.9%	7.7	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	21	41	194.3%	27.0	10.9	D
	Through						
	Right Turn	49	43	87.3%	11.1	9.2	B
	Subtotal	70	84	119.4%	18.5	9.6	C
Total		1,019	1,038	101.9%	8.5	0.6	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	75	131.2%	10.9	2.6	B
	Through	338	460	136.1%	18.0	4.6	C
	Right Turn	8	16	195.0%	13.3	5.9	B
	Subtotal	403	550	136.6%	17.0	4.3	C
SB	Left Turn	79	102	129.1%	11.5	1.1	B
	Through	482	315	65.4%	17.3	1.6	C
	Right Turn	25	6	22.4%	11.0	7.9	B
	Subtotal	586	423	72.2%	15.9	1.3	C
EB	Left Turn	13	10	73.8%	8.9	5.0	A
	Through	101	110	109.3%	11.8	0.7	B
	Right Turn	355	332	93.4%	10.1	2.0	B
	Subtotal	469	452	96.3%	10.5	1.3	B
WB	Left Turn	2	0	20.0%	1.4	4.3	A
	Through	23	16	71.3%	8.6	1.3	A
	Right Turn	116	77	66.2%	4.4	0.4	A
	Subtotal	141	94	66.4%	5.2	0.3	A
Total		1,599	1,518	95.0%	14.1	1.3	B

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	6	85.7%	37.2	20.5	D
	Through	360	270	74.9%	34.1	3.4	C
	Right Turn	74	71	95.7%	26.0	4.4	C
	Subtotal	441	346	78.5%	32.5	3.5	C
SB	Left Turn	614	553	90.1%	86.4	24.3	F
	Through	554	554	100.1%	13.2	4.8	B
	Right Turn	29	26	88.3%	13.0	11.5	B
	Subtotal	1,197	1,133	94.7%	49.2	12.7	D
EB	Left Turn	3	2	53.3%	26.5	48.8	C
	Through	3	2	80.0%	13.9	19.4	B
	Right Turn	4	7	170.0%	4.0	4.6	A
	Subtotal	10	11	108.0%	28.1	43.8	C
WB	Left Turn	53	45	85.3%	44.2	15.5	D
	Through	13	12	92.3%	38.7	18.9	D
	Right Turn	552	527	95.4%	22.7	5.9	C
	Subtotal	618	584	94.5%	24.6	6.1	C
Total		2,266	2,074	91.5%	39.3	8.0	D

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	209	198	94.5%	14.8	2.7	B
	Through	176	174	99.1%	10.1	0.8	B
	Right Turn	2	1	40.0%	1.5	1.3	A
	Subtotal	387	373	96.3%	12.6	1.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	72	70	97.8%	23.2	3.7	C
	Through	517	450	87.1%	23.1	2.4	C
	Right Turn						
	Subtotal	589	521	88.4%	23.1	2.5	C
WB	Left Turn						
	Through	438	430	98.3%	22.5	9.2	C
	Right Turn	13	16	126.2%	16.1	8.9	C
	Subtotal	451	447	99.1%	22.3	9.0	C
Total		1,427	1,340	93.9%	20.1	3.3	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	13.3	20.0	B
	Through	304	213	70.1%	12.8	4.8	B
	Right Turn						
	Subtotal	309	216	69.9%	13.0	4.8	B
SB	Left Turn						
	Through	577	567	98.3%	17.0	2.4	B
	Right Turn	5	4	88.0%	7.4	6.7	A
	Subtotal	582	572	98.2%	17.0	2.4	B
EB	Left Turn	249	199	79.8%	47.8	17.5	D
	Through						
	Right Turn	340	282	82.9%	9.1	1.5	A
	Subtotal	589	481	81.6%	25.3	8.7	C
WB	Left Turn	5	4	88.0%	19.5	12.4	B
	Through	600	563	93.8%	21.2	6.4	C
	Right Turn	95	90	94.7%	13.6	5.0	B
	Subtotal	700	657	93.9%	20.2	6.3	C
Total		2,180	1,926	88.3%	19.8	3.3	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	12	89.2%	98.1	21.8	F
	Through	829	619	74.6%	56.8	5.9	E
	Right Turn	191	133	69.7%	40.1	6.6	D
	Subtotal	1,033	764	73.9%	54.6	5.7	D
SB	Left Turn	130	119	91.7%	58.3	13.9	E
	Through	494	451	91.3%	27.0	7.9	C
	Right Turn	15	12	82.7%	16.7	11.5	B
	Subtotal	639	583	91.2%	33.1	7.5	C
EB	Left Turn	5	4	88.0%	13.3	16.5	B
	Through	39	37	95.4%	26.0	13.2	C
	Right Turn	5	5	96.0%	14.0	16.7	B
	Subtotal	49	46	94.7%	26.2	11.2	C
WB	Left Turn	190	187	98.3%	44.5	13.5	D
	Through	5	5	104.0%	24.8	21.9	C
	Right Turn	28	29	102.9%	34.4	12.6	C
	Subtotal	223	221	99.0%	43.0	12.4	D
Total		1,944	1,614	83.0%	44.3	4.6	D

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	1	24.0%	7.8	13.5	A
	Through	428	286	66.7%	24.1	2.8	C
	Right Turn	369	258	69.9%	13.5	8.7	B
	Subtotal	802	545	67.9%	19.1	3.8	B
SB	Left Turn	30	35	116.0%	46.0	9.5	D
	Through	421	412	97.9%	25.4	4.5	C
	Right Turn	5	1	24.0%	9.5	9.2	A
	Subtotal	456	448	98.2%	27.1	3.9	C
EB	Left Turn	114	90	78.9%	18.9	16.0	B
	Through	207	163	78.6%	15.8	15.0	B
	Right Turn	39	32	83.1%	21.7	33.1	C
	Subtotal	360	285	79.2%	17.2	16.4	B
WB	Left Turn	5	3	56.0%	7.0	8.6	A
	Through	213	213	99.9%	7.1	2.1	A
	Right Turn	18	18	97.8%	6.3	7.3	A
	Subtotal	236	233	98.8%	7.1	2.5	A
Total		1,854	1,511	81.5%	19.2	4.1	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	381	349	91.5%	20.0	4.5	B
	Through	435	399	91.8%	13.7	2.8	B
	Right Turn	11	9	80.0%	9.5	6.8	A
	Subtotal	827	757	91.5%	16.6	3.5	B
EB	Left Turn	304	216	71.2%	36.6	14.3	D
	Through	232	171	73.6%	38.5	14.8	D
	Right Turn	70	56	80.6%	36.9	16.8	D
	Subtotal	606	444	73.2%	37.4	14.6	D
WB	Left Turn	19	18	92.6%	26.1	3.9	C
	Through	225	226	100.6%	21.7	1.7	C
	Right Turn	5	4	72.0%	11.0	4.9	B
	Subtotal	249	248	99.4%	22.0	1.7	C
Total		1,682	1,448	86.1%	23.8	6.0	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	12	72.5%	8.0	5.7	A
	Through	716	724	101.1%	14.2	3.2	B
	Right Turn	284	277	97.5%	19.8	7.4	B
	Subtotal	1,016	1,012	99.6%	15.7	4.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	326	268	82.2%	30.7	6.2	C
	Through	182	153	84.0%	30.0	6.8	C
	Right Turn						
	Subtotal	508	421	82.8%	30.4	6.4	C
WB	Left Turn						
	Through	233	241	103.3%	10.6	1.7	B
	Right Turn	56	53	94.3%	7.9	3.0	A
	Subtotal	289	294	101.6%	10.1	1.5	B
Total		1,813	1,726	95.2%	18.4	3.1	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	377	298	79.0%	29.9	5.3	C
	Through	1,034	769	74.4%	72.6	16.6	E
	Right Turn						
	Subtotal	1,411	1,067	75.6%	60.8	12.9	E
SB	Left Turn						
	Through						
	Right Turn	654	614	93.9%	17.2	3.1	B
	Subtotal	654	614	93.9%	17.2	3.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	909	627	69.0%	114.7	44.5	F
	Right Turn	72	55	76.1%	156.9	64.7	F
	Subtotal	981	682	69.5%	118.1	45.7	F
Total		3,046	2,363	77.6%	63.8	11.6	E

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	206	120	58.3%	106.8	29.4	F
	Through	730	490	67.1%	71.7	20.8	E
	Right Turn						
	Subtotal	936	610	65.2%	78.5	21.6	E
SB	Left Turn						
	Through	407	389	95.5%	17.5	2.6	B
	Right Turn	58	56	97.2%	22.8	16.4	C
	Subtotal	465	445	95.7%	18.1	4.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	59	97.0%	64.5	38.5	E
	Through	717	604	84.2%	79.8	32.6	E
	Right Turn	72	66	91.1%	79.9	38.6	E
	Subtotal	850	728	85.7%	78.3	32.9	E
Total		2,251	1,784	79.2%	61.9	15.9	E

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	482	427	88.6%	8.9	1.1	A
	Right Turn	42	42	99.0%	17.4	24.5	B
	Subtotal	524	469	89.5%	9.7	2.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	392	366	93.3%	21.9	15.8	C
	Through	808	738	91.3%	28.1	23.4	C
	Right Turn						
	Subtotal	1,200	1,104	92.0%	26.0	20.6	C
Total		1,724	1,572	91.2%	20.7	14.0	C

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	252	247	97.9%	15.8	14.4	B
	Through	866	880	101.6%	14.5	5.0	B
	Right Turn						
	Subtotal	1,118	1,127	100.8%	14.7	4.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	948	928	97.9%	19.2	17.9	B
	Right Turn	150	138	91.7%	22.6	30.4	C
	Subtotal	1,098	1,066	97.0%	19.5	18.9	B
Total		2,216	2,192	98.9%	16.9	10.4	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	3	56.0%	76.0	66.7	E
	Through	1,970	1,425	72.3%	104.2	11.8	F
	Right Turn	227	172	75.8%	73.3	8.9	E
	Subtotal	2,202	1,600	72.7%	101.0	11.2	F
SB	Left Turn	79	70	89.1%	48.4	9.0	D
	Through	109	104	95.8%	50.4	15.9	D
	Right Turn						
	Subtotal	188	175	93.0%	50.0	11.3	D
EB	Left Turn	5	5	104.0%	100.3	43.6	F
	Through	1,220	1,047	85.8%	118.4	30.7	F
	Right Turn	846	690	81.5%	141.8	42.1	F
	Subtotal	2,071	1,742	84.1%	127.8	34.1	F
NB	Left Turn						
	Through						
	Right Turn	59	54	91.5%	104.4	30.1	F
	Subtotal	59	54	91.5%	104.4	30.1	F
Total		4,520	3,571	79.0%	111.7	18.5	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	516	482	93.4%	56.4	20.7	E
	Right Turn	556	530	95.4%	33.8	7.8	C
	Subtotal	1,072	1,012	94.4%	44.8	12.9	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	895	617	69.0%	49.5	26.3	D
	Through	2,309	1,780	77.1%	27.7	7.7	C
	Right Turn	124	109	88.1%	20.0	4.7	B
	Subtotal	3,328	2,507	75.3%	32.5	8.8	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,400	3,519	80.0%	36.0	9.2	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	159	149	93.6%	22.3	5.5	C
	Through	715	632	88.4%	25.0	2.2	C
	Right Turn						
	Subtotal	874	781	89.4%	24.4	2.7	C
EB	Left Turn						
	Through	1,986	1,686	84.9%	8.4	0.7	A
	Right Turn	320	263	82.3%	7.4	0.7	A
	Subtotal	2,306	1,949	84.5%	8.2	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,180	2,730	85.9%	12.9	0.9	B

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	711	531	74.7%	36.9	3.9	D
	Right Turn	151	99	65.7%	29.3	2.9	C
	Subtotal	862	630	73.1%	35.7	3.5	D
SB	Left Turn	221	222	100.3%	50.6	21.9	D
	Through	457	424	92.9%	24.6	21.9	C
	Right Turn						
	Subtotal	678	646	95.3%	33.5	21.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	182	164	90.1%	34.2	9.6	C
	Through						
	Right Turn	91	88	96.3%	14.4	5.2	B
	Subtotal	273	252	92.2%	27.7	8.6	C
Total		1,813	1,528	84.3%	33.7	10.5	C

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	29	17	57.9%	16.5	9.3	B
	Through	271	185	68.2%	11.8	2.1	B
	Right Turn	219	156	71.4%	8.3	1.5	A
	Subtotal	519	358	69.0%	10.6	1.8	B
SB	Left Turn	153	151	98.6%	41.7	25.9	D
	Through	312	316	101.3%	19.5	12.9	B
	Right Turn	38	35	91.6%	18.4	17.9	B
	Subtotal	503	502	99.7%	26.0	16.9	C
EB	Left Turn	15	11	74.7%	36.5	44.7	D
	Through	217	178	81.8%	9.6	2.0	A
	Right Turn	140	124	88.3%	6.3	1.6	A
	Subtotal	372	312	84.0%	9.0	1.8	A
WB	Left Turn	46	44	96.5%	13.1	5.3	B
	Through	206	202	98.1%	8.4	1.3	A
	Right Turn	358	320	89.3%	5.5	1.3	A
	Subtotal	610	566	92.8%	7.1	1.4	A
Total		2,004	1,738	86.7%	13.5	5.2	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	33.1	35.5	C
	Through	598	602	100.6%	33.5	3.5	C
	Right Turn	160	156	97.8%	11.7	2.2	B
	Subtotal	763	762	99.8%	29.1	2.7	C
SB	Left Turn	192	211	110.0%	42.3	4.5	D
	Through	368	371	100.9%	17.7	4.1	B
	Right Turn	467	464	99.4%	15.4	4.7	B
	Subtotal	1,027	1,047	101.9%	21.7	4.2	C
EB	Left Turn	350	354	101.0%	57.3	8.9	E
	Through	389	380	97.7%	33.6	4.6	C
	Right Turn	5	6	112.0%	12.1	11.6	B
	Subtotal	744	739	99.4%	44.7	6.0	D
WB	Left Turn	55	49	88.7%	57.4	13.5	E
	Through	183	187	102.3%	32.6	7.3	C
	Right Turn	83	80	96.4%	9.7	3.3	A
	Subtotal	321	316	98.4%	30.9	3.8	C
Total		2,855	2,864	100.3%	30.6	3.2	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	3	140.0%	31.8	34.5	C
	Through	301	325	107.9%	37.6	4.8	D
	Right Turn	5	5	104.0%	9.7	13.6	A
	Subtotal	308	333	108.1%	37.5	4.6	D
SB	Left Turn	128	121	94.7%	34.7	4.6	C
	Through	198	195	98.4%	34.7	3.6	C
	Right Turn	62	61	98.1%	16.1	8.6	B
	Subtotal	388	377	97.1%	31.7	3.2	C
EB	Left Turn	292	282	96.4%	62.6	15.1	E
	Through	449	446	99.2%	32.2	4.2	C
	Right Turn	1	0	0.0%	0.0	0.0	A
	Subtotal	742	727	98.0%	44.1	7.8	D
WB	Left Turn	172	156	90.7%	49.4	9.1	D
	Through	256	256	100.0%	32.9	4.3	C
	Right Turn	168	162	96.7%	21.5	3.8	C
	Subtotal	596	574	96.4%	34.2	4.2	C
Total		2,034	2,011	98.9%	37.7	3.9	D

Intersection 17 **12th St/9 St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	150	150	100.0%	10.5	1.5	B
	Through	1,676	1,689	100.8%	8.5	1.0	A
	Right Turn	25	23	92.8%	5.7	2.4	A
	Subtotal	1,851	1,862	100.6%	8.7	1.0	A
EB	Left Turn						
	Through	164	161	98.3%	15.0	1.5	B
	Right Turn	14	11	77.1%	9.7	6.3	A
	Subtotal	178	172	96.6%	14.8	1.4	B
WB	Left Turn	14	13	94.3%	18.2	8.1	B
	Through	62	65	104.5%	13.7	4.1	B
	Right Turn						
	Subtotal	76	78	102.6%	14.6	3.0	B
Total		2,105	2,112	100.4%	9.4	0.9	A

Intersection 20 **12th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	218	213	97.6%	12.5	1.9	B
	Through	1,461	1,471	100.7%	13.0	1.7	B
	Right Turn	25	26	102.4%	11.4	3.2	B
	Subtotal	1,704	1,709	100.3%	12.9	1.7	B
EB	Left Turn						
	Through	36	38	105.6%	12.5	5.1	B
	Right Turn	134	130	97.0%	8.0	1.6	A
	Subtotal	170	168	98.8%	9.0	1.9	A
WB	Left Turn	4	2	60.0%	3.7	7.2	A
	Through	296	306	103.4%	16.8	1.6	B
	Right Turn						
	Subtotal	300	308	102.8%	16.8	1.6	B
Total		2,174	2,186	100.5%	13.1	1.2	B

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	14	56.7%	53.9	26.7	D
	Through	165	140	84.8%	33.0	4.8	C
	Right Turn	326	283	86.7%	25.8	7.4	C
	Subtotal	515	436	84.7%	29.0	6.2	C
SB	Left Turn	218	214	98.0%	87.5	33.4	F
	Through	511	511	100.0%	30.0	5.4	C
	Right Turn	94	95	100.9%	28.8	8.8	C
	Subtotal	823	819	99.5%	45.1	12.1	D
EB	Left Turn	20	18	90.0%	98.0	36.3	F
	Through	273	203	74.3%	85.6	26.4	F
	Right Turn	66	53	80.6%	68.3	25.5	E
	Subtotal	359	274	76.3%	82.7	25.3	F
WB	Left Turn	513	452	88.1%	51.7	8.1	D
	Through	481	443	92.1%	34.9	6.4	C
	Right Turn	143	136	95.1%	33.4	7.2	C
	Subtotal	1,137	1,031	90.7%	42.2	4.2	D
Total		2,834	2,561	90.4%	45.2	6.1	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	18	14	77.8%	34.1	15.5	C
	Through	486	478	98.3%	15.0	1.4	B
	Right Turn	5	8	160.0%	12.9	10.3	B
	Subtotal	509	500	98.2%	15.6	1.5	B
SB	Left Turn						
	Through						
	Right Turn	92	88	95.2%	0.6	0.5	A
	Subtotal	92	88	95.2%	0.6	0.5	A
EB	Left Turn						
	Through	777	621	79.9%	26.0	6.1	C
	Right Turn	345	277	80.3%	36.4	15.8	D
	Subtotal	1,122	898	80.0%	29.3	9.1	C
SW	Left Turn	21	15	70.5%	33.4	7.5	C
	Through	1,845	1,844	99.9%	38.0	8.5	D
	Right Turn	552	518	93.8%	69.7	21.9	E
	Subtotal	2,418	2,376	98.3%	45.0	11.1	D
Total		4,141	3,861	93.2%	36.7	7.9	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	438	448	102.3%	20.9	3.2	C
	Through	1,045	1,090	104.3%	13.2	0.8	B
	Right Turn	23	22	97.4%	2.4	1.0	A
	Subtotal	1,506	1,560	103.6%	15.3	1.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	735	555	75.5%	19.2	2.0	B
	Through	27	22	80.0%	20.0	6.3	B
	Right Turn						
	Subtotal	762	576	75.6%	19.3	2.1	B
WB	Left Turn						
	Through	18	13	73.3%	5.8	4.6	A
	Right Turn	11	8	72.7%	3.3	3.2	A
	Subtotal	29	21	73.1%	5.4	4.2	A
Total		2,297	2,158	93.9%	16.2	1.2	B

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	196	145	73.9%	34.4	5.7	C
	Through	196	159	81.0%	13.6	3.0	B
	Right Turn	16	15	92.5%	15.0	9.3	B
	Subtotal	408	318	78.0%	23.1	3.2	C
SB	Left Turn	40	36	90.0%	48.4	41.7	D
	Through	243	200	82.1%	48.1	32.9	D
	Right Turn	49	45	92.2%	42.8	37.4	D
	Subtotal	332	281	84.6%	47.4	34.2	D
EB	Left Turn	56	55	97.9%	61.7	27.4	E
	Through	436	393	90.2%	46.5	23.5	D
	Right Turn	391	338	86.5%	46.9	27.4	D
	Subtotal	883	786	89.1%	47.9	24.8	D
WB	Left Turn	11	10	94.5%	57.2	23.4	E
	Through	452	385	85.1%	22.8	3.1	C
	Right Turn	12	11	90.0%	11.4	7.0	B
	Subtotal	475	406	85.5%	23.3	3.4	C
Total		2,098	1,792	85.4%	37.4	14.4	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **AM Peak Hour**

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	128	97	75.9%	15.3	2.8	B
	Through						
	Right Turn	63	54	85.1%	13.8	7.3	B
	Subtotal	191	151	79.0%	15.0	3.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	296	236	79.9%	61.8	30.4	E
	Right Turn	196	166	84.5%	61.4	31.8	E
	Subtotal	492	402	81.7%	61.6	30.9	E
WB	Left Turn	252	229	90.8%	34.5	5.0	C
	Through	347	308	88.6%	11.4	2.7	B
	Right Turn						
	Subtotal	599	536	89.5%	21.2	3.4	C
Total		1,282	1,089	85.0%	35.0	12.0	D

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	16.2	27.2	B
	Through						
	Right Turn	265	223	84.2%	10.3	3.0	B
	Subtotal	270	225	83.4%	10.5	3.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	816	690	84.6%	15.0	1.5	B
	Right Turn	1	2	200.0%	1.9	5.2	A
	Subtotal	817	692	84.7%	15.0	1.5	B
WB	Left Turn	68	63	92.4%	53.1	16.0	D
	Through	1,132	1,039	91.8%	28.9	11.2	C
	Right Turn						
	Subtotal	1,200	1,102	91.8%	30.3	11.4	C
Total		2,287	2,020	88.3%	22.9	6.2	C

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	38.8	33.0	D
	Through	239	188	78.8%	20.7	7.5	C
	Right Turn	93	74	80.0%	14.1	4.8	B
	Subtotal	337	267	79.2%	19.4	6.3	B
SB	Left Turn	35	34	98.3%	34.4	7.0	C
	Through	18	19	104.4%	13.0	6.8	B
	Right Turn	183	174	95.3%	13.2	3.7	B
	Subtotal	236	228	96.4%	16.6	2.9	B
EB	Left Turn	54	48	88.1%	43.5	9.1	D
	Through	994	823	82.8%	22.3	3.4	C
	Right Turn	5	3	64.0%	12.5	14.7	B
	Subtotal	1,053	874	83.0%	23.6	3.4	C
WB	Left Turn	68	66	97.1%	37.3	6.0	D
	Through	1,047	990	94.6%	24.5	6.7	C
	Right Turn	10	7	68.0%	20.4	22.0	C
	Subtotal	1,125	1,063	94.5%	25.3	6.2	C
Total		2,751	2,431	88.4%	23.3	3.1	C

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	390	251	64.4%	14.5	3.2	B
	Right Turn	272	177	65.1%	11.8	2.6	B
	Subtotal	662	428	64.7%	13.4	2.8	B
SB	Left Turn	227	213	93.9%	25.7	4.6	D
	Through	483	459	95.1%	7.4	1.7	A
	Right Turn						
	Subtotal	710	672	94.7%	13.2	2.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	56	56	99.3%	23.4	3.2	C
	Through						
	Right Turn	24	20	81.7%	9.9	1.8	A
	Subtotal	80	75	94.0%	19.9	2.6	C
Total		1,452	1,176	81.0%	13.7	2.0	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	162	114	70.4%	81.9	42.1	F
	Through	273	215	78.8%	30.7	27.0	C
	Right Turn	8	3	40.0%	16.4	17.7	B
	Subtotal	443	332	75.0%	48.3	31.2	D
SB	Left Turn	22	22	98.2%	113.1	36.3	F
	Through	527	396	75.2%	90.2	37.5	F
	Right Turn	84	55	65.2%	85.1	35.0	F
	Subtotal	633	473	74.7%	90.4	36.6	F
EB	Left Turn	87	68	78.6%	39.3	10.1	D
	Through	92	82	89.1%	42.0	12.9	D
	Right Turn	70	54	77.7%	33.0	14.1	C
	Subtotal	249	205	82.2%	38.9	11.3	D
WB	Left Turn	17	10	58.8%	30.8	16.8	C
	Through	212	185	87.4%	33.4	6.0	C
	Right Turn	20	19	94.0%	25.8	12.8	C
	Subtotal	249	214	85.9%	33.2	6.2	C
Total		1,574	1,224	77.8%	59.6	18.0	E

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	19	94.0%	6.5	2.0	A
	Through	5	3	64.0%	5.8	6.0	A
	Right Turn	23	25	107.8%	3.5	0.8	A
	Subtotal	48	47	97.5%	5.3	1.0	A
SB	Left Turn	15	17	114.7%	5.3	1.3	A
	Through	5	7	136.0%	7.6	6.0	A
	Right Turn	26	20	78.5%	3.5	1.0	A
	Subtotal	46	44	96.5%	4.9	1.0	A
EB	Left Turn	19	12	65.3%	4.8	1.3	A
	Through	78	72	91.8%	2.6	1.2	A
	Right Turn	25	23	92.8%	1.9	0.6	A
	Subtotal	122	107	87.9%	2.6	0.8	A
WB	Left Turn	11	7	65.5%	3.0	2.2	A
	Through	203	179	88.3%	2.2	0.2	A
	Right Turn	15	10	66.7%	1.6	0.9	A
	Subtotal	229	196	85.8%	2.2	0.2	A
Total		445	395	88.7%	3.0	0.3	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	16	86.7%	12.3	5.7	B
	Through	106	74	69.8%	12.9	2.3	B
	Right Turn	10	11	112.0%	5.6	3.1	A
	Subtotal	134	101	75.2%	12.2	2.5	B
SB	Left Turn	10	8	84.0%	10.4	6.5	B
	Through	318	272	85.7%	24.3	8.1	C
	Right Turn	53	49	92.8%	19.6	5.9	C
	Subtotal	381	330	86.6%	23.3	7.4	C
EB	Left Turn	18	19	104.4%	12.1	3.2	B
	Through	79	77	97.2%	13.6	1.8	B
	Right Turn	19	19	98.9%	10.1	2.6	B
	Subtotal	116	114	98.6%	12.9	2.0	B
WB	Left Turn	347	291	83.9%	37.3	11.4	E
	Through	158	131	82.8%	39.1	11.8	E
	Right Turn	58	53	91.0%	37.0	12.2	E
	Subtotal	563	475	84.3%	37.8	11.5	E
Total		1,194	1,020	85.4%	27.8	6.7	D

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	123	85	69.3%	99.6	39.3	F
	Through	503	440	87.4%	11.2	1.1	B
	Right Turn						
	Subtotal	626	525	83.8%	25.6	7.8	C
SB	Left Turn						
	Through	628	572	91.1%	12.5	2.6	B
	Right Turn	440	404	91.9%	16.8	9.9	B
	Subtotal	1,068	977	91.5%	14.4	5.7	B
EB	Left Turn	85	79	93.2%	16.6	3.8	B
	Through						
	Right Turn	14	12	82.9%	8.5	5.3	A
	Subtotal	99	91	91.7%	15.8	3.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,793	1,592	88.8%	18.2	5.4	B

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	730	387	53.0%	227.2	29.9	F
	Through						
	Right Turn	139	74	52.9%	201.1	17.3	F
	Subtotal	869	460	53.0%	223.0	27.2	F
EB	Left Turn						
	Through	1,278	681	53.3%	259.4	29.3	F
	Right Turn						
	Subtotal	1,278	681	53.3%	259.4	29.3	F
WB	Left Turn						
	Through	972	746	76.7%	10.7	2.3	B
	Right Turn	64	48	75.0%	2.9	0.8	A
	Subtotal	1,036	794	76.6%	10.3	2.2	B
Total		3,183	1,935	60.8%	147.6	10.0	F

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	34	81.9%	60.2	19.9	E
	Through	52	54	103.1%	29.5	9.5	C
	Right Turn	8	6	70.0%	9.4	11.3	A
	Subtotal	102	94	91.8%	41.3	9.9	D
SB	Left Turn	55	52	95.3%	43.9	10.3	D
	Through	96	83	86.3%	29.5	6.0	C
	Right Turn	208	202	97.3%	21.3	5.8	C
	Subtotal	359	338	94.0%	26.8	4.8	C
EB	Left Turn	547	280	51.2%	39.6	7.4	D
	Through	836	442	52.8%	33.0	4.6	C
	Right Turn	625	334	53.4%	30.2	4.2	C
	Subtotal	2,008	1,056	52.6%	33.9	3.5	C
WB	Left Turn	4	3	70.0%	30.2	27.5	C
	Through	734	532	72.5%	35.7	8.9	D
	Right Turn	103	78	75.7%	17.5	5.8	B
	Subtotal	841	613	72.9%	33.5	8.3	C
Total		3,310	2,100	63.4%	32.9	4.1	C

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	105	82	77.7%	25.4	12.9	C
	Through	2	2	80.0%	7.9	13.4	A
	Right Turn	17	15	87.1%	20.6	15.8	C
	Subtotal	124	98	79.0%	24.7	12.8	C
SB	Left Turn	69	74	107.2%	28.9	7.4	C
	Through	14	18	125.7%	24.1	13.8	C
	Right Turn	25	30	120.0%	13.3	7.5	B
	Subtotal	108	122	112.6%	24.2	6.0	C
EB	Left Turn	8	5	65.0%	75.6	34.3	E
	Through	802	441	55.0%	50.0	20.7	D
	Right Turn	134	77	57.3%	46.6	20.8	D
	Subtotal	944	523	55.4%	49.9	20.6	D
WB	Left Turn	50	39	78.4%	59.9	9.4	E
	Through	696	520	74.8%	27.0	4.8	C
	Right Turn	190	131	68.8%	17.8	4.2	B
	Subtotal	936	690	73.8%	27.2	4.2	C
Total		2,112	1,433	67.9%	34.9	7.8	C

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	120	104	87.0%	28.1	4.3	C
	Through	10	8	84.0%	27.0	17.6	C
	Right Turn	45	35	77.3%	20.2	11.1	C
	Subtotal	175	148	84.3%	26.3	4.0	C
SB	Left Turn	10	8	84.0%	21.7	16.9	C
	Through	10	8	80.0%	27.0	15.1	C
	Right Turn	10	11	108.0%	4.1	2.2	A
	Subtotal	30	27	90.7%	18.1	5.6	B
EB	Left Turn	10	5	52.0%	51.3	32.0	D
	Through	837	492	58.8%	21.9	9.2	C
	Right Turn	20	12	62.0%	15.5	11.0	B
	Subtotal	867	510	58.8%	22.1	9.2	C
WB	Left Turn	6	4	73.3%	76.9	47.4	E
	Through	835	612	73.2%	51.5	9.4	D
	Right Turn	10	8	80.0%	38.1	23.6	D
	Subtotal	851	624	73.3%	51.7	9.5	D
Total		1,923	1,308	68.0%	36.6	7.1	D

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	49	76.9%	100.5	71.0	F
	Through	274	252	92.0%	38.1	10.4	D
	Right Turn	29	25	85.5%	30.4	14.9	C
	Subtotal	367	326	88.8%	45.9	14.2	D
SB	Left Turn	156	122	78.5%	82.1	30.9	F
	Through	303	208	68.6%	75.0	38.1	E
	Right Turn	155	107	69.2%	67.9	34.5	E
	Subtotal	614	438	71.3%	75.7	35.0	E
EB	Left Turn	127	67	52.6%	40.1	8.8	D
	Through	633	383	60.5%	6.9	1.1	A
	Right Turn	85	56	65.4%	5.3	1.6	A
	Subtotal	845	505	59.8%	11.3	3.1	B
WB	Left Turn	68	45	66.5%	35.7	7.4	D
	Through	664	519	78.1%	19.2	2.4	B
	Right Turn	32	27	83.8%	13.4	7.3	B
	Subtotal	764	591	77.3%	20.4	2.6	C
Total		2,590	1,860	71.8%	34.5	7.9	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus RSPU**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	17	14	80.0%	10.0	10.0	B
	Subtotal	17	14	80.0%	10.0	10.0	B
EB	Left Turn						
	Through	818	527	64.4%	1.1	0.2	A
	Right Turn						
	Subtotal	818	527	64.4%	1.1	0.2	A
WB	Left Turn						
	Through	747	589	78.9%	2.1	0.4	A
	Right Turn	23	20	88.7%	1.2	0.6	A
	Subtotal	770	610	79.2%	2.1	0.4	A
Total		1,605	1,150	71.7%	1.7	0.4	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	7	75.6%	33.8	26.6	C
	Through	33	24	73.9%	31.2	6.9	C
	Right Turn	103	85	82.3%	12.8	1.8	B
	Subtotal	145	116	80.0%	18.8	3.4	B
SB	Left Turn	121	103	85.0%	36.1	4.3	D
	Through	303	252	83.2%	29.0	7.6	C
	Right Turn	266	221	83.2%	22.3	6.8	C
	Subtotal	690	576	83.5%	27.5	6.2	C
EB	Left Turn	36	23	64.4%	31.1	8.1	C
	Through	768	492	64.1%	10.2	1.7	B
	Right Turn	14	11	80.0%	6.4	7.0	A
	Subtotal	818	527	64.4%	11.1	1.9	B
WB	Left Turn	277	217	78.4%	55.5	4.2	E
	Through	495	386	78.1%	16.0	2.7	B
	Right Turn	50	42	83.2%	13.8	6.2	B
	Subtotal	822	645	78.5%	29.3	2.8	C
Total		2,475	1,864	75.3%	22.9	2.0	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	242	165	68.3%	156.1	51.2	F
	Through	393	381	97.0%	30.8	7.7	C
	Right Turn	280	285	101.7%	18.8	3.8	B
	Subtotal	915	831	90.8%	51.9	14.2	D
SB	Left Turn	13	11	86.2%	42.3	15.6	D
	Through	448	409	91.3%	26.5	2.8	C
	Right Turn	181	158	87.1%	32.6	5.7	C
	Subtotal	642	578	90.0%	28.3	2.7	C
EB	Left Turn	229	151	65.9%	36.7	8.5	D
	Through	342	223	65.1%	18.3	4.8	B
	Right Turn	421	296	70.2%	11.7	2.4	B
	Subtotal	992	669	67.5%	19.5	3.3	B
WB	Left Turn	328	286	87.1%	69.9	25.5	E
	Through	399	326	81.6%	46.1	15.8	D
	Right Turn	4	6	150.0%	38.3	27.7	D
	Subtotal	731	617	84.4%	57.3	21.2	E
Total		3,280	2,696	82.2%	39.6	4.2	D

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	4	72.0%	46.2	92.4	E
	Through						
	Right Turn	5	4	88.0%	8.7	8.4	A
	Subtotal	10	8	80.0%	47.3	91.5	E
EB	Left Turn	245	206	84.2%	14.8	5.6	B
	Through	390	312	79.9%	2.9	1.2	A
	Right Turn						
	Subtotal	635	518	81.6%	7.6	2.8	A
WB	Left Turn						
	Through	726	642	88.5%	10.1	11.1	B
	Right Turn	7	7	97.1%	4.9	3.1	A
	Subtotal	733	649	88.6%	10.1	11.1	B
Total		1,378	1,175	85.3%	9.2	6.2	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **AM Peak Hour**

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	91	86	94.5%	10.6	3.3	B
	Subtotal	91	86	94.5%	10.6	3.3	B
EB	Left Turn	327	258	79.0%	28.2	3.0	C
	Through						
	Right Turn						
	Subtotal	327	258	79.0%	28.2	3.0	C
WB	Left Turn						
	Through	642	571	89.0%	19.3	2.0	B
	Right Turn	10	10	104.0%	12.9	10.7	B
	Subtotal	652	582	89.2%	19.2	2.0	B
Total		1,070	926	86.5%	20.9	2.0	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	104.0%	4.9	3.2	A
	Through	50	42	84.8%	10.7	2.0	B
	Right Turn	104	100	95.8%	6.8	1.4	A
	Subtotal	159	147	92.6%	8.0	1.6	A
SB	Left Turn	466	259	55.6%	12.5	2.8	B
	Through	174	106	60.7%	10.4	1.5	B
	Right Turn	85	54	64.0%	7.6	2.7	A
	Subtotal	725	419	57.8%	11.3	2.2	B
EB	Left Turn	30	30	100.0%	8.0	2.5	A
	Through	60	60	100.0%	9.8	1.6	A
	Right Turn	5	7	136.0%	5.6	4.2	A
	Subtotal	95	97	101.9%	9.0	1.4	A
WB	Left Turn	193	166	86.0%	9.7	1.9	A
	Through	58	56	97.2%	11.2	1.2	B
	Right Turn	22	22	101.8%	8.3	3.7	A
	Subtotal	273	245	89.7%	9.8	1.7	A
Total		1,252	908	72.5%	10.2	1.7	B

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	98	63	64.5%	10.5	1.7	B
	Through						
	Right Turn	36	25	68.9%	5.5	1.2	A
	Subtotal	134	88	65.7%	9.1	1.2	A
EB	Left Turn	35	23	66.3%	5.0	1.6	A
	Through	545	363	66.6%	1.8	0.2	A
	Right Turn						
	Subtotal	580	386	66.6%	1.9	0.3	A
WB	Left Turn						
	Through	267	241	90.2%	3.4	0.1	A
	Right Turn	106	99	93.6%	2.8	0.2	A
	Subtotal	373	340	91.2%	3.2	0.1	A
Total		1,087	814	74.9%	3.3	0.3	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	28	26	92.9%	6.9	0.4	A
	Right Turn	43	47	108.8%	3.3	0.4	A
	Subtotal	71	73	102.5%	4.6	0.6	A
SB	Left Turn	12	6	50.0%	4.5	2.4	A
	Through	16	14	87.5%	6.7	1.6	A
	Right Turn	8	6	70.0%	2.8	2.1	A
	Subtotal	36	26	71.1%	5.4	0.7	A
EB	Left Turn	33	22	67.9%	7.9	1.4	A
	Through	388	262	67.6%	8.4	0.4	A
	Right Turn	90	67	74.2%	5.8	0.6	A
	Subtotal	511	352	68.8%	7.9	0.4	A
WB	Left Turn	79	74	94.2%	15.1	1.6	C
	Through	406	370	91.2%	15.0	1.4	C
	Right Turn	114	103	90.5%	12.1	1.7	B
	Subtotal	599	548	91.5%	14.5	1.4	B
Total		1,217	998	82.0%	11.2	0.9	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	234	1800.0%	49.6	8.1	D
	Through	302	266	87.9%	38.8	11.3	D
	Right Turn	135	73	54.2%	35.5	10.9	D
	Subtotal	450	573	127.3%	42.8	9.7	D
SB	Left Turn	115	68	59.5%	48.3	11.2	D
	Through	264	181	68.6%	17.9	2.5	B
	Right Turn	55	37	67.6%	15.1	6.9	B
	Subtotal	434	287	66.1%	24.7	5.0	C
EB	Left Turn	40	30	76.0%	52.9	11.8	D
	Through	238	174	73.3%	22.0	4.3	C
	Right Turn	165	112	67.9%	16.7	3.8	B
	Subtotal	443	317	71.5%	23.0	4.0	C
WB	Left Turn	13	15	113.8%	62.9	18.6	E
	Through	302	285	94.3%	36.5	8.1	D
	Right Turn	135	122	90.7%	32.0	8.0	C
	Subtotal	450	422	93.8%	36.0	8.2	D
Total		1,777	1,598	89.9%	34.0	6.0	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	345	332	96.3%	56.2	13.0	E
	Through	35	34	96.0%	35.3	13.5	D
	Right Turn						
	Subtotal	380	366	96.3%	54.2	13.0	D
SB	Left Turn						
	Through	489	382	78.2%	19.8	4.5	B
	Right Turn	105	86	82.3%	16.5	3.9	B
	Subtotal	594	469	78.9%	19.2	4.3	B
EB	Left Turn	110	82	74.9%	20.1	5.2	C
	Through						
	Right Turn	218	158	72.3%	11.2	2.3	B
	Subtotal	328	240	73.2%	14.3	2.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,302	1,075	82.5%	30.1	5.3	C

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **AM Peak Hour**

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	210	223	106.3%	47.6	10.1	E
	Through	537	522	97.3%	25.1	6.7	D
	Right Turn	55	58	104.7%	21.5	6.4	C
	Subtotal	802	803	100.1%	31.3	7.0	D
SB	Left Turn	28	18	65.7%	39.8	5.5	E
	Through	384	267	69.6%	9.6	1.7	A
	Right Turn	30	23	77.3%	5.5	3.4	A
	Subtotal	442	309	69.9%	11.1	1.9	B
EB	Left Turn	33	30	90.9%	25.6	8.5	D
	Through	5	5	104.0%	16.6	16.3	C
	Right Turn	132	148	112.4%	10.1	2.1	B
	Subtotal	170	184	108.0%	12.9	3.2	B
WB	Left Turn	162	132	81.5%	38.4	8.6	E
	Through	196	154	78.8%	38.3	6.6	E
	Right Turn	26	24	92.3%	31.5	11.1	D
	Subtotal	384	310	80.8%	37.9	6.9	E
Total		1,798	1,606	89.3%	26.7	3.8	D

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	181	180	99.4%	23.8	9.2	C
	Through	463	467	100.8%	16.1	6.7	C
	Right Turn						
	Subtotal	644	647	100.4%	18.2	7.1	C
SB	Left Turn						
	Through	448	341	76.1%	3.1	1.3	A
	Right Turn	232	171	73.8%	2.2	1.6	A
	Subtotal	680	512	75.3%	2.8	1.3	A
EB	Left Turn						
	Through						
	Right Turn	55	53	96.7%	10.1	7.3	B
	Subtotal	55	53	96.7%	10.1	7.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,379	1,212	87.9%	11.4	4.6	B

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	107	110	102.4%	47.4	4.8	D
	Through	189	181	95.7%	34.7	6.6	C
	Right Turn	436	336	77.2%	66.6	31.8	E
	Subtotal	732	627	85.6%	53.8	18.4	D
SB	Left Turn	153	117	76.6%	94.6	30.8	F
	Through	373	365	97.8%	31.5	3.6	C
	Right Turn	9	10	115.6%	13.8	13.2	B
	Subtotal	535	492	92.0%	46.3	9.9	D
EB	Left Turn	9	6	71.1%	58.4	23.2	E
	Through	271	218	80.4%	61.9	26.8	E
	Right Turn	176	148	84.1%	49.9	18.6	D
	Subtotal	456	372	81.7%	57.4	22.1	E
WB	Left Turn	397	272	68.5%	42.0	4.6	D
	Through	189	126	66.5%	19.8	5.8	B
	Right Turn	93	71	76.1%	4.6	1.0	A
	Subtotal	679	468	69.0%	30.2	3.0	C
Total		2,402	1,960	81.6%	46.6	10.6	D

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	21	104.0%	45.6	30.7	D
	Through	9	9	102.2%	40.3	32.2	D
	Right Turn	450	379	84.2%	60.1	30.0	E
	Subtotal	479	409	85.3%	58.8	29.0	E
SB	Left Turn	6	7	113.3%	34.2	26.1	C
	Through	13	18	138.5%	36.1	16.4	D
	Right Turn	14	14	102.9%	8.2	8.7	A
	Subtotal	33	39	118.8%	26.5	9.2	C
EB	Left Turn	9	5	57.8%	113.5	46.7	F
	Through	822	529	64.4%	118.5	22.7	F
	Right Turn	29	21	71.7%	98.3	29.3	F
	Subtotal	860	555	64.6%	118.0	22.4	F
WB	Left Turn	459	332	72.2%	177.9	17.5	F
	Through	645	436	67.7%	144.4	17.9	F
	Right Turn	7	6	80.0%	141.2	20.0	F
	Subtotal	1,111	774	69.6%	158.8	17.8	F
Total		2,483	1,777	71.6%	120.2	18.2	F

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,460	101	27	169	48	163	63	2%	0%
	Through/Right	250	65	18	129	53	134	66	0%	0%
SB	Left Turn	3,387	1,390	245	2,442	390	2,596	366	35%	0%
	Left/Through	3,387	1,345	223	2,107	320	2,260	280	59%	0%
	Right Turn	300	290	37	395	60	325	0	1%	0%
WB	Left Turn	1,261	88	20	157	32	151	32	0%	0%
	Through	261	39	20	92	34	100	36	0%	0%

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	225	100	34	223	61	237	36	0%	0%
	Through	261	226	27	302	30	276	22	21%	9%
NB	Left Turn	300	191	52	411	61	325	1	0%	0%
	Through/Right	3,130	712	181	1,124	287	1,081	198	68%	0%
	Right Turn	3,130	726	203	1,136	288	1,085	208	50%	0%
WB	Through	212	138	13	213	30	197	23	0%	1%
	Through/Right	212	168	17	229	20	216	17	0%	1%
	Right Turn	212	145	18	213	20	203	20	0%	0%

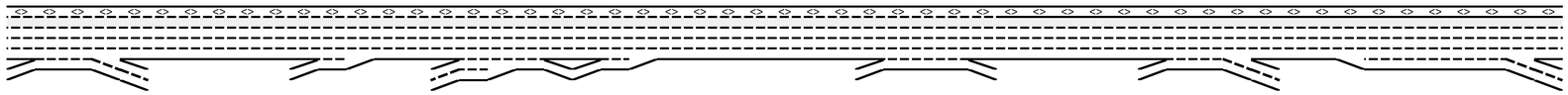
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	1,584	691	237	1,212	340	1,240	290	0%	2%
	Through	1,584	758	250	1,268	346	1,288	299	0%	5%
	Through/Right	589	534	92	654	99	637	40	0%	17%
	Right Turn	589	528	93	644	98	628	47	0%	14%
NB	Right Turn	1,067	18	6	42	19	43	22	0%	0%
NE	Shared	3,001	1,770	312	2,771	395	2,882	262	0%	8%
	Right Turn	3,001	748	307	1,746	388	1,831	274	0%	0%
	Right Turn	3,001	748	307	1,746	388	1,831	274	0%	0%
	Right Turns	330	298	19	380	15	351	12	4%	0%
SB	Left Turn	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

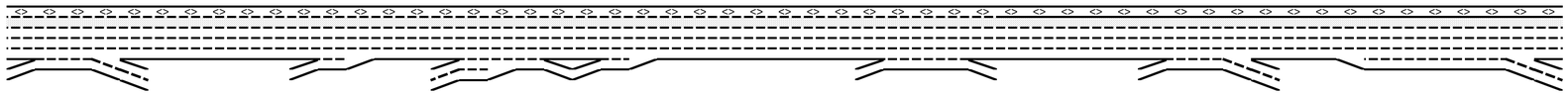
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	1,700	600	740	1,500	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	9,869	8,007	8,007	8,740	8,364	8,644	8,644	8,416	8,416	7,848	7,848
On Ramp Volume	340		733	926	280		676		518		
Off Ramp Volume	2,202			1,302			904		1,086		1,851
Express Lane Volume	1,875	1,521	1,521	1,661	1,589	1,642	1,642	1,599	1,599	1,491	1,491
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	7,994	6,486	6,486	7,079	6,775	7,002	7,002	6,817	6,817	6,357	6,357
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	5	4	4	4	4	4	5	4	5	5	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	8,819	7,155	7,155	7,810	7,474	7,724	7,724	7,520	7,520	7,013	7,013
Flow (pcphpl)	1,764	1,789	1,789	1,952	1,868	1,931	1,545	1,880	1,504	1,403	1,403
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	11,750	9,400	9,400	9,400	9,400	9,400	11,750	9,400	11,750	11,750	11,750
v/c ratio	0.75	0.76	0.76	0.83	0.80	0.82	0.66	0.80	0.64	0.60	0.60
Speed (mph)	63.1	62.9	62.9	60.7	61.9	61.0	64.7	61.7	64.8	65.0	65.0
Density (pcphpl)	27.9	28.5	28.5	32.2	30.2	31.7	23.9	30.5	23.2	21.6	21.6
LOS	D	D	D	D	D	D	C	D	C	C	C
Calculate Operations for Segment GP Lanes											
Flow (pcph)	9,202		7,981	8,779	7,773		8,486		8,104		
Lanes	5	4	4	4	4	4	5	4	5	5	5
Capacity (pcph)	11,750		9,400	9,400	9,400		11,750		11,750		
v/c ratio	0.78		0.85	0.93	0.83		0.72		0.69		
Flow Rate (pcphpl)	1,840		1,995	2,195	1,943		1,697		1,621		
Speed (mph)	62.2		60.0	56.0	60.8		63.7		64.3		
Density (pcphpl)	29.6		33.3	39.2	32.0		26.6		25.2		
LOS	D		D	E	D		D		C		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

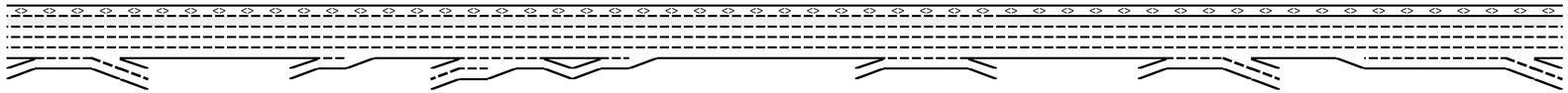
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	6,719			7,310			7,478		6,880		4,945
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.71			0.78			0.80		0.73		0.53
Flow Rate (pcphpl)	1,680			1,828			1,869		1,720		1,236
Speed (mph)	63.9			62.4			61.9		63.5		65.0
Density (pcphpl)	26.3			29.3			30.2		27.1		19.0
LOS	D			D			D		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

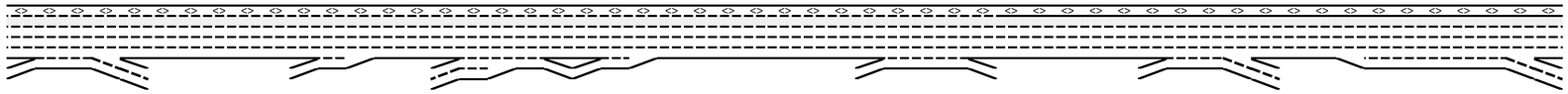
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,875	1,521	1,521	1,661	1,589	1,642	1,642	1,599	1,599	1,491	1,491
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,994	1,617	1,617	1,765	1,690	1,746	1,746	1,700	1,700	1,585	1,585
Flow Rate (pcphpl)	1,994	1,617	1,617	1,765	1,690	1,746	1,746	1,700	1,700	1,585	1,585
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	1.14	0.92	0.92	1.01	0.97	1.00	1.00	0.97	0.97	0.91	0.91
Calculate On Ramp Flow Rate											
Volume (vph)	340		733	926	280		676		518		
PHF	0.9		0.9	0.97	0.95		0.9		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	383		827	969	299		762		584		
Flow Rate (pcphpl)	383		827	484	299		762		584		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.18		0.39	0.23	0.14		0.36		0.28		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

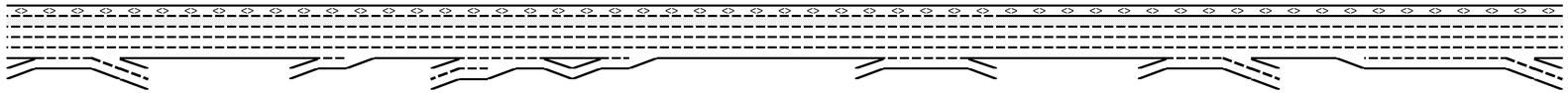
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate											
Volume (vph)	2,202			1,302			904		1,086		1,851
PHF	0.9			0.9			0.91		0.9		0.94
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	2,483			1,468			1,008		1,225		2,068
Flow Rate (pcphpl)	1,242			1,468			1,008		612		1,034
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.59			0.70			0.48		0.29		0.45
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			7,155		7,474						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.114		0.180						
v_{12} (pcph)			819		1,348						
v_3 (pcph)											
v_{34} (pcph)			6,336		6,125						
v_{12a} (pcph)			2,862		2,989						
v_{R12a} (pcph)			3,689		3,289						
Speed Index			0.44		0.37						
Area Speed			54.9		56.4						
Outer Lanes Volume			2,146		2,242						
Outer Lanes Speed			59.1		58.7						
Segment Speed			57.1		57.7						
v/c ratio			0.80		0.71						
Density			31.2		27.3						
LOS			D		C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



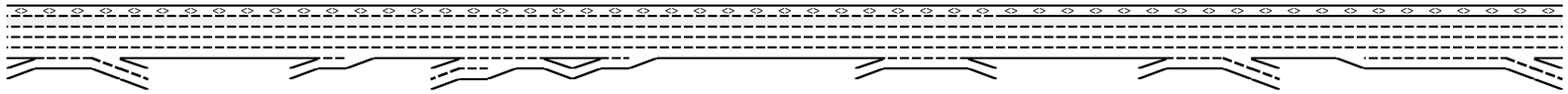
Key
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											24.5
LOS											C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)											
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

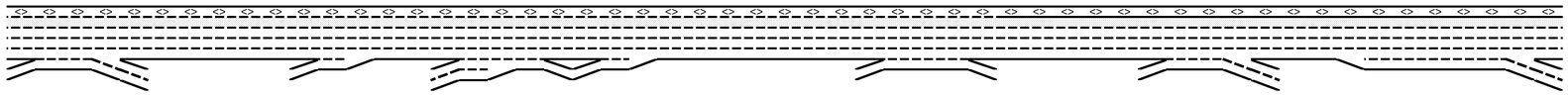
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)											
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	6	7	8	9	10



Key

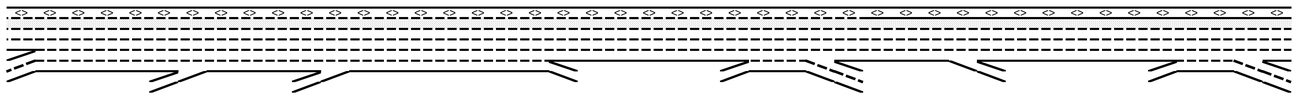
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.76	0.80		0.71	0.82		0.80		0.60	
Segment Density	-	28.5	31.2	-	27.3	31.7		30.5		21.6	24.5
Segment LOS	F	D	D	F	C	D		D		C	C
Over Capacity	Express Lanes			Express Lanes							
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

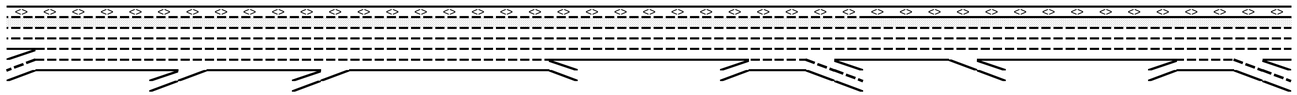
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	6,497	8,673	9,035	9,396	8,619	8,619	7,253	6,563	6,563
On Ramp Volume	2,176	362	361			718			507
Off Ramp Volume				777		2,084	690		2,071
Express Lane Volume	1,040	1,388	1,446	1,503	1,379	1,379	1,160	1,050	1,050
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	5,457	7,285	7,589	7,893	7,240	7,240	6,093	5,513	5,513
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	5	5	5	5	5	5	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,958	7,953	8,285	8,616	7,904	7,904	6,651	6,018	6,018
Flow (pcphpl)	1,192	1,591	1,657	1,723	1,581	1,581	1,663	1,505	1,204
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	11,750	11,750	11,750	11,750	11,750	11,750	9,400	9,400	11,750
v/c ratio	0.51	0.68	0.71	0.73	0.67	0.67	0.71	0.64	0.51
Speed (mph)	65.0	64.5	64.1	63.5	64.5	64.5	64.0	64.8	65.0
Density (pcphpl)	18.3	24.7	25.9	27.1	24.5	24.5	26.0	23.2	18.5
LOS	C	C	C	D	C	C	C	C	C
Calculate Operations for Segment GP Lanes									
Flow (pcph)	8,388	8,348	8,692			8,713			6,543
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.71	0.71	0.74			0.74			0.56
Flow Rate (pcphpl)	1,678	1,670	1,738			1,743			1,309
Speed (mph)	63.9	64.0	63.4			63.3			65.0
Density (pcphpl)	26.3	26.1	27.4			27.5			20.1
LOS	D	D	D			D			C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

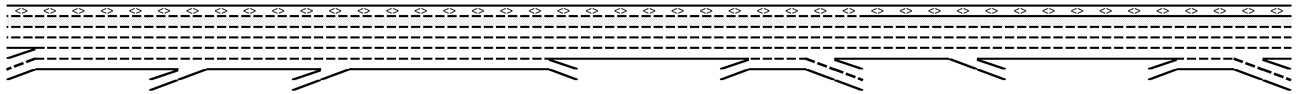
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				7,786		6,389	5,914		4,208
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.83		0.68	0.63		0.45
Flow Rate (pcphpl)				1,946		1,597	1,478		1,052
Speed (mph)				60.8		64.4	64.9		65.0
Density (pcphpl)				32.0		24.8	22.8		16.2
LOS				D		C	C		B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

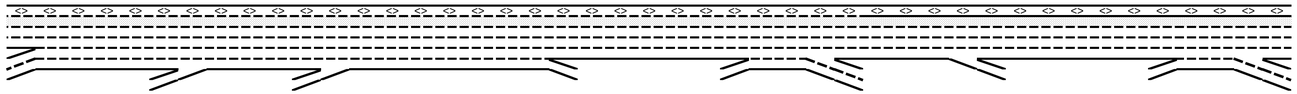
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	1,040	1,388	1,446	1,503	1,379	1,379	1,160	1,050	1,050
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,105	1,475	1,537	1,598	1,466	1,466	1,234	1,116	1,116
Flow Rate (pcphpl)	1,105	1,475	1,537	1,598	1,466	1,466	1,234	1,116	1,116
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.63	0.84	0.88	0.91	0.84	0.84	0.71	0.64	0.64
Calculate On Ramp Flow Rate									
Volume (vph)	2,176	362	361			718			507
PHF	0.94	0.93	0.9			0.9			0.98
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	2,431	395	407			810			525
Flow Rate (pcphpl)	1,215	395	407			810			525
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.53	0.19	0.19			0.39			0.25

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

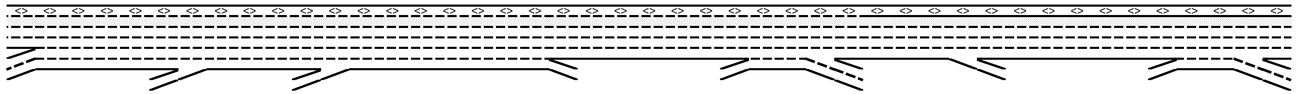
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				777		2,084	690		2,071
PHF				0.95		0.91	0.95		0.9
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				830		2,324	737		2,336
Flow Rate (pcphpl)				830		1,162	737		1,168
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.40		0.55	0.35		0.56
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		5,686	5,924						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.168	0.167						
v_{12} (pcph)		958	989						
v_3 (pcph)									
v_{34} (pcph)		4,729	4,935						
v_{12a} (pcph)		2,275	2,370						
v_{R12a} (pcph)		2,670	2,777						
Speed Index		0.37	0.36						
Area Speed		56.5	56.7						
Outer Lanes Volume		1,706	1,777						
Outer Lanes Speed		60.7	60.4						
Segment Speed		58.8	58.7						
v/c ratio		0.58	0.60						
Density		25.5	25.2						
LOS		C	C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

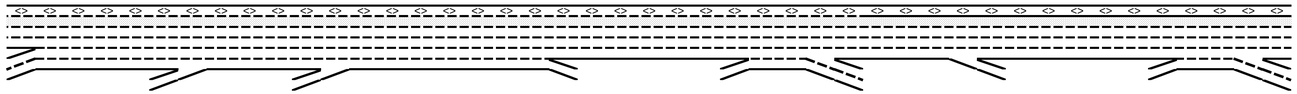
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				6,893			6,651		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.549			0.560		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				3,474			3,316		
v_3 (pcph)									
v_{34} (pcph)				3,419			3,335		
v_{12a} (pcph)				3,474			3,316		
Speed Index				0.37			0.36		
Area Speed				56.4			56.6		
Outer Lanes Volume				1,710			1,668		
Outer Lanes Speed				68.5			68.7		
Segment Speed				61.8			62.1		
v/c ratio				0.79			0.75		
Density				27.4			31.5		
LOS				C			D		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

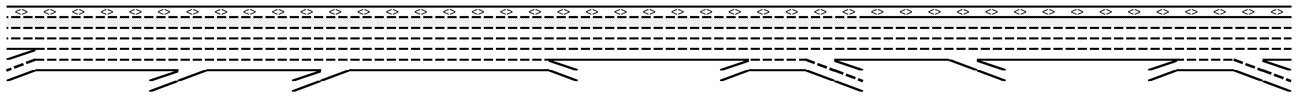
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	8



Key

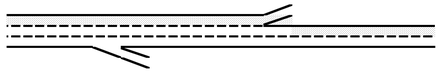
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Rich	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.71	0.58	0.60	0.79	0.67		0.75	0.64	
Segment Density	26.3	25.5	25.2	27.4	24.5		31.5	23.2	
Segment LOS	D	C	C	C	C		D	C	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3

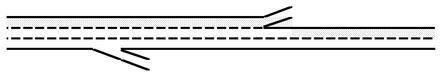


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	3,317	2,570	2,089
On Ramp Volume			
Off Ramp Volume	747	481	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	3,317	2,570	2,089
PHF	0.95	0.95	0.95
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	3,544	2,746	2,232
Flow (pcphpl)	1,181	915	1,116
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.50	0.38	0.46
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	18.2	13.1	15.9
LOS	C	B	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

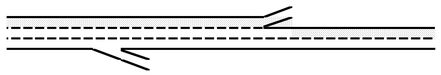


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,746	2,232	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.39	0.46	
Flow Rate (pcphpl)	915	1,116	
Speed (mph)	65.0	70.0	
Density (pcphpl)	14.1	15.9	
LOS	B	B	

Location	1	2	3

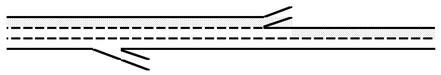


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Location	1	2	3

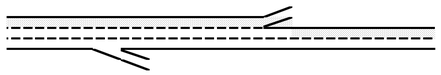


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	747	481	
PHF	0.95	0.95	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	798	514	
Flow Rate (pcphpl)	798	514	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.38	0.26	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		798	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

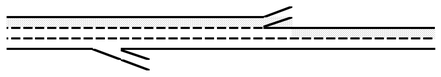


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	3,544		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.635		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.635		
v_{12} (pcph)	2,541		
v_3 (pcph)	1,003		
v_{34} (pcph)			
v_{12a} (pcph)	2,541		
Speed Index	0.37		
Area Speed	56.5		
Outer Lanes Volume	1,003		
Outer Lanes Speed	71.3		
Segment Speed	60.0		
v/c ratio	0.58		
Density	24.8		
LOS	C		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

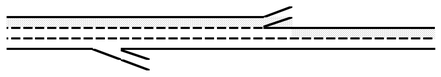


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

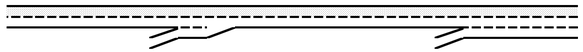
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.58	0.38	0.46
Segment Density	24.8	13.1	15.9
Segment LOS	C	B	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4



Key

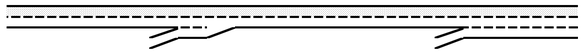
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	3,317	3,317	4,064	4,064
On Ramp Volume		747		481
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	3,317	3,317	4,064	4,064
PHF	0.88	0.88	0.88	0.88
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	3,826	3,826	4,687	4,687
Flow (pcphpl)	1,913	1,913	2,344	1,562
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.85	0.81	1.00	0.66
Speed (mph)	54.7	61.3	52.4	64.6
Density (pcphpl)	35.0	31.2	44.8	24.2
LOS	D	D	E	C
Operations for Segment GP Lanes				
Flow (pcph)		4,687		5,242
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		1.00		0.74
Flow Rate (pcphpl)		2,344		1,747
Speed (mph)		52.4		63.3
Density (pcphpl)		44.8		27.6
LOS		E		D

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4



Key

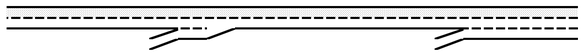
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4



Key

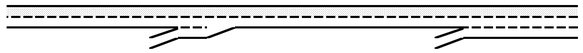
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		747		481
PHF		0.88		0.88
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		862		555
Flow Rate (pcphpl)		862		555
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.41		0.26

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4



Key

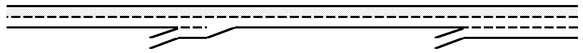
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		3,826		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		3,826		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		3,826		
v_{R12a} (pcph)		4,687		
Speed Index		0.68		
Area Speed		49.4		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		49.4		
v/c ratio		1.02		
Density		36.9		
LOS		F		

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4

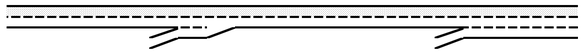


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4



Key

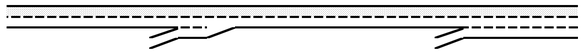
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: AM Peak Hour

Location	1	2	3	4



Key

<> Express Lane (HOV)

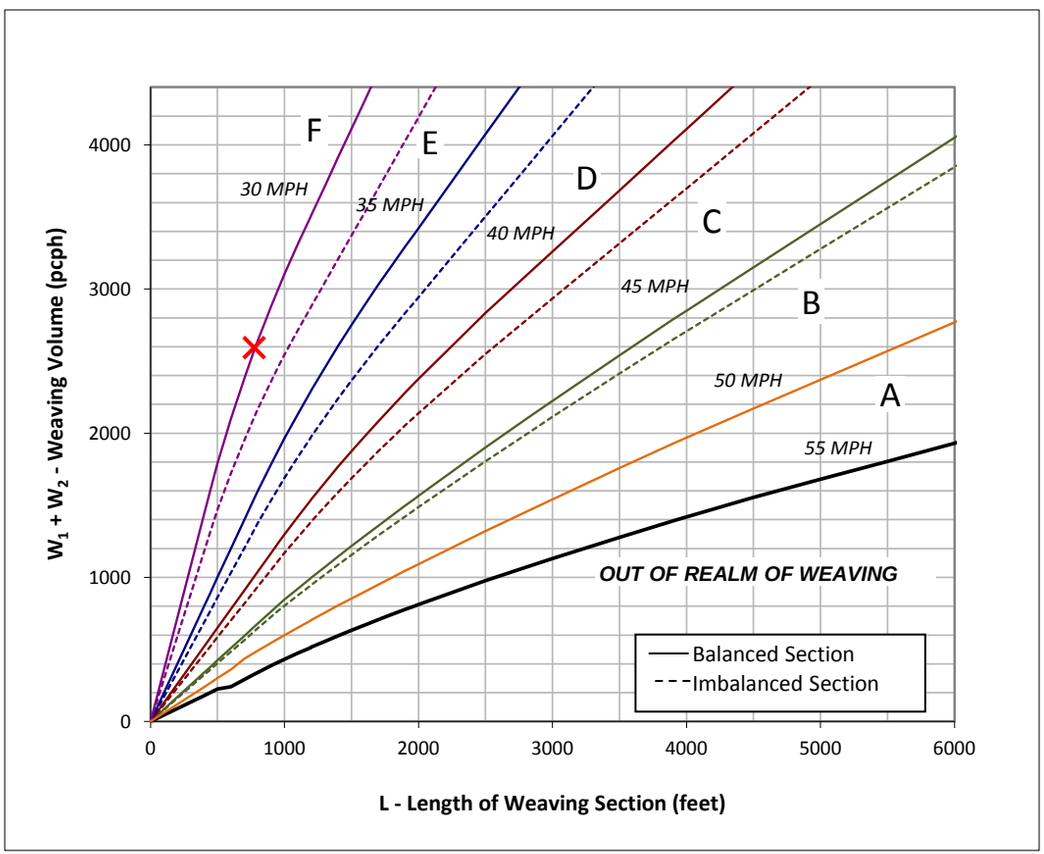
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.85	1.02	1.00	0.74
Segment Density	35.0	-	44.8	27.6
Segment LOS	D	F	E	D
Over Capacity		Merge		

Leisch Method for Weaving Analysis

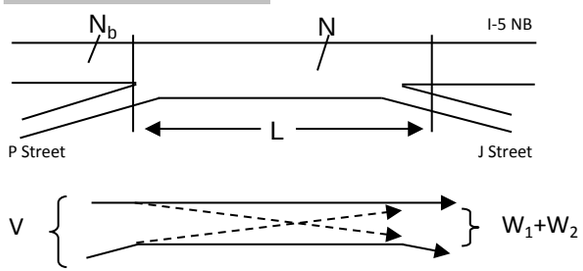
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,334	Volume (vph)*	340	Volume (vph)*	2,202
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,734	Volume (pcph)	347	Volume (pcph)	2,246



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	29.9
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,886
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

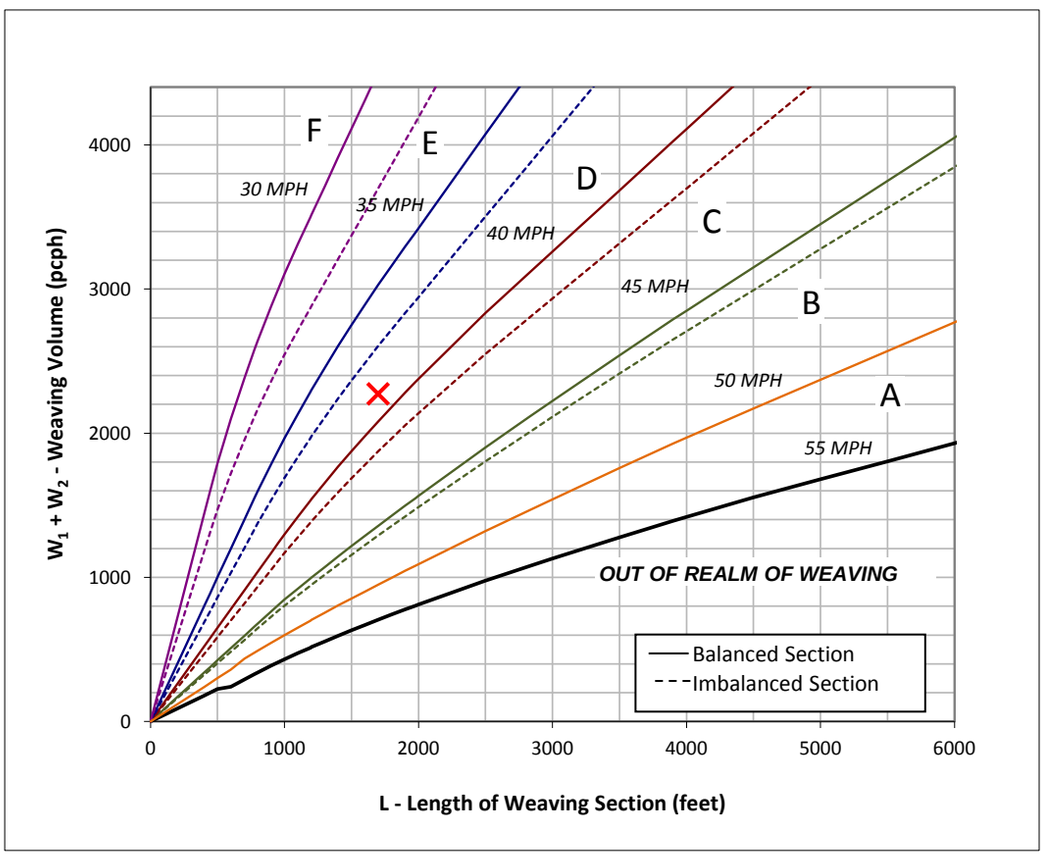
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

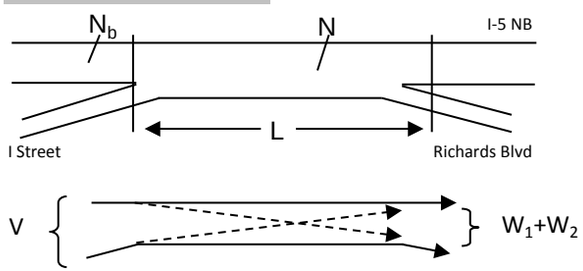
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,700

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,005	Volume (vph)*	926	Volume (vph)*	1,302
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,389	Volume (pcph)	945	Volume (pcph)	1,328



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.3
4. Weaving Intensity Factor (k)	2.68
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,996
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

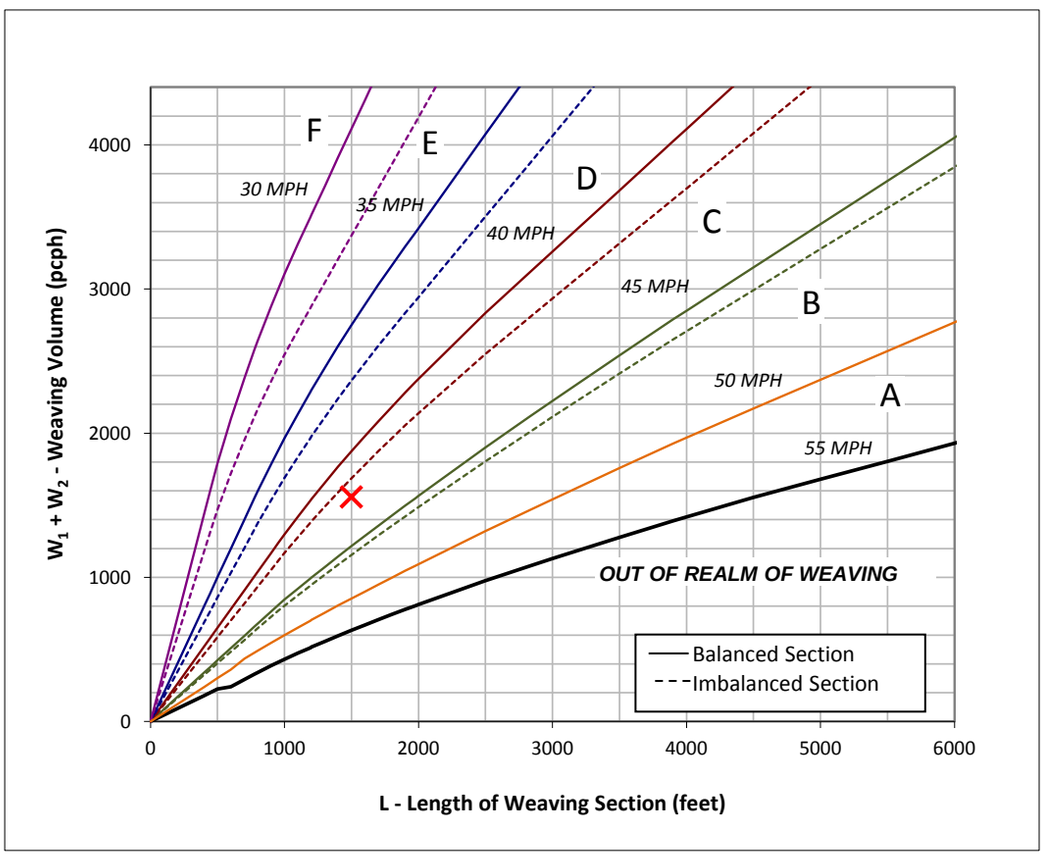
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

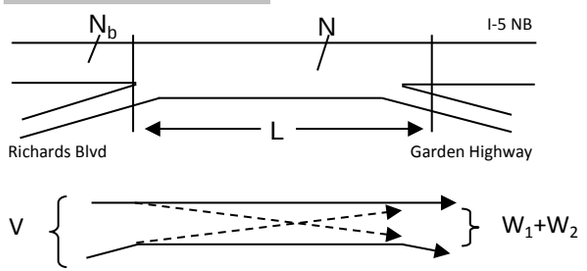
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,500

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,678	Volume (vph)*	642	Volume (vph)*	886
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,047	Volume (pcph)	655	Volume (pcph)	904



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	41.2
4. Weaving Intensity Factor (k)	2.42
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,795
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

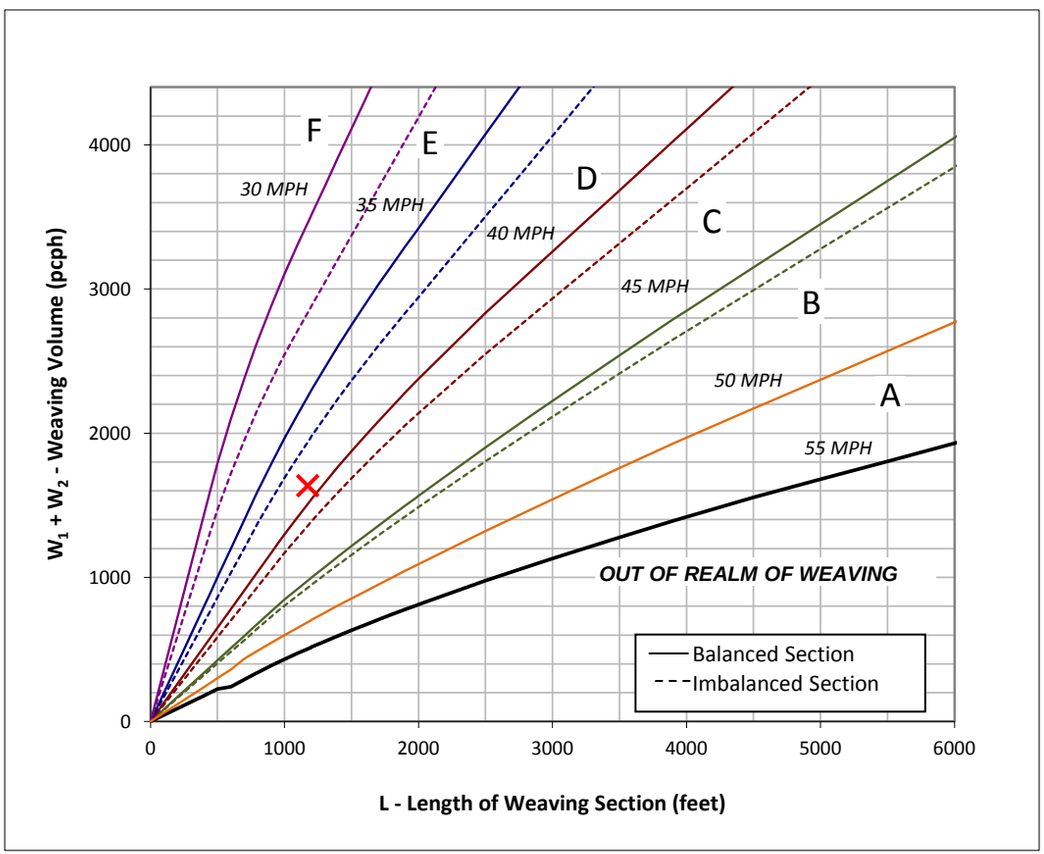
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,335	Volume (vph)*	518	Volume (vph)*	1,086
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,687	Volume (pcph)	528	Volume (pcph)	1,108



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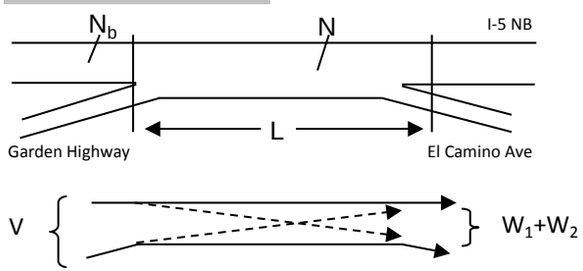


Capacity Analysis

1. Is the weaving section balanced (Y / N)?	Y
If optional exit lane, then "Y". Otherwise "N".	
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	39.2
4. Weaving Intensity Factor (k)	2.57
5. Service Volume (SV, pcph)	
SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,704
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

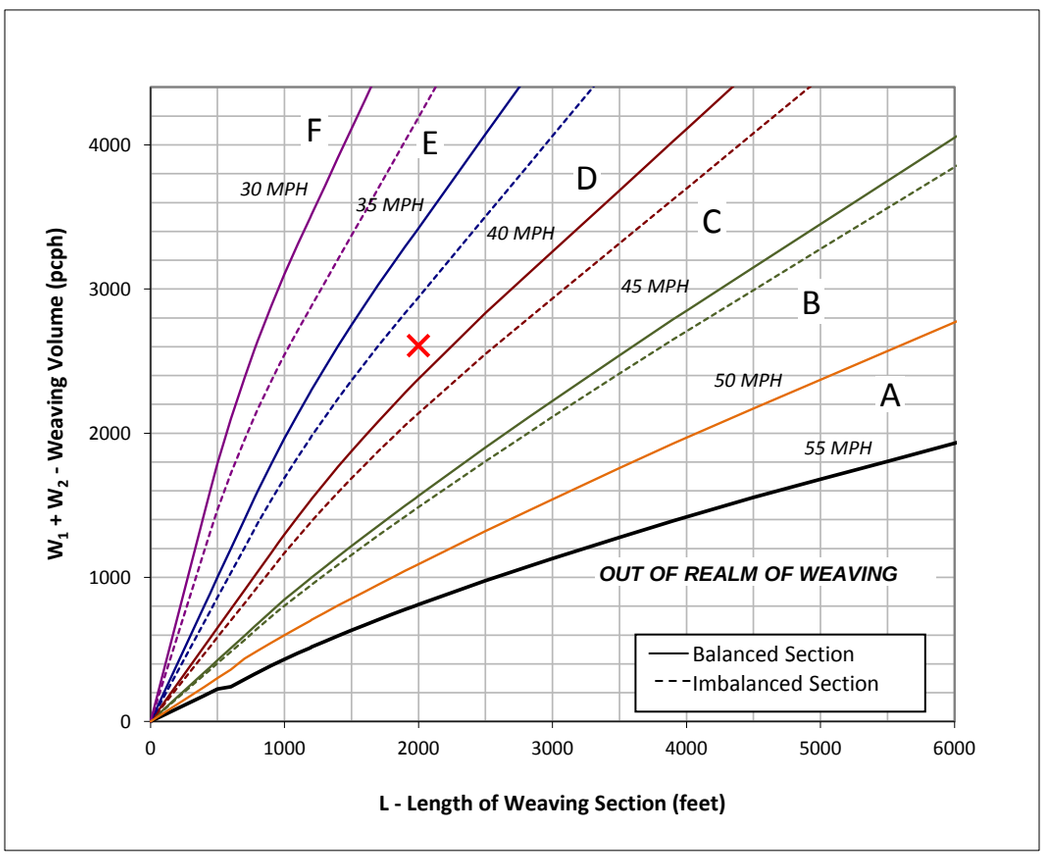
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,953	Volume (vph)*	639	Volume (vph)*	1,917
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,335	Volume (pcph)	652	Volume (pcph)	1,956



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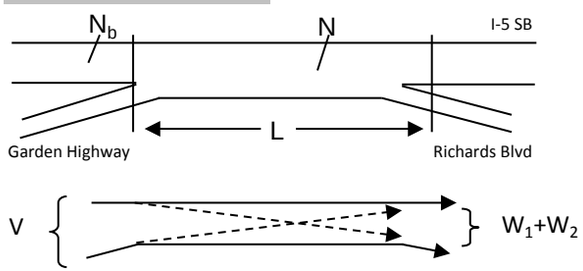


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	38.9
4. Weaving Intensity Factor (k)	2.59
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,874
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

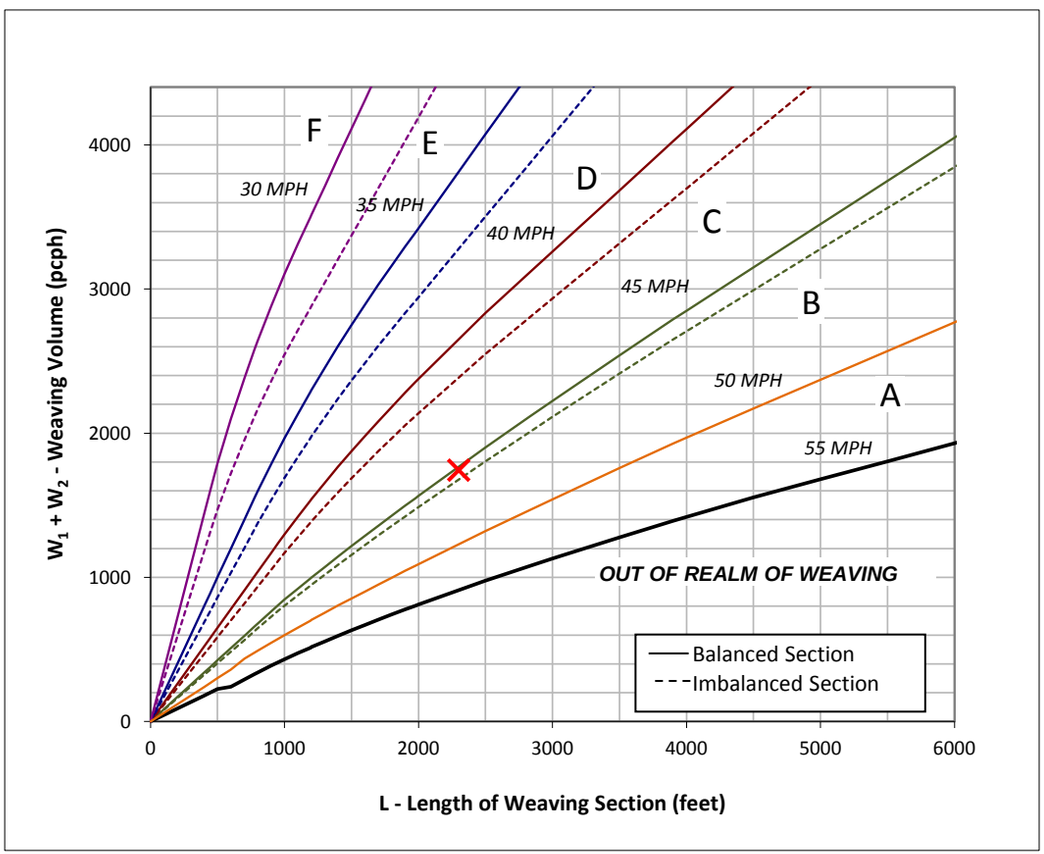
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,020	Volume (vph)*	487	Volume (vph)*	1,222
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,309	Volume (pcph)	496	Volume (pcph)	1,246



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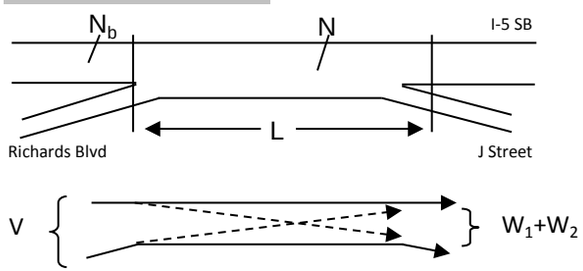


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	45.2
4. Weaving Intensity Factor (k)	1.78
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,340
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	844	832	98.6%	28.2	2.4	C
	Through	69	69	99.7%	28.1	3.1	C
	Right Turn	148	131	88.4%	6.2	0.9	A
	Subtotal	1,061	1,032	97.3%	25.4	2.1	C
EB	Left Turn						
	Through	773	605	78.3%	147.9	22.8	F
	Right Turn	146	124	85.2%	123.4	25.1	F
	Subtotal	919	730	79.4%	143.6	23.1	F
WB	Left Turn	722	559	77.5%	45.8	5.9	D
	Through	289	239	82.6%	9.6	1.4	A
	Right Turn						
	Subtotal	1,011	798	78.9%	35.0	4.6	D
Total		2,991	2,560	85.6%	61.8	5.4	E

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	59	85.8%	31.0	4.5	C
	Through	10	11	112.0%	33.3	13.6	C
	Right Turn	465	463	99.5%	12.7	2.1	B
	Subtotal	544	533	98.0%	15.2	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	665	468	70.3%	25.6	4.5	C
	Through	952	953	100.1%	4.4	1.0	A
	Right Turn						
	Subtotal	1,617	1,420	87.8%	11.3	1.8	B
WB	Left Turn						
	Through	942	767	81.4%	18.7	3.1	B
	Right Turn	1,056	856	81.0%	11.7	1.7	B
	Subtotal	1,998	1,622	81.2%	15.0	2.3	B
Total		4,159	3,576	86.0%	13.6	1.3	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	268	256	95.7%	33.1	6.0	C
	Through	33	27	82.4%	34.8	11.7	C
	Right Turn	62	64	103.2%	8.1	3.0	A
	Subtotal	363	348	95.8%	28.8	4.8	C
SB	Left Turn	45	41	91.6%	32.5	6.8	C
	Through	61	57	93.1%	32.9	6.0	C
	Right Turn	60	56	92.7%	13.6	6.0	B
	Subtotal	166	154	92.5%	25.9	4.2	C
EB	Left Turn	24	22	91.7%	36.1	6.9	D
	Through	1,060	1,077	101.6%	24.8	2.9	C
	Right Turn	333	345	103.5%	4.2	0.7	A
	Subtotal	1,417	1,444	101.9%	20.0	2.3	C
WB	Left Turn	108	77	71.5%	61.2	10.0	E
	Through	1,670	1,311	78.5%	47.8	11.0	D
	Right Turn	20	15	74.0%	42.1	18.0	D
	Subtotal	1,798	1,403	78.0%	48.5	10.9	D
Total		3,744	3,348	89.4%	33.1	4.8	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	178	172	96.6%	38.6	10.9	D
	Through	26	31	120.0%	28.4	8.0	C
	Right Turn	35	34	98.3%	11.8	6.0	B
	Subtotal	239	238	99.4%	33.8	8.4	C
SB	Left Turn	90	97	108.0%	32.2	6.5	C
	Through	9	9	97.8%	33.1	20.3	C
	Right Turn	190	197	103.8%	16.7	3.8	B
	Subtotal	289	303	104.9%	22.4	4.2	C
EB	Left Turn	190	197	103.8%	45.6	2.5	D
	Through	901	902	100.1%	15.4	2.7	B
	Right Turn	76	64	83.7%	14.2	4.4	B
	Subtotal	1,167	1,162	99.6%	20.4	2.7	C
WB	Left Turn	23	20	85.2%	41.9	17.5	D
	Through	1,430	1,034	72.3%	39.9	11.9	D
	Right Turn	21	16	76.2%	42.1	21.2	D
	Subtotal	1,474	1,070	72.6%	40.0	11.9	D
Total		3,169	2,773	87.5%	29.3	5.6	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	312	297	95.1%	34.9	5.7	C
	Through	400	404	100.9%	39.0	9.5	D
	Right Turn	26	26	100.0%	34.3	6.4	C
	Subtotal	738	726	98.4%	37.2	7.8	D
SB	Left Turn	195	132	67.7%	238.5	34.2	F
	Through	447	282	63.1%	248.3	32.0	F
	Right Turn	71	48	67.0%	237.7	38.0	F
	Subtotal	713	462	64.7%	244.6	30.9	F
EB	Left Turn	41	46	111.2%	50.6	9.3	D
	Through	883	858	97.2%	33.4	5.4	C
	Right Turn	217	228	105.3%	34.4	6.4	C
	Subtotal	1,141	1,132	99.2%	34.3	5.6	C
WB	Left Turn	5	3	64.0%	54.3	64.1	D
	Through	1,193	858	71.9%	87.7	21.6	F
	Right Turn	203	151	74.3%	96.2	25.2	F
	Subtotal	1,401	1,012	72.2%	89.1	21.8	F
Total		3,993	3,332	83.4%	80.4	8.2	F

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	20	83.3%	30.1	9.4	C
	Through	153	156	102.0%	30.4	4.5	C
	Right Turn	130	129	99.4%	13.1	1.9	B
	Subtotal	307	305	99.4%	23.2	3.2	C
SB	Left Turn	5	4	80.0%	18.8	24.6	B
	Through	155	151	97.5%	23.3	3.9	C
	Right Turn	104	104	100.0%	20.7	4.7	C
	Subtotal	264	259	98.2%	22.3	3.8	C
EB	Left Turn	91	78	86.2%	37.6	4.8	D
	Through	990	921	93.1%	25.8	2.7	C
	Right Turn	23	25	109.6%	24.5	7.6	C
	Subtotal	1,104	1,025	92.8%	26.8	2.5	C
WB	Left Turn	140	108	76.9%	84.0	29.4	F
	Through	1,273	1,041	81.8%	67.0	31.0	E
	Right Turn	15	12	82.7%	60.1	42.2	E
	Subtotal	1,428	1,161	81.3%	68.5	30.6	E
Total		3,103	2,750	88.6%	43.3	12.8	D

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	286	294	102.8%	56.8	7.6	E
	Through	219	212	96.6%	38.6	4.5	D
	Right Turn	5	4	88.0%	8.2	11.7	A
	Subtotal	510	510	100.0%	48.7	5.2	D
SB	Left Turn	48	46	96.7%	66.1	14.6	E
	Through	239	231	96.6%	47.9	4.7	D
	Right Turn	42	42	99.0%	49.5	14.6	D
	Subtotal	329	319	96.9%	50.7	4.2	D
EB	Left Turn	15	10	64.0%	94.8	28.2	F
	Through	929	750	80.7%	80.8	21.3	F
	Right Turn	181	145	80.2%	85.4	21.8	F
	Subtotal	1,125	905	80.4%	81.7	21.1	F
WB	Left Turn	428	352	82.2%	120.2	40.7	F
	Through	1,102	980	88.9%	50.0	19.3	D
	Right Turn	3	2	80.0%	52.1	40.1	D
	Subtotal	1,533	1,334	87.0%	68.6	24.9	E
Total		3,497	3,068	87.7%	67.0	15.6	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	11.2	17.8	B
	Through	9	9	102.2%	24.5	14.8	C
	Right Turn	262	272	103.7%	8.9	1.6	A
	Subtotal	276	284	102.8%	9.7	1.2	A
SB	Left Turn	274	271	98.8%	32.0	4.3	C
	Through	72	73	101.7%	25.9	2.9	C
	Right Turn	136	126	92.4%	18.8	4.6	B
	Subtotal	482	470	97.4%	27.6	3.2	C
EB	Left Turn	37	29	78.9%	41.4	10.7	D
	Through	865	692	80.0%	27.3	4.1	C
	Right Turn	58	44	76.6%	13.2	3.8	B
	Subtotal	960	766	79.8%	27.0	3.9	C
WB	Left Turn	311	307	98.6%	37.8	4.1	D
	Through	1,336	1,313	98.3%	19.7	4.6	B
	Right Turn	25	30	120.0%	16.6	7.2	B
	Subtotal	1,672	1,650	98.7%	23.1	3.5	C
Total		3,390	3,168	93.5%	23.5	2.2	C

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	42	109.5%	31.0	8.9	C
	Through	5	5	104.0%	18.3	21.0	B
	Right Turn	15	22	146.7%	14.8	6.7	B
	Subtotal	58	69	118.6%	25.9	6.4	C
SB	Left Turn	44	43	98.2%	34.8	10.1	C
	Through	5	3	64.0%	20.9	25.2	C
	Right Turn	58	62	107.6%	22.4	4.4	C
	Subtotal	107	109	101.7%	27.5	5.5	C
EB	Left Turn	24	16	66.7%	51.2	18.7	D
	Through	1,333	1,162	87.2%	19.9	3.2	B
	Right Turn	44	38	85.5%	19.9	9.3	B
	Subtotal	1,401	1,216	86.8%	20.3	3.3	C
WB	Left Turn	45	44	96.9%	48.8	10.1	D
	Through	1,576	1,594	101.2%	16.2	5.4	B
	Right Turn	24	30	123.3%	9.2	3.8	A
	Subtotal	1,645	1,668	101.4%	16.9	5.2	B
Total		3,211	3,061	95.3%	18.8	3.4	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	79	79	99.7%	6.6	1.1	A
	Right Turn	49	46	93.9%	3.4	0.4	A
	Subtotal	128	125	97.5%	5.4	0.8	A
SB	Left Turn	77	80	103.4%	7.7	0.9	A
	Through	376	360	95.7%	7.8	0.9	A
	Right Turn						
	Subtotal	453	440	97.0%	7.8	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	58	94.4%	11.6	2.1	B
	Through						
	Right Turn	297	297	100.1%	6.8	0.6	A
	Subtotal	358	355	99.1%	7.5	0.7	A
Total		939	919	97.9%	7.4	0.5	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	350	336	95.9%	50.2	17.1	F
	Through	576	542	94.1%	59.3	19.3	F
	Right Turn	2	2	120.0%	14.7	27.5	B
	Subtotal	928	880	94.8%	55.8	18.5	F
SB	Left Turn	177	136	77.1%	11.7	0.9	B
	Through	479	385	80.3%	20.6	3.9	C
	Right Turn	13	9	70.8%	15.2	9.0	C
	Subtotal	669	530	79.3%	18.2	3.1	C
EB	Left Turn	12	8	70.0%	11.6	3.0	B
	Through	55	46	82.9%	11.3	1.4	B
	Right Turn	118	110	93.2%	6.6	1.0	A
	Subtotal	185	164	88.6%	8.2	0.8	A
WB	Left Turn	2	2	100.0%	3.3	6.2	A
	Through	53	61	114.7%	10.9	1.5	B
	Right Turn	150	143	95.5%	7.0	1.1	A
	Subtotal	205	206	100.5%	8.2	1.3	A
Total		1,987	1,780	89.6%	34.8	9.0	D

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	500	345	69.0%	38.2	6.3	D
	Right Turn	33	27	81.2%	32.0	10.1	C
	Subtotal	533	372	69.7%	37.8	6.2	D
SB	Left Turn	716	446	62.3%	163.2	15.4	F
	Through	718	504	70.3%	34.8	10.9	C
	Right Turn	20	10	52.0%	29.4	16.1	C
	Subtotal	1,454	961	66.1%	95.1	14.4	F
EB	Left Turn	40	40	99.0%	38.5	17.5	D
	Through	9	9	97.8%	37.6	23.9	D
	Right Turn	11	8	76.4%	16.7	15.9	B
	Subtotal	60	57	94.7%	35.9	17.2	D
WB	Left Turn	83	94	112.8%	31.7	3.2	C
	Through	3	5	173.3%	12.8	9.8	B
	Right Turn	398	400	100.4%	14.0	2.6	B
	Subtotal	484	498	103.0%	17.4	2.1	B
Total		2,531	1,888	74.6%	61.4	7.3	E

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	140	138	98.9%	11.6	1.3	B
	Through	404	387	95.8%	9.5	0.5	A
	Right Turn	18	16	86.7%	7.7	1.9	A
	Subtotal	562	541	96.3%	10.0	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	176	122	69.5%	42.0	3.2	E
	Through	708	486	68.7%	41.9	3.4	E
	Right Turn						
	Subtotal	884	609	68.9%	41.9	3.2	E
WB	Left Turn						
	Through	374	393	105.1%	16.4	5.8	C
	Right Turn	6	6	106.7%	12.0	10.1	B
	Subtotal	380	400	105.2%	16.4	5.8	C
Total		1,826	1,550	84.9%	24.2	1.9	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	35.0	47.7	C
	Through	251	168	66.8%	9.7	5.8	A
	Right Turn						
	Subtotal	256	171	66.7%	10.8	6.2	B
SB	Left Turn						
	Through	826	637	77.1%	24.3	5.1	C
	Right Turn	33	23	69.1%	33.1	15.7	C
	Subtotal	859	660	76.8%	24.6	5.3	C
EB	Left Turn	127	82	64.9%	44.6	31.5	D
	Through						
	Right Turn	614	391	63.7%	26.9	12.5	C
	Subtotal	741	474	63.9%	30.3	16.2	C
WB	Left Turn	5	2	32.0%	20.9	14.5	C
	Through	555	384	69.2%	48.0	23.2	D
	Right Turn	295	219	74.2%	25.3	8.7	C
	Subtotal	855	604	70.7%	39.4	17.0	D
Total		2,711	1,909	70.4%	28.8	6.1	C

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	8	69.1%	66.0	29.9	E
	Through	672	503	74.9%	45.3	3.5	D
	Right Turn	76	50	65.3%	18.4	2.5	B
	Subtotal	759	560	73.8%	43.3	3.5	D
SB	Left Turn	109	61	56.1%	90.6	26.6	F
	Through	740	445	60.1%	61.7	10.4	E
	Right Turn	15	8	50.7%	65.1	29.5	E
	Subtotal	864	514	59.4%	65.5	10.0	E
EB	Left Turn	5	4	88.0%	9.5	11.6	A
	Through	35	40	113.1%	14.0	3.7	B
	Right Turn	5	5	96.0%	18.6	13.9	B
	Subtotal	45	49	108.4%	14.5	4.0	B
WB	Left Turn	218	107	49.2%	234.7	68.2	F
	Through	5	3	56.0%	160.9	185.0	F
	Right Turn	31	14	43.9%	231.3	99.1	F
	Subtotal	254	124	48.7%	236.5	66.0	F
Total		1,922	1,246	64.8%	68.8	6.3	E

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	29.2	55.3	C
	Through	488	290	59.4%	31.1	16.5	C
	Right Turn	205	133	64.8%	10.1	2.0	B
	Subtotal	698	425	60.9%	24.4	9.8	C
SB	Left Turn	104	69	66.2%	30.1	7.6	C
	Through	682	432	63.4%	42.7	12.8	D
	Right Turn	51	40	78.4%	53.2	22.8	D
	Subtotal	837	541	64.7%	41.7	12.5	D
EB	Left Turn	39	22	57.4%	52.5	31.2	D
	Through	100	74	74.0%	56.4	36.5	E
	Right Turn	81	55	68.1%	47.8	42.7	D
	Subtotal	220	152	68.9%	53.5	37.7	D
WB	Left Turn	22	12	52.7%	196.5	89.6	F
	Through	198	110	55.8%	195.2	65.6	F
	Right Turn	10	5	48.0%	222.0	159.6	F
	Subtotal	230	127	55.1%	197.5	63.1	F
Total		1,985	1,245	62.7%	52.0	10.1	D

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	454	312	68.7%	16.4	4.0	B
	Through	941	684	72.7%	18.1	7.3	B
	Right Turn	41	30	74.1%	28.0	20.8	C
	Subtotal	1,436	1,026	71.5%	17.9	6.3	B
EB	Left Turn	254	169	66.5%	21.7	5.5	C
	Through	96	66	68.8%	23.6	7.7	C
	Right Turn	59	44	74.6%	21.3	9.9	C
	Subtotal	409	279	68.2%	21.9	6.1	C
WB	Left Turn	274	178	64.8%	74.0	20.6	E
	Through	189	130	68.8%	90.1	35.5	F
	Right Turn	2	2	120.0%	54.4	34.0	D
	Subtotal	465	310	66.7%	80.9	26.8	F
Total		2,310	1,615	69.9%	29.9	6.8	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	9	61.3%	80.2	83.0	F
	Through	852	670	78.6%	34.3	19.6	C
	Right Turn	215	195	90.6%	11.1	1.8	B
	Subtotal	1,082	874	80.7%	29.3	15.3	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	108	73	67.8%	30.3	13.0	C
	Through	442	305	69.0%	25.9	8.9	C
	Right Turn						
	Subtotal	550	378	68.8%	26.6	9.4	C
WB	Left Turn						
	Through	450	315	70.0%	93.9	42.5	F
	Right Turn	3	4	120.0%	74.8	105.1	E
	Subtotal	453	318	70.3%	93.6	42.9	F
Total		2,085	1,570	75.3%	40.6	12.4	D

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	396	333	84.0%	50.7	11.6	D
	Through	705	513	72.7%	100.0	15.0	F
	Right Turn						
	Subtotal	1,101	846	76.8%	80.9	9.9	F
SB	Left Turn						
	Through						
	Right Turn	979	568	58.0%	51.5	5.5	D
	Subtotal	979	568	58.0%	51.5	5.5	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,643	2,088	79.0%	28.6	3.3	C
	Right Turn	47	32	68.9%	26.0	9.0	C
	Subtotal	2,690	2,120	78.8%	28.6	3.2	C
Total		4,770	3,533	74.1%	44.6	3.1	D

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	260	145	55.8%	89.7	17.2	F
	Through	668	396	59.3%	86.2	15.1	F
	Right Turn						
	Subtotal	928	542	58.4%	87.1	15.5	F
SB	Left Turn						
	Through	441	281	63.7%	51.9	8.5	D
	Right Turn	344	228	66.2%	42.4	8.2	D
	Subtotal	785	508	64.8%	47.6	8.3	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	10	55.6%	42.8	20.7	D
	Through	2,086	1,775	85.1%	55.2	7.6	E
	Right Turn	30	28	92.0%	57.9	22.4	E
	Subtotal	2,134	1,813	84.9%	55.2	7.7	E
Total		3,847	2,863	74.4%	59.8	6.5	E

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	1,040	746	71.7%	24.6	2.1	C
	Right Turn	234	166	70.9%	35.6	23.6	D
	Subtotal	1,274	912	71.6%	26.7	5.0	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	259	234	90.5%	24.3	6.1	C
	Through	1,900	1,685	88.7%	30.9	7.1	C
	Right Turn						
	Subtotal	2,159	1,920	88.9%	30.0	6.8	C
Total		3,433	2,832	82.5%	29.0	5.7	C

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	502	332	66.1%	164.5	42.5	F
	Through	950	795	83.7%	72.8	16.9	E
	Right Turn						
	Subtotal	1,452	1,127	77.6%	99.5	22.1	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,657	1,601	96.6%	25.4	8.7	C
	Right Turn	132	118	89.7%	31.2	14.1	C
	Subtotal	1,789	1,720	96.1%	25.8	8.6	C
Total		3,241	2,846	87.8%	54.2	8.4	D

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	2	48.0%	64.4	77.5	E
	Through	787	676	85.9%	61.5	25.7	E
	Right Turn	27	26	97.8%	29.1	21.7	C
	Subtotal	819	705	86.1%	60.4	25.2	E
SB	Left Turn	277	228	82.5%	77.1	23.1	E
	Through	330	288	87.3%	82.3	18.7	F
	Right Turn						
	Subtotal	607	516	85.1%	79.8	19.3	E
EB	Left Turn	5	4	88.0%	63.0	79.0	E
	Through	739	653	88.3%	70.8	26.1	E
	Right Turn	591	551	93.3%	56.9	13.5	E
	Subtotal	1,335	1,208	90.5%	64.0	18.4	E
NB	Left Turn						
	Through						
	Right Turn	151	139	92.2%	11.1	5.2	B
	Subtotal	151	139	92.2%	11.1	5.2	B
Total		2,912	2,569	88.2%	63.1	15.2	E

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	351	342	97.3%	37.4	15.5	D
	Right Turn	459	468	102.0%	19.8	5.1	B
	Subtotal	810	810	100.0%	27.3	9.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	750	543	72.4%	80.6	30.9	F
	Through	1,186	1,068	90.1%	29.2	8.2	C
	Right Turn	103	104	101.0%	26.8	8.3	C
	Subtotal	2,039	1,715	84.1%	44.9	14.4	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,849	2,525	88.6%	39.0	10.9	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	101	70	69.7%	7.1	1.1	A
	Through	1,198	911	76.0%	7.1	0.8	A
	Right Turn						
	Subtotal	1,299	981	75.5%	7.1	0.7	A
EB	Left Turn						
	Through	1,312	1,215	92.6%	11.2	0.8	B
	Right Turn	383	363	94.8%	10.7	1.4	B
	Subtotal	1,695	1,578	93.1%	11.1	0.8	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,994	2,560	85.5%	9.6	0.5	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	543	393	72.3%	16.1	4.3	B
	Right Turn	165	121	73.2%	9.9	6.9	A
	Subtotal	708	514	72.5%	14.6	4.8	B
SB	Left Turn	343	215	62.7%	108.7	11.6	F
	Through	608	381	62.7%	99.5	14.3	F
	Right Turn						
	Subtotal	951	596	62.7%	103.0	11.0	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	256	149	58.1%	131.7	54.3	F
	Through						
	Right Turn	174	113	64.8%	40.0	19.2	D
	Subtotal	430	262	60.8%	93.7	42.8	F
Total		2,089	1,372	65.7%	66.6	7.6	E

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	42	66.3%	42.0	26.9	D
	Through	366	227	62.0%	9.1	4.5	A
	Right Turn	127	64	50.7%	8.3	13.2	A
	Subtotal	557	334	59.9%	13.4	7.0	B
SB	Left Turn	241	171	71.0%	78.9	9.2	E
	Through	552	366	66.2%	85.2	14.5	F
	Right Turn	83	57	68.4%	89.2	33.0	F
	Subtotal	876	594	67.8%	84.0	13.9	F
EB	Left Turn	7	5	74.3%	19.2	19.4	B
	Through	373	241	64.6%	28.5	11.6	C
	Right Turn	128	81	63.4%	23.6	14.5	C
	Subtotal	508	327	64.4%	27.2	11.8	C
WB	Left Turn	105	72	68.2%	138.7	69.0	F
	Through	283	190	67.0%	72.2	42.4	E
	Right Turn	205	127	61.9%	74.9	51.1	E
	Subtotal	593	388	65.4%	84.6	34.4	F
Total		2,534	1,642	64.8%	56.8	9.7	E

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	44.3	38.0	D
	Through	481	482	100.2%	30.7	3.0	C
	Right Turn	95	96	100.6%	7.4	1.2	A
	Subtotal	581	582	100.1%	27.1	2.5	C
SB	Left Turn	155	149	96.0%	45.1	5.4	D
	Through	450	452	100.5%	25.0	4.0	C
	Right Turn	556	529	95.1%	25.7	6.1	C
	Subtotal	1,161	1,130	97.3%	27.9	4.6	C
EB	Left Turn	367	370	100.9%	45.5	5.6	D
	Through	99	105	106.3%	24.7	5.0	C
	Right Turn	5	8	168.0%	7.3	8.1	A
	Subtotal	471	484	102.8%	40.3	4.2	D
WB	Left Turn	201	202	100.5%	48.5	7.7	D
	Through	429	414	96.6%	35.6	8.3	D
	Right Turn	209	204	97.8%	17.7	4.9	B
	Subtotal	839	821	97.8%	34.2	5.9	C
Total		3,052	3,016	98.8%	31.5	2.8	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	319	322	100.9%	40.4	2.9	D
	Right Turn	86	81	94.0%	20.6	6.9	C
	Subtotal	406	403	99.2%	36.4	3.1	D
SB	Left Turn	257	247	96.0%	35.1	3.3	D
	Through	466	446	95.6%	37.3	3.8	D
	Right Turn	216	210	97.4%	30.0	3.9	C
	Subtotal	939	903	96.1%	35.0	2.9	D
EB	Left Turn	59	66	111.9%	57.3	10.5	E
	Through	285	280	98.2%	32.1	3.4	C
	Right Turn	5	6	120.0%	12.6	15.2	B
	Subtotal	349	352	100.9%	36.8	3.1	D
WB	Left Turn	96	100	104.2%	54.8	5.5	D
	Through	622	600	96.4%	37.8	2.3	D
	Right Turn	121	117	96.5%	34.1	5.5	C
	Subtotal	839	816	97.3%	39.3	2.3	D
Total		2,533	2,474	97.7%	36.9	1.8	D

Intersection 17 **12th St/9 St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	186	180	96.8%	11.8	1.1	B
	Through	1,370	1,335	97.5%	9.2	0.6	A
	Right Turn	5	4	72.0%	1.9	2.5	A
	Subtotal	1,561	1,519	97.3%	9.4	0.7	A
EB	Left Turn						
	Through	387	398	102.7%	18.3	3.8	B
	Right Turn	22	24	107.3%	11.5	3.8	B
	Subtotal	409	421	103.0%	17.9	3.7	B
WB	Left Turn	51	46	89.4%	30.5	11.7	C
	Through	31	34	108.4%	12.5	3.3	B
	Right Turn						
	Subtotal	82	79	96.6%	21.9	6.0	C
Total		2,052	2,019	98.4%	11.8	1.0	B

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	252	250	99.0%	18.7	0.7	B
	Through	1,168	1,133	97.0%	18.7	0.8	B
	Right Turn	23	19	83.5%	15.0	4.9	B
	Subtotal	1,443	1,402	97.1%	18.7	0.7	B
EB	Left Turn						
	Through	455	432	94.9%	54.8	21.8	D
	Right Turn	241	242	100.4%	50.2	23.5	D
	Subtotal	696	674	96.8%	53.2	22.2	D
WB	Left Turn	6	6	106.7%	21.2	15.5	C
	Through	220	229	104.0%	10.9	3.3	B
	Right Turn						
	Subtotal	226	235	104.1%	11.1	3.4	B
Total		2,365	2,311	97.7%	28.0	6.7	C

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	88	88.5%	60.2	13.4	E
	Through	151	129	85.6%	37.8	9.7	D
	Right Turn	747	561	75.1%	59.4	22.6	E
	Subtotal	997	778	78.0%	56.0	19.0	E
SB	Left Turn	180	185	102.9%	65.1	15.4	E
	Through	747	709	94.9%	43.3	18.6	D
	Right Turn	112	118	105.0%	44.5	22.0	D
	Subtotal	1,039	1,012	97.4%	47.5	18.5	D
EB	Left Turn	49	37	75.9%	72.2	13.3	E
	Through	472	392	83.0%	36.9	6.8	D
	Right Turn	5	6	112.0%	27.8	27.0	C
	Subtotal	526	434	82.6%	40.0	7.0	D
WB	Left Turn	196	160	81.8%	67.3	28.2	E
	Through	364	305	83.8%	58.0	7.5	E
	Right Turn	247	218	88.4%	51.1	8.2	D
	Subtotal	807	684	84.8%	57.9	6.3	E
Total		3,369	2,908	86.3%	51.0	9.2	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	8	9	115.0%	40.9	26.8	D
	Through	403	414	102.6%	13.5	2.6	B
	Right Turn	5	4	72.0%	5.5	10.7	A
	Subtotal	416	426	102.5%	14.2	2.6	B
SB	Left Turn						
	Through						
	Right Turn	21	25	120.0%	0.1	0.2	A
	Subtotal	21	25	120.0%	0.1	0.2	A
EB	Left Turn						
	Through	1,243	907	73.0%	54.4	5.8	D
	Right Turn	537	392	73.1%	68.4	7.7	E
	Subtotal	1,780	1,300	73.0%	58.7	6.3	E
SW	Left Turn	63	52	83.2%	21.9	3.6	C
	Through	1,290	1,246	96.6%	20.9	1.8	C
	Right Turn	475	461	97.1%	31.4	8.2	C
	Subtotal	1,828	1,759	96.2%	23.6	2.8	C
Total		4,045	3,510	86.8%	35.3	2.7	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	248	248	100.0%	27.3	2.9	C
	Through	2,588	2,589	100.0%	22.2	1.6	C
	Right Turn	12	10	86.7%	11.3	8.5	B
	Subtotal	2,848	2,848	100.0%	22.6	1.7	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	1,267	924	73.0%	34.9	5.8	C
	Through	18	12	64.4%	37.4	13.8	D
	Right Turn						
	Subtotal	1,285	936	72.8%	34.9	5.8	C
WB	Left Turn						
	Through	28	36	128.6%	12.6	4.0	B
	Right Turn	18	18	97.8%	14.1	6.9	B
	Subtotal	46	54	116.5%	13.3	3.9	B
Total		4,179	3,837	91.8%	25.5	1.8	C

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	457	330	72.1%	49.3	12.4	D
	Through	267	202	75.7%	26.3	9.1	C
	Right Turn	16	12	75.0%	19.2	12.9	B
	Subtotal	740	544	73.5%	40.1	10.2	D
SB	Left Turn	23	20	85.2%	78.6	39.8	E
	Through	272	242	89.1%	92.2	38.4	F
	Right Turn	70	70	99.4%	84.8	39.4	F
	Subtotal	365	332	90.8%	90.0	38.0	F
EB	Left Turn	59	58	99.0%	60.9	8.3	E
	Through	388	376	97.0%	32.1	10.5	C
	Right Turn	311	291	93.5%	23.8	13.8	C
	Subtotal	758	726	95.7%	31.2	10.8	C
WB	Left Turn	19	17	90.5%	80.1	27.3	F
	Through	503	408	81.0%	32.4	5.6	C
	Right Turn	25	19	75.2%	20.6	16.6	C
	Subtotal	547	444	81.1%	33.5	5.3	C
Total		2,410	2,044	84.8%	43.4	9.1	D

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	229	155	67.8%	16.7	1.8	B
	Through						
	Right Turn	307	231	75.2%	11.4	2.5	B
	Subtotal	536	386	72.0%	13.5	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	219	202	92.4%	45.2	12.4	D
	Right Turn	208	202	97.3%	37.8	9.6	D
	Subtotal	427	405	94.8%	41.6	10.6	D
WB	Left Turn	257	233	90.6%	30.7	6.8	C
	Through	318	283	88.9%	11.0	2.4	B
	Right Turn						
	Subtotal	575	516	89.7%	19.9	4.4	B
Total		1,538	1,306	84.9%	24.7	4.4	C

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	30	100.0%	34.2	16.2	C
	Through						
	Right Turn	195	164	84.1%	25.8	11.5	C
	Subtotal	225	194	86.2%	26.9	11.1	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,397	1,122	80.3%	17.2	3.5	B
	Right Turn	2	2	80.0%	6.0	11.0	A
	Subtotal	1,399	1,124	80.3%	17.2	3.5	B
WB	Left Turn	50	38	76.0%	36.2	11.1	D
	Through	777	685	88.2%	51.9	14.2	D
	Right Turn						
	Subtotal	827	723	87.4%	51.1	13.8	D
Total		2,451	2,041	83.3%	30.2	4.4	C

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	54.8	55.2	D
	Through	393	318	80.8%	38.7	8.7	D
	Right Turn	194	165	84.9%	28.6	7.3	C
	Subtotal	592	486	82.0%	35.8	7.6	D
SB	Left Turn	19	16	86.3%	106.5	41.8	F
	Through	77	72	94.0%	75.5	50.6	E
	Right Turn	228	220	96.3%	66.5	53.9	E
	Subtotal	324	308	95.2%	70.7	51.9	E
EB	Left Turn	87	63	72.2%	93.1	18.6	F
	Through	1,567	1,197	76.4%	63.1	17.5	E
	Right Turn	5	2	40.0%	40.3	29.9	D
	Subtotal	1,659	1,262	76.1%	64.6	17.4	E
WB	Left Turn	255	249	97.7%	44.4	9.4	D
	Through	629	594	94.4%	26.9	16.7	C
	Right Turn	10	14	144.0%	32.6	36.5	C
	Subtotal	894	858	95.9%	32.2	14.5	C
Total		3,469	2,914	84.0%	50.1	12.5	D

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	581	342	58.9%	17.9	8.9	C
	Right Turn	189	119	63.1%	14.4	8.5	B
	Subtotal	770	461	59.9%	16.9	8.6	C
SB	Left Turn	74	46	62.7%	178.1	128.6	F
	Through	303	192	63.2%	182.2	127.2	F
	Right Turn						
	Subtotal	377	238	63.1%	180.0	125.8	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	116	46	39.3%	290.1	278.3	F
	Through						
	Right Turn	139	71	51.2%	161.0	231.1	F
	Subtotal	255	117	45.8%	203.9	241.8	F
Total		1,402	816	58.2%	79.6	53.5	F

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	146	128	87.9%	81.2	15.1	F
	Through	498	380	76.2%	34.1	6.7	C
	Right Turn	13	8	64.6%	26.2	18.8	C
	Subtotal	657	516	78.6%	45.8	9.5	D
SB	Left Turn	23	18	80.0%	114.9	25.2	F
	Through	507	424	83.6%	82.2	34.9	F
	Right Turn	72	56	77.2%	75.1	31.8	E
	Subtotal	602	498	82.7%	82.8	33.5	F
EB	Left Turn	161	98	60.6%	157.5	80.3	F
	Through	184	107	58.3%	156.6	72.5	F
	Right Turn	148	92	62.4%	155.1	87.2	F
	Subtotal	493	297	60.3%	155.8	78.2	F
WB	Left Turn	21	16	76.2%	73.7	47.0	E
	Through	87	86	99.3%	57.9	17.3	E
	Right Turn	36	28	77.8%	38.4	22.6	D
	Subtotal	144	130	90.6%	55.6	17.3	E
Total		1,896	1,442	76.0%	79.9	20.6	E

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	48	39	81.7%	7.7	2.4	A
	Through	5	7	144.0%	6.1	2.4	A
	Right Turn	33	26	78.8%	5.5	2.9	A
	Subtotal	86	72	84.2%	6.8	2.5	A
SB	Left Turn	5	7	136.0%	5.1	2.9	A
	Through	5	5	104.0%	4.8	4.5	A
	Right Turn	20	21	106.0%	5.0	2.8	A
	Subtotal	30	33	110.7%	5.6	2.1	A
EB	Left Turn	22	12	56.4%	3.6	1.9	A
	Through	174	108	62.1%	2.4	0.5	A
	Right Turn	24	19	78.3%	2.1	0.9	A
	Subtotal	220	139	63.3%	2.5	0.4	A
WB	Left Turn	20	14	70.0%	3.6	1.6	A
	Through	76	71	93.7%	2.0	0.5	A
	Right Turn	17	12	70.6%	1.6	1.0	A
	Subtotal	113	97	86.0%	2.2	0.5	A
Total		449	342	76.2%	3.7	0.5	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	9	58.7%	26.1	17.5	D
	Through	323	218	67.4%	29.6	13.2	D
	Right Turn	153	102	66.4%	27.1	15.1	D
	Subtotal	491	328	66.8%	28.9	13.6	D
SB	Left Turn	67	58	86.6%	35.2	42.5	E
	Through	337	308	91.4%	39.8	40.0	E
	Right Turn	43	35	81.9%	32.5	36.5	D
	Subtotal	447	401	89.8%	38.6	39.7	E
EB	Left Turn	98	67	68.2%	17.8	3.5	C
	Through	89	54	60.7%	18.1	5.1	C
	Right Turn	25	20	80.0%	18.0	7.6	C
	Subtotal	212	141	66.4%	17.8	4.0	C
WB	Left Turn	231	188	81.6%	39.1	22.9	E
	Through	55	50	90.2%	36.3	23.0	E
	Right Turn	74	62	83.8%	32.5	15.3	D
	Subtotal	360	300	83.3%	37.5	21.1	E
Total		1,510	1,170	77.5%	33.1	17.5	D

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	74	79.6%	46.2	12.3	D
	Through	714	603	84.4%	16.6	8.6	B
	Right Turn						
	Subtotal	807	677	83.9%	19.8	7.6	B
SB	Left Turn						
	Through	720	601	83.5%	31.4	19.1	C
	Right Turn	267	234	87.6%	37.6	25.3	D
	Subtotal	987	835	84.6%	33.1	20.5	C
EB	Left Turn	250	163	65.3%	29.4	16.3	C
	Through						
	Right Turn	59	40	67.8%	32.5	27.6	C
	Subtotal	309	203	65.8%	29.9	18.4	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,103	1,715	81.6%	27.2	12.3	C

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	302	278	91.9%	81.8	17.1	F
	Through						
	Right Turn	70	67	96.0%	28.0	10.4	C
	Subtotal	372	345	92.7%	71.2	14.2	E
EB	Left Turn						
	Through	1,290	748	58.0%	294.1	9.4	F
	Right Turn						
	Subtotal	1,290	748	58.0%	294.1	9.4	F
WB	Left Turn						
	Through	1,555	930	59.8%	18.0	2.1	B
	Right Turn	544	334	61.3%	4.7	0.9	A
	Subtotal	2,099	1,264	60.2%	14.5	1.7	B
Total		3,761	2,356	62.7%	111.5	5.6	F

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	297	173	58.3%	215.0	25.2	F
	Through	93	50	53.8%	124.5	20.5	F
	Right Turn	5	2	40.0%	96.1	34.1	F
	Subtotal	395	225	57.0%	194.3	27.1	F
SB	Left Turn	4	3	80.0%	255.2	95.8	F
	Through	27	12	43.0%	353.4	137.3	F
	Right Turn	335	151	45.1%	350.2	126.6	F
	Subtotal	366	166	45.4%	349.1	123.3	F
EB	Left Turn	374	213	57.0%	50.4	4.6	D
	Through	824	536	65.0%	32.7	1.5	C
	Right Turn	394	247	62.7%	27.5	1.4	C
	Subtotal	1,592	996	62.6%	35.1	1.3	D
WB	Left Turn	5	2	48.0%	67.3	51.1	E
	Through	1,384	922	66.6%	51.6	1.6	D
	Right Turn	84	67	79.5%	35.0	8.2	C
	Subtotal	1,473	991	67.3%	50.6	1.7	D
Total		3,826	2,378	62.2%	76.5	4.6	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	254	204	80.2%	59.8	5.8	E
	Through	2	3	160.0%	22.5	23.4	C
	Right Turn	66	54	82.4%	49.8	8.8	D
	Subtotal	322	261	81.1%	57.4	5.7	E
SB	Left Turn	146	131	89.9%	60.8	10.6	E
	Through	66	57	86.1%	66.7	17.3	E
	Right Turn	82	81	98.5%	53.2	14.4	D
	Subtotal	294	269	91.4%	59.0	10.7	E
EB	Left Turn	82	46	56.6%	100.8	24.0	F
	Through	663	422	63.6%	26.4	8.6	C
	Right Turn	123	83	67.6%	24.4	12.1	C
	Subtotal	868	551	63.5%	32.4	9.8	C
WB	Left Turn	28	12	42.9%	155.6	60.2	F
	Through	1,116	688	61.6%	107.1	21.8	F
	Right Turn	186	114	61.1%	82.1	18.8	F
	Subtotal	1,330	814	61.2%	104.6	21.2	F
Total		2,814	1,895	67.3%	70.4	10.6	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	227	138	60.8%	118.1	29.5	F
	Through	5	4	88.0%	92.4	29.9	F
	Right Turn	228	146	64.0%	117.3	64.8	F
	Subtotal	460	288	62.7%	116.5	44.3	F
SB	Left Turn	10	9	92.0%	53.8	48.2	D
	Through	5	5	96.0%	34.4	34.6	C
	Right Turn	10	9	92.0%	17.3	21.6	B
	Subtotal	25	23	92.8%	44.7	27.1	D
EB	Left Turn	5	2	40.0%	30.8	34.8	C
	Through	930	666	71.7%	34.0	12.2	C
	Right Turn	10	8	80.0%	27.0	21.2	C
	Subtotal	945	676	71.6%	34.1	12.2	C
WB	Left Turn	19	12	63.2%	101.2	30.3	F
	Through	953	652	68.4%	36.6	14.1	D
	Right Turn	10	6	56.0%	29.1	26.2	C
	Subtotal	982	670	68.2%	37.8	14.0	D
Total		2,412	1,658	68.7%	48.6	7.7	D

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	29	20	70.3%	100.3	41.0	F
	Through	288	232	80.7%	58.0	17.6	E
	Right Turn	106	93	87.5%	52.0	20.8	D
	Subtotal	423	346	81.7%	58.6	17.8	E
SB	Left Turn	151	120	79.7%	134.4	28.8	F
	Through	426	301	70.6%	82.6	22.8	F
	Right Turn	169	117	69.1%	75.5	24.5	E
	Subtotal	746	538	72.1%	92.7	24.2	F
EB	Left Turn	273	179	65.6%	96.8	18.7	F
	Through	953	651	68.3%	35.2	9.8	D
	Right Turn	12	10	80.0%	36.9	36.2	D
	Subtotal	1,238	840	67.8%	48.5	13.0	D
WB	Left Turn	59	48	80.7%	107.0	26.9	F
	Through	644	465	72.2%	63.9	21.4	E
	Right Turn	35	27	77.7%	54.5	31.2	D
	Subtotal	738	540	73.2%	67.6	20.5	E
Total		3,145	2,263	72.0%	64.3	8.5	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	26	12	47.7%	235.4	183.5	F
	Subtotal	26	12	47.7%	195.0	186.7	F
EB	Left Turn						
	Through	1,210	875	72.3%	7.5	2.5	A
	Right Turn						
	Subtotal	1,210	875	72.3%	7.5	2.5	A
WB	Left Turn						
	Through	712	535	75.2%	17.3	9.3	C
	Right Turn	32	26	80.0%	13.6	13.1	B
	Subtotal	744	561	75.4%	17.1	9.3	C
Total		1,980	1,448	73.1%	12.9	3.5	B

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	94.5%	97.4	26.5	F
	Through	160	102	64.0%	73.0	20.9	E
	Right Turn	320	238	74.4%	65.4	22.3	E
	Subtotal	491	351	71.4%	68.2	21.2	E
SB	Left Turn	112	105	93.9%	103.0	18.0	F
	Through	261	207	79.2%	54.8	17.3	D
	Right Turn	254	205	80.6%	47.0	13.4	D
	Subtotal	627	517	82.4%	61.3	14.9	E
EB	Left Turn	250	145	57.9%	92.1	10.3	F
	Through	945	715	75.6%	30.9	4.2	C
	Right Turn	15	11	72.0%	20.3	11.8	C
	Subtotal	1,210	870	71.9%	40.9	5.6	D
WB	Left Turn	208	143	68.7%	102.0	19.0	F
	Through	479	351	73.2%	46.0	8.3	D
	Right Turn	84	58	69.5%	42.3	9.8	D
	Subtotal	771	552	71.6%	60.1	7.3	E
Total		3,099	2,290	73.9%	54.1	3.0	D

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	238	189	79.3%	191.9	69.9	F
	Through	463	433	93.6%	43.3	13.7	D
	Right Turn	237	228	96.2%	31.0	10.5	C
	Subtotal	938	850	90.6%	72.0	19.8	E
SB	Left Turn	20	18	92.0%	102.1	36.7	F
	Through	584	456	78.1%	102.5	23.2	F
	Right Turn	175	108	61.5%	235.1	79.5	F
	Subtotal	779	582	74.7%	125.5	28.9	F
EB	Left Turn	325	230	70.9%	59.5	3.2	E
	Through	449	332	73.9%	25.9	2.2	C
	Right Turn	603	474	78.7%	7.4	1.1	A
	Subtotal	1,377	1,037	75.3%	24.9	1.0	C
WB	Left Turn	267	200	74.8%	111.5	31.5	F
	Through	358	270	75.3%	135.0	49.6	F
	Right Turn	19	18	94.7%	136.6	64.9	F
	Subtotal	644	487	75.7%	125.3	41.7	F
Total		3,738	2,956	79.1%	73.6	10.4	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	3	56.0%	36.5	54.5	E
	Through						
	Right Turn	15	8	53.3%	67.8	66.5	F
	Subtotal	20	11	54.0%	60.8	55.1	F
EB	Left Turn	105	82	77.7%	12.0	4.2	B
	Through	601	486	80.9%	2.7	0.7	A
	Right Turn						
	Subtotal	706	568	80.4%	4.1	1.0	A
WB	Left Turn						
	Through	629	510	81.0%	43.4	27.1	E
	Right Turn	5	5	96.0%	30.1	29.9	D
	Subtotal	634	514	81.1%	43.2	26.7	E
Total		1,360	1,093	80.4%	22.4	11.6	C

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	361	338	93.7%	20.4	7.4	C
	Subtotal	361	338	93.7%	20.4	7.4	C
EB	Left Turn	606	484	79.9%	23.2	3.5	C
	Through						
	Right Turn						
	Subtotal	606	484	79.9%	23.2	3.5	C
WB	Left Turn						
	Through	250	209	83.7%	28.6	13.8	C
	Right Turn	10	8	80.0%	24.2	24.9	C
	Subtotal	260	217	83.5%	28.5	13.6	C
Total		1,227	1,040	84.8%	23.4	5.1	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	60.4	68.2	F
	Through	101	69	68.1%	139.7	54.3	F
	Right Turn	180	117	65.1%	129.5	56.5	F
	Subtotal	286	190	66.4%	132.0	54.4	F
SB	Left Turn	254	160	63.0%	16.8	7.6	C
	Through	124	78	62.6%	13.3	3.4	B
	Right Turn	33	20	60.6%	10.0	4.4	A
	Subtotal	411	258	62.7%	15.3	6.2	C
EB	Left Turn	122	71	58.0%	145.9	52.1	F
	Through	140	100	71.4%	118.6	47.1	F
	Right Turn	5	2	48.0%	56.0	62.2	F
	Subtotal	267	173	64.9%	130.0	48.3	F
WB	Left Turn	168	94	56.2%	164.2	56.8	F
	Through	90	50	55.1%	163.3	50.3	F
	Right Turn	138	75	54.5%	169.7	58.1	F
	Subtotal	396	219	55.4%	166.1	55.1	F
Total		1,360	840	61.8%	102.8	31.1	F

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	178	124	69.7%	42.8	43.5	E
	Through						
	Right Turn	39	24	60.5%	45.6	47.9	E
	Subtotal	217	148	68.0%	43.3	44.1	E
EB	Left Turn	55	40	72.7%	8.5	8.9	A
	Through	485	314	64.8%	7.5	15.4	A
	Right Turn						
	Subtotal	540	354	65.6%	7.7	14.7	A
WB	Left Turn						
	Through	267	199	74.6%	33.3	35.3	D
	Right Turn	218	162	74.3%	26.4	31.8	D
	Subtotal	485	361	74.5%	30.4	33.9	D
Total		1,242	863	69.5%	21.0	16.9	C

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **PM Peak Hour**

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	75	7	9.6%	4.0	2.2	A
	Through						
	Right Turn	20	14	72.0%	5.4	6.4	A
	Subtotal	95	22	22.7%	5.0	2.7	A
EB	Left Turn	11	39	352.7%	44.4	42.2	E
	Through	742	343	46.3%	32.1	17.6	D
	Right Turn						
	Subtotal	753	382	50.7%	33.1	19.3	D
WB	Left Turn						
	Through	403	261	64.8%	52.5	26.1	F
	Right Turn	80	95	119.0%	57.9	51.3	F
	Subtotal	483	356	73.8%	53.2	30.3	F
Total		1,331	760	57.1%	41.9	21.9	E

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	148	478.7%	128.2	57.5	F
	Through	229	237	103.6%	73.2	30.0	E
	Right Turn	212	62	29.4%	67.6	33.7	E
	Subtotal	472	448	94.9%	91.5	40.0	F
SB	Left Turn	41	118	286.8%	103.6	24.3	F
	Through	339	255	75.2%	59.7	25.7	E
	Right Turn	31	23	73.5%	60.9	29.0	E
	Subtotal	411	395	96.2%	72.9	23.7	E
EB	Left Turn	85	23	26.8%	87.4	13.0	F
	Through	398	238	59.9%	36.1	11.0	D
	Right Turn	334	179	53.5%	28.6	7.9	C
	Subtotal	817	440	53.9%	35.8	8.8	D
WB	Left Turn	31	8	24.5%	55.2	30.2	E
	Through	229	245	107.1%	47.9	24.7	D
	Right Turn	212	139	65.7%	43.9	25.7	D
	Subtotal	472	392	83.1%	46.7	24.5	D
Total		2,172	1,675	77.1%	61.2	14.1	E

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	258	226	87.6%	57.0	25.2	E
	Through	348	239	68.6%	44.6	32.9	D
	Right Turn						
	Subtotal	606	465	76.7%	50.6	28.3	D
SB	Left Turn						
	Through	510	296	58.1%	30.2	16.0	C
	Right Turn	106	86	80.8%	24.8	18.0	C
	Subtotal	616	382	62.0%	28.9	16.3	C
EB	Left Turn	164	135	82.4%	33.3	14.7	C
	Through						
	Right Turn	243	235	96.6%	15.9	4.5	B
	Subtotal	407	370	90.9%	22.3	5.7	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,629	1,217	74.7%	35.0	11.7	D

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	493	379	76.9%	39.4	27.5	E
	Right Turn	91	46	50.1%	36.1	33.9	E
	Subtotal	584	425	72.7%	38.8	27.8	E
SB	Left Turn	30	15	49.3%	73.5	21.0	F
	Through	674	422	62.6%	20.8	3.6	C
	Right Turn						
	Subtotal	704	437	62.0%	22.6	3.7	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	89	76	85.8%	133.5	85.3	F
	Through						
	Right Turn	60	8	13.3%	126.9	122.1	F
	Subtotal	149	84	56.6%	133.3	89.9	F
Total		1,437	946	65.8%	38.3	9.4	E

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	87	114.7%	37.0	21.2	E
	Through	606	458	75.6%	18.7	20.9	C
	Right Turn						
	Subtotal	682	546	80.0%	21.7	19.5	C
SB	Left Turn						
	Through	680	517	76.0%	2.5	1.1	A
	Right Turn	73	41	56.4%	5.3	4.4	A
	Subtotal	753	558	74.1%	2.7	1.3	A
EB	Left Turn						
	Through						
	Right Turn	108	159	147.4%	18.8	6.2	C
	Subtotal	108	159	147.4%	18.8	6.2	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,543	1,263	81.8%	13.2	9.6	B

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	192	179	93.3%	79.3	30.9	E
	Through	344	320	93.0%	58.3	25.8	E
	Right Turn	433	275	63.6%	153.5	50.9	F
	Subtotal	969	774	79.9%	97.1	33.0	F
SB	Left Turn	108	36	33.7%	362.5	119.3	F
	Through	245	184	75.3%	40.3	10.7	D
	Right Turn	21	20	95.2%	11.2	7.9	B
	Subtotal	374	241	64.4%	90.8	31.2	F
EB	Left Turn	31	14	46.5%	160.5	120.7	F
	Through	248	114	46.0%	214.1	56.8	F
	Right Turn	161	75	46.5%	37.7	31.5	D
	Subtotal	440	203	46.2%	145.8	42.6	F
WB	Left Turn	394	242	61.4%	112.8	40.1	F
	Through	371	238	64.0%	75.2	52.7	E
	Right Turn	171	82	48.0%	32.4	25.7	C
	Subtotal	936	562	60.0%	85.3	44.4	F
Total		2,719	1,780	65.5%	95.8	20.6	F

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	22	68.8%	88.4	49.9	F
	Through	18	14	75.6%	100.9	65.3	F
	Right Turn	569	420	73.7%	93.3	45.3	F
	Subtotal	619	455	73.5%	93.0	44.7	F
SB	Left Turn	5	6	112.0%	39.5	34.5	D
	Through	15	15	101.3%	31.0	15.1	C
	Right Turn	11	10	90.9%	15.4	22.6	B
	Subtotal	31	31	99.4%	31.1	16.4	C
EB	Left Turn	16	7	42.5%	182.5	76.3	F
	Through	749	359	48.0%	201.2	12.7	F
	Right Turn	24	13	53.3%	158.9	35.8	F
	Subtotal	789	379	48.0%	199.8	12.8	F
WB	Left Turn	559	390	69.8%	234.3	26.1	F
	Through	893	540	60.4%	208.7	30.6	F
	Right Turn	33	26	80.0%	206.9	24.7	F
	Subtotal	1,485	956	64.4%	219.4	25.1	F
Total		2,924	1,821	62.3%	180.0	19.6	F

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,460	1,221	149	1,646	52	1,467	9	67%	7%
	Through/Right	250	227	29	366	34	275	0	0%	0%
SB	Left Turn	1,409	147	20	205	44	202	48	0%	0%
	Left/Through	1,409	189	24	256	46	254	49	0%	0%
	Right Turn	300	29	4	51	11	52	15	0%	0%
WB	Left Turn	1,261	167	22	231	39	228	37	0%	2%
	Through	261	56	12	97	19	100	21	0%	0%

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	225	228	5	245	7	244	7	19%	1%
	Through	261	148	59	353	116	319	118	1%	6%
NB	Left Turn	300	44	9	76	15	73	16	0%	0%
	Through/Right	1,153	90	15	137	28	138	30	0%	0%
	Right Turn	1,153	57	8	107	23	117	33	0%	0%
WB	Through	212	121	26	203	38	193	36	0%	1%
	Through/Right	212	167	17	241	21	228	12	0%	3%
	Right Turn	212	148	17	234	19	214	15	0%	1%

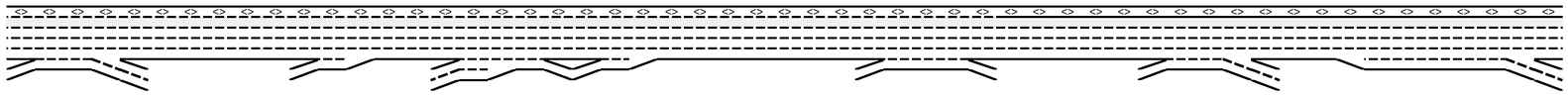
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	1,584	235	54	368	114	412	146	0%	0%
	Through	1,584	238	50	365	103	438	138	0%	0%
	Through/Right	583	295	52	407	92	422	112	0%	0%
	Right Turn	583	295	50	396	80	384	75	0%	0%
NB	Right Turn	1,062	27	10	60	21	73	36	0%	0%
NE	Shared	2,995	334	97	571	207	672	205	0%	0%
	Right Turn	2,995	3	11	17	24	24	28	0%	0%
	Right Turn	2,995	3	11	17	24	24	28	0%	0%
	Right Turns	330	128	25	202	61	233	91	0%	0%
SB	Left Turn	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%
	Left/Through	298	0	0	0	0	0	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

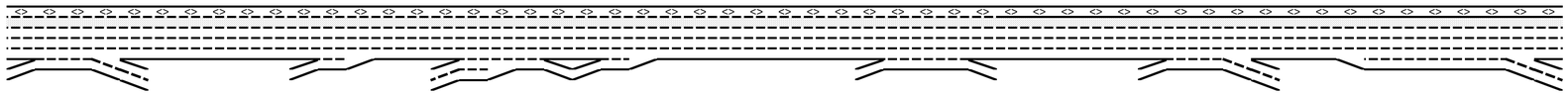
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	1,700	600	740	1,500	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	6,918	6,789	6,789	7,943	9,316	9,940	9,940	10,749	10,749	10,891	10,891
On Ramp Volume	690		1,154	1,917	624		1,731		1,018		
Off Ramp Volume	819			544			922		876		1,661
Express Lane Volume	1,314	1,154	1,154	1,350	1,397	1,392	1,392	1,397	1,397	1,416	1,416
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	5,604	5,635	5,635	6,593	7,919	8,548	8,548	9,352	9,352	9,475	9,475
PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Lanes	5	4	4	4	4	4	5	4	5	5	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	6,247	6,282	6,282	7,350	8,828	9,531	9,531	10,426	10,426	10,564	10,564
Flow (pcphpl)	1,249	1,571	1,571	1,838	2,207	2,383	1,906	2,607	2,085	2,113	2,113
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	11,750	9,400	9,400	9,400	9,400	9,400	11,750	9,400	11,750	11,750	11,750
v/c ratio	0.53	0.67	0.67	0.78	0.94	1.01	0.81	1.11	0.89	0.90	0.90
Speed (mph)	65.0	64.6	64.6	62.3	55.8	-	61.4	-	58.3	57.8	57.8
Density (pcphpl)	19.2	24.3	24.3	29.5	39.6	-	31.1	-	35.7	36.6	36.6
LOS	C	C	C	D	E	F	D	F	E	E	E
Calculate Operations for Segment GP Lanes											
Flow (pcph)	7,026		7,502	9,512	9,495		11,380		11,574		
Lanes	5	4	4	5	4	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750	9,400		11,750		11,750		
v/c ratio	0.60		0.80	0.81	1.01		0.97		0.99		
Flow Rate (pcphpl)	1,405		1,876	1,902	2,374		2,276		2,315		
Speed (mph)	65.0		61.8	61.4	-		54.1		53.1		
Density (pcphpl)	21.6		30.4	31.0	-		42.1		43.6		
LOS	C		D	D	F		E		E		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

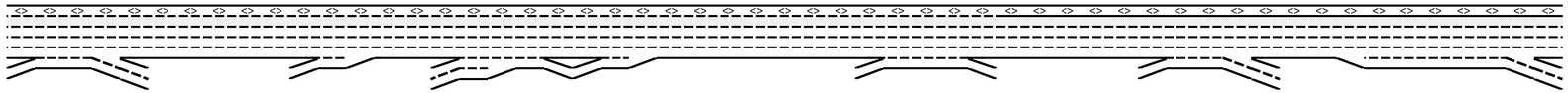
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	6,160			8,899			10,384		10,618		8,747
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.66			0.95			1.10		1.13		0.93
Flow Rate (pcphpl)	1,540			2,225			2,596		2,655		2,187
Speed (mph)	64.7			55.4			-		-		56.2
Density (pcphpl)	23.8			40.2			-		-		38.9
LOS	C			E			F		F		E

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



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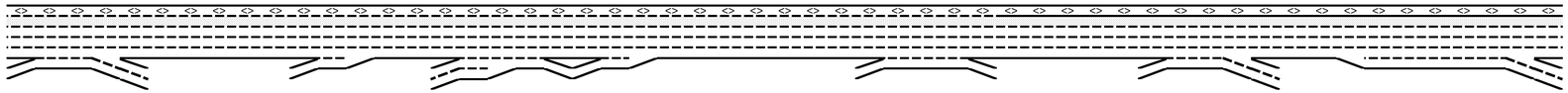
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,314	1,154	1,154	1,350	1,397	1,392	1,392	1,397	1,397	1,416	1,416
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,397	1,227	1,227	1,436	1,486	1,479	1,479	1,486	1,486	1,505	1,505
Flow Rate (pcphpl)	1,397	1,227	1,227	1,436	1,486	1,479	1,479	1,486	1,486	1,505	1,505
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.80	0.70	0.70	0.82	0.85	0.85	0.85	0.85	0.85	0.86	0.86
Calculate On Ramp Flow Rate											
Volume (vph)	690		1,154	1,917	624		1,731		1,018		
PHF	0.9		0.96	0.9	0.95		0.95		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	778		1,220	2,162	667		1,849		1,148		
Flow Rate (pcphpl)	778		1,220	1,081	667		1,849		1,148		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.37		0.58	0.51	0.32		0.88		0.55		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

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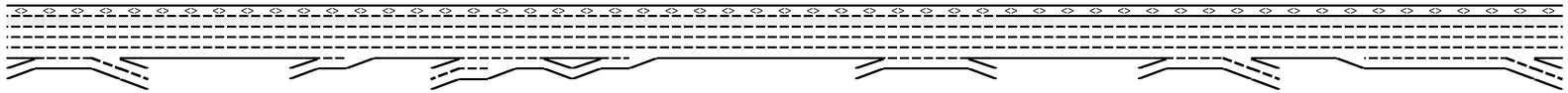
Calculate Off Ramp Flow Rate											
Volume (vph)	819			544			922		876		1,661
PHF	0.96			0.9			0.94		0.93		0.96
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	866			614			996		956		1,817
Flow Rate (pcphpl)	433			614			996		478		908
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.21			0.29			0.47		0.23		0.39
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			6,282		8,828						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.065		0.134						
v_{12} (pcph)			410		1,187						
v_3 (pcph)											
v_{34} (pcph)			5,872		7,641						
v_{12a} (pcph)			2,513		3,531						
v_{R12a} (pcph)			3,733		4,198						
Speed Index			0.45		-						
Area Speed			54.7		-						
Outer Lanes Volume			1,885								
Outer Lanes Speed			60.0								
Segment Speed			57.3								
v/c ratio			0.81		0.91						
Density			31.4		-						
LOS			D		F						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key
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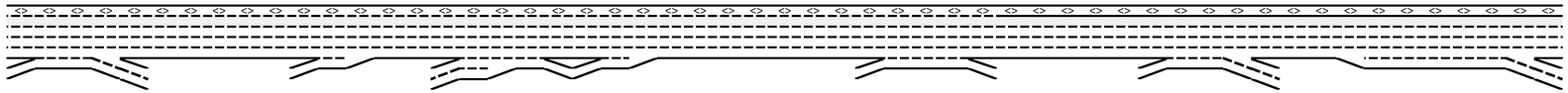
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											37.0
LOS											E
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)							1,020				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)							1,090				
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)							711				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)							760				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

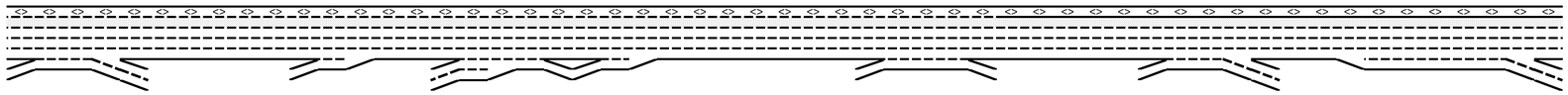
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)							-98				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)							-106				
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)							8,646				
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)							9,375				

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11



Key

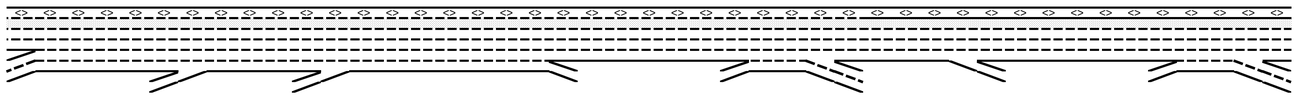
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.67	0.81		0.91	1.01		1.11		0.90	
Segment Density		24.3	31.4		-	-	-	-	-	36.6	37.0
Segment LOS		C	D		F	F	F	F	F	E	E
Over Capacity					Segment GP Lanes	Entering GP Lanes	Exiting GP Lanes	Entering GP Lanes	Exiting GP Lanes		
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

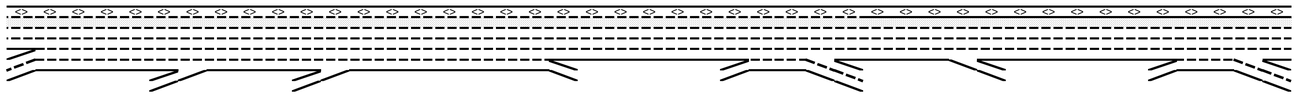
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	5,541	7,687	8,108	8,724	8,044	8,044	7,843	7,493	7,493
On Ramp Volume	2,146	421	616			860			937
Off Ramp Volume				680		1,061	350		1,335
Express Lane Volume	831	1,153	1,216	1,309	1,207	1,207	1,176	1,124	1,124
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	4,710	6,534	6,892	7,415	6,837	6,837	6,667	6,369	6,369
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Lanes	5	5	5	5	4	5	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,142	7,133	7,524	8,095	7,464	7,464	7,278	6,953	6,953
Flow (pcphpl)	1,028	1,427	1,505	1,619	1,866	1,493	1,819	1,738	1,391
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	11,750	11,750	11,750	11,750	9,400	11,750	9,400	9,400	11,750
v/c ratio	0.44	0.61	0.64	0.69	0.79	0.64	0.77	0.74	0.59
Speed (mph)	65.0	65.0	64.8	64.3	61.9	64.9	62.5	63.4	65.0
Density (pcphpl)	15.8	22.0	23.2	25.2	30.1	23.0	29.1	27.4	21.4
LOS	B	C	C	C	D	C	D	D	C
Calculate Operations for Segment GP Lanes									
Flow (pcph)	7,564	7,608	8,218			8,434			7,933
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.64	0.65	0.70			0.72			0.68
Flow Rate (pcphpl)	1,513	1,522	1,644			1,687			1,587
Speed (mph)	64.8	64.8	64.2			63.8			64.5
Density (pcphpl)	23.3	23.5	25.6			26.4			24.6
LOS	C	C	C			D			C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

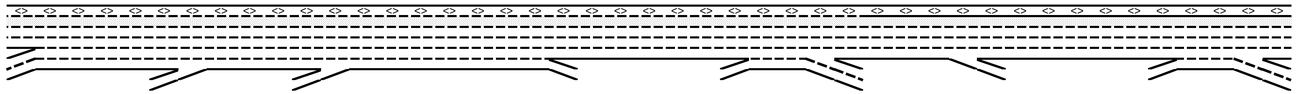
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				7,361		7,237	6,904		6,522
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.78		0.77	0.73		0.69
Flow Rate (pcphpl)				1,840		1,809	1,726		1,630
Speed (mph)				62.3		62.6	63.5		64.2
Density (pcphpl)				29.6		28.9	27.2		25.4
LOS				D		D	D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

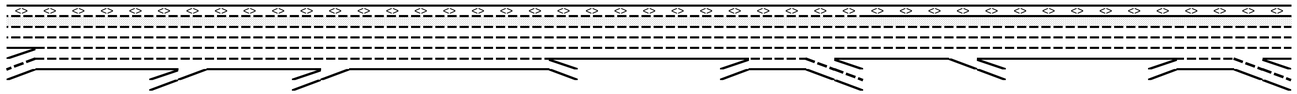
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	831	1,153	1,216	1,309	1,207	1,207	1,176	1,124	1,124
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	884	1,226	1,293	1,391	1,283	1,283	1,251	1,195	1,195
Flow Rate (pcphpl)	884	1,226	1,293	1,391	1,283	1,283	1,251	1,195	1,195
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.50	0.70	0.74	0.79	0.73	0.73	0.71	0.68	0.68
Calculate On Ramp Flow Rate									
Volume (vph)	2,146	421	616			860			937
PHF	0.93	0.9	0.9			0.9			0.97
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	2,423	475	695			970			980
Flow Rate (pcphpl)	1,211	475	695			970			980
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.53	0.23	0.33			0.46			0.47

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

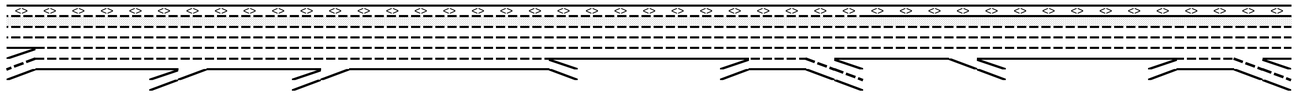
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				680		1,061	350		1,335
PHF				0.94		0.9	0.95		0.96
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				734		1,197	374		1,411
Flow Rate (pcphpl)				734		598	374		706
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.35		0.28	0.18		0.34
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		5,207	5,379						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.158	0.131						
v_{12} (pcph)		825	704						
v_3 (pcph)									
v_{34} (pcph)		4,382	4,675						
v_{12a} (pcph)		2,083	2,152						
v_{R12a} (pcph)		2,558	2,846						
Speed Index		0.36	0.36						
Area Speed		56.7	56.6						
Outer Lanes Volume		1,562	1,614						
Outer Lanes Speed		61.2	61.0						
Segment Speed		59.1	58.9						
v/c ratio		0.56	0.62						
Density		24.6	25.6						
LOS		C	C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

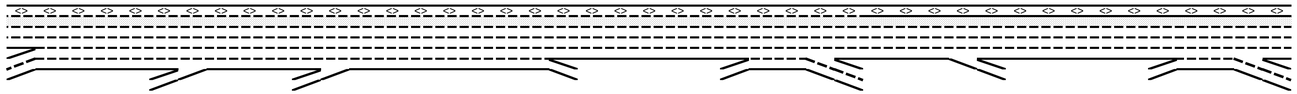
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				6,476			7,278		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.564			0.561		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				3,238			3,384		
v_3 (pcph)									
v_{34} (pcph)				3,238			3,894		
v_{12a} (pcph)				3,238			3,384		
Speed Index				0.36			0.33		
Area Speed				56.6			57.4		
Outer Lanes Volume				1,619			1,947		
Outer Lanes Speed				68.9			67.6		
Segment Speed				62.2			62.4		
v/c ratio				0.74			0.77		
Density				25.3			32.1		
LOS				C			D		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

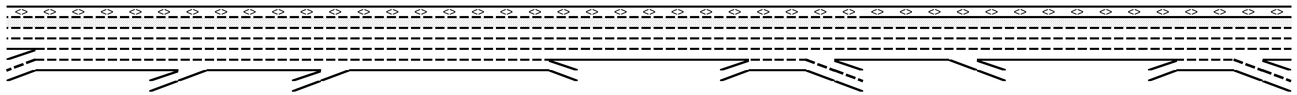
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

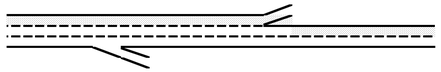
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom and Richards	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.64	0.56	0.62	0.74	0.79		0.77	0.74	
Segment Density	23.3	24.6	25.6	25.3	30.1		32.1	27.4	
Segment LOS	C	C	C	C	D		D	D	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3

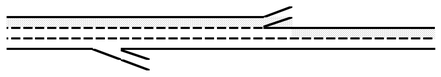


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	6,256	5,613	4,451
On Ramp Volume			
Off Ramp Volume	643	1,162	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	6,256	5,613	4,451
PHF	0.95	0.95	0.95
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	6,684	5,997	4,756
Flow (pcphpl)	2,228	1,999	2,378
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.95	0.83	0.99
Speed (mph)	55.3	62.6	53.9
Density (pcphpl)	40.3	31.9	44.1
LOS	E	D	E
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

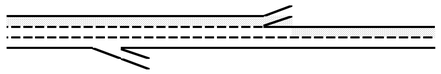


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	5,997	4,756	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.85	0.99	
Flow Rate (pcphpl)	1,999	2,378	
Speed (mph)	59.9	53.9	
Density (pcphpl)	33.4	44.1	
LOS	D	E	

Location	1	2	3



Key

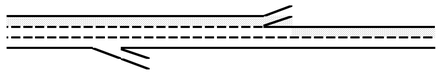
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3

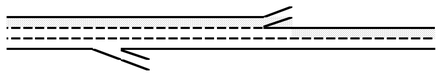


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	643	1,162	
PHF	0.95	0.95	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	687	1,242	
Flow Rate (pcphpl)	687	1,242	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.33	0.62	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		687	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

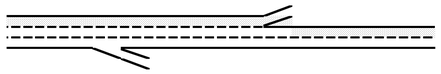


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	6,684		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.561		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.561		
v_{12} (pcph)	4,053		
v_3 (pcph)	2,631		
v_{34} (pcph)			
v_{12a} (pcph)	4,053		
Speed Index	0.36		
Area Speed	56.7		
Outer Lanes Volume	2,631		
Outer Lanes Speed	64.9		
Segment Speed	59.7		
v/c ratio	0.92		
Density	37.8		
LOS	E		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

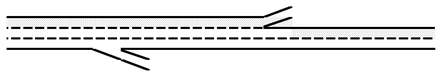


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

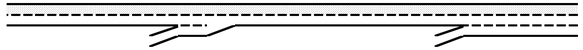
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.92	0.83	0.99
Segment Density	37.8	31.9	44.1
Segment LOS	E	D	E
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4



Key

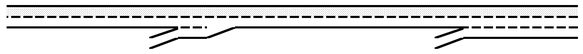
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,510	2,510	3,058	3,058
On Ramp Volume		548		419
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,510	2,510	3,058	3,058
PHF	0.98	0.98	0.98	0.98
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,600	2,600	3,167	3,167
Flow (pcphpl)	1,300	1,300	1,584	1,056
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.58	0.55	0.67	0.45
Speed (mph)	55.0	65.0	64.5	65.0
Density (pcphpl)	23.6	20.0	24.5	16.2
LOS	C	C	C	B
Operations for Segment GP Lanes				
Flow (pcph)		3,167		3,601
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.67		0.51
Flow Rate (pcphpl)		1,584		1,200
Speed (mph)		64.5		65.0
Density (pcphpl)		24.5		18.5
LOS		C		C

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4

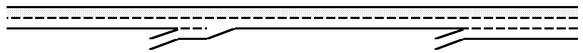


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

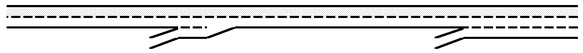


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		548		419
PHF		0.98		0.98
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		568		434
Flow Rate (pcphpl)		568		434
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.27		0.21

Location	1	2	3	4



Key

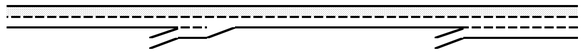
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,600		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,600		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,600		
v_{R12a} (pcph)		3,167		
Speed Index		0.35		
Area Speed		57.1		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		57.1		
v/c ratio		0.69		
Density		25.2		
LOS		C		

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4

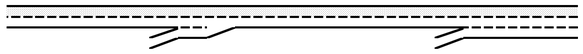


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4



Key

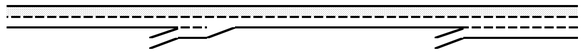
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4



Key

<> Express Lane (HOV)

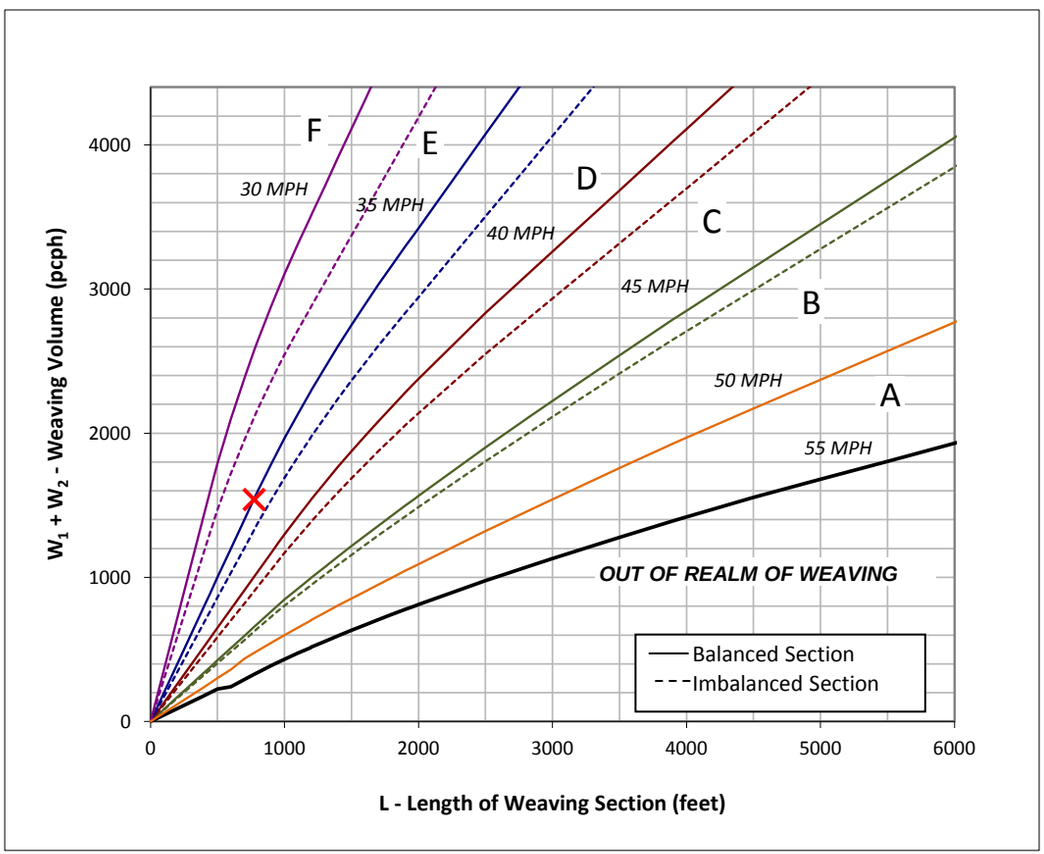
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.58	0.69	0.67	0.51
Segment Density	23.6	25.2	24.5	18.5
Segment LOS	C	C	C	C
Over Capacity				

Leisch Method for Weaving Analysis

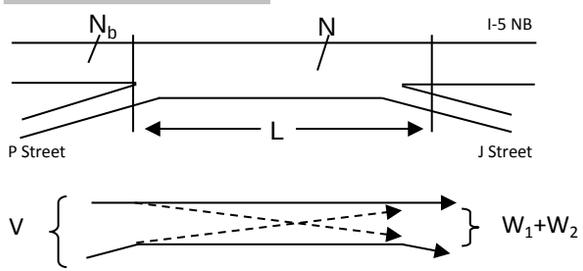
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,294	Volume (vph)*	690	Volume (vph)*	819
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,596	Volume (pcph)	704	Volume (pcph)	835



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	35.1
4. Weaving Intensity Factor (k)	2.79
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,571
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

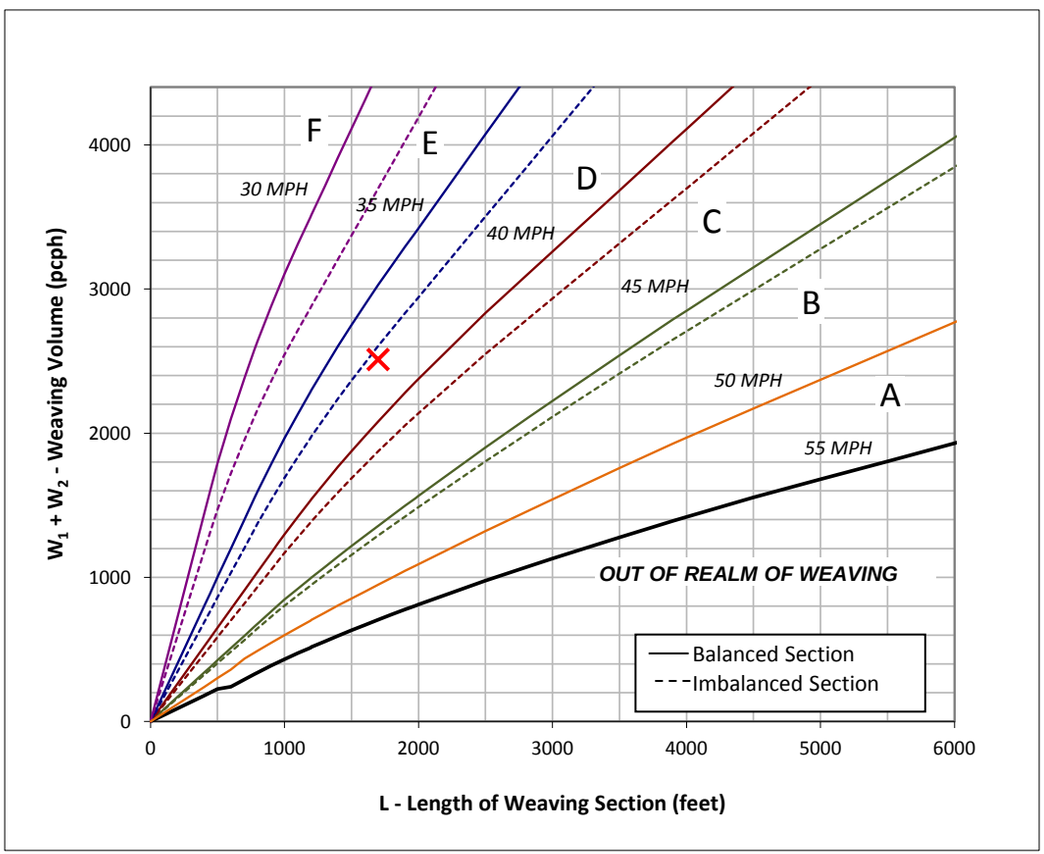
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,700

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	8,510	Volume (vph)*	1,917	Volume (vph)*	544
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,918	Volume (pcph)	1,955	Volume (pcph)	555



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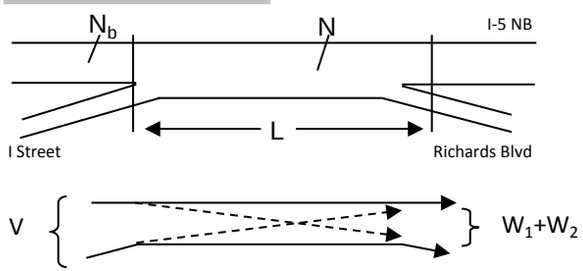


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	35.7
4. Weaving Intensity Factor (k)	2.86
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,990
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

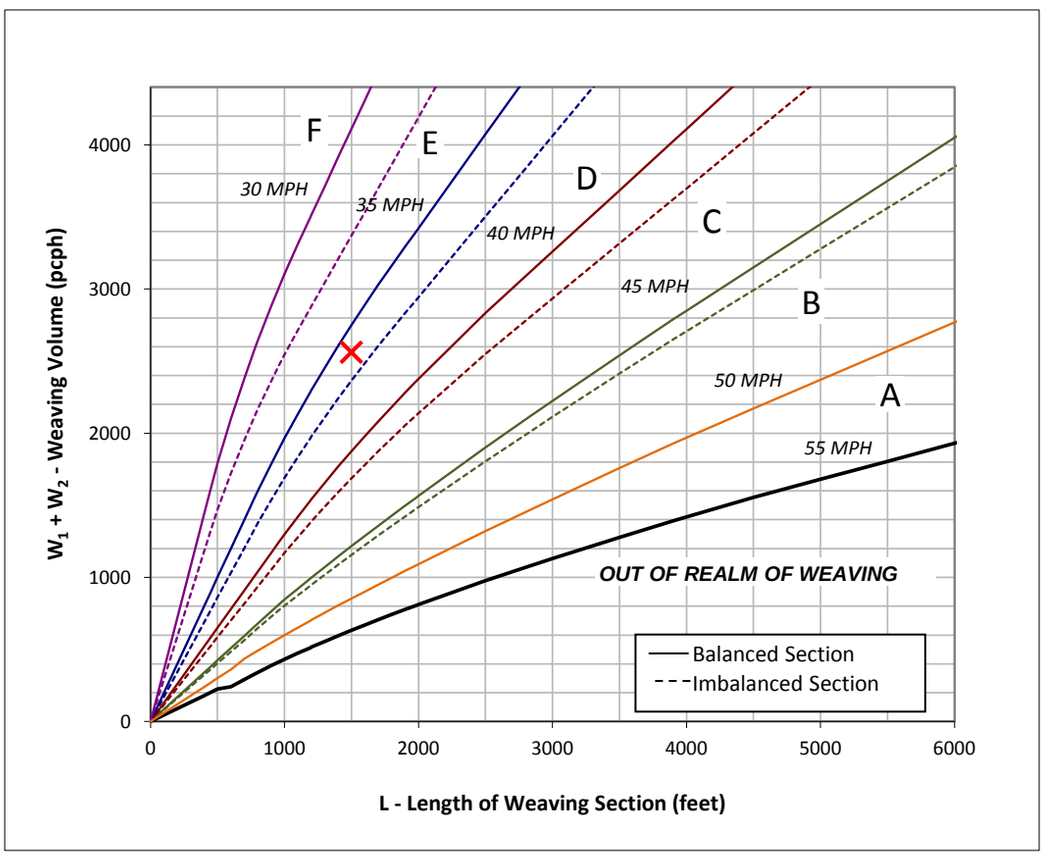
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,500

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	10,279	Volume (vph)*	1,644	Volume (vph)*	867
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,772	Volume (pcph)	1,677	Volume (pcph)	884



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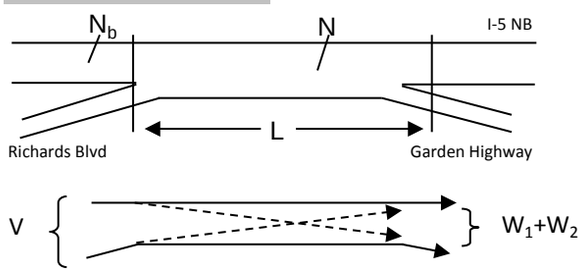


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**30 MPH** and **35 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	34.0
4. Weaving Intensity Factor (k)	2.83
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,479
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

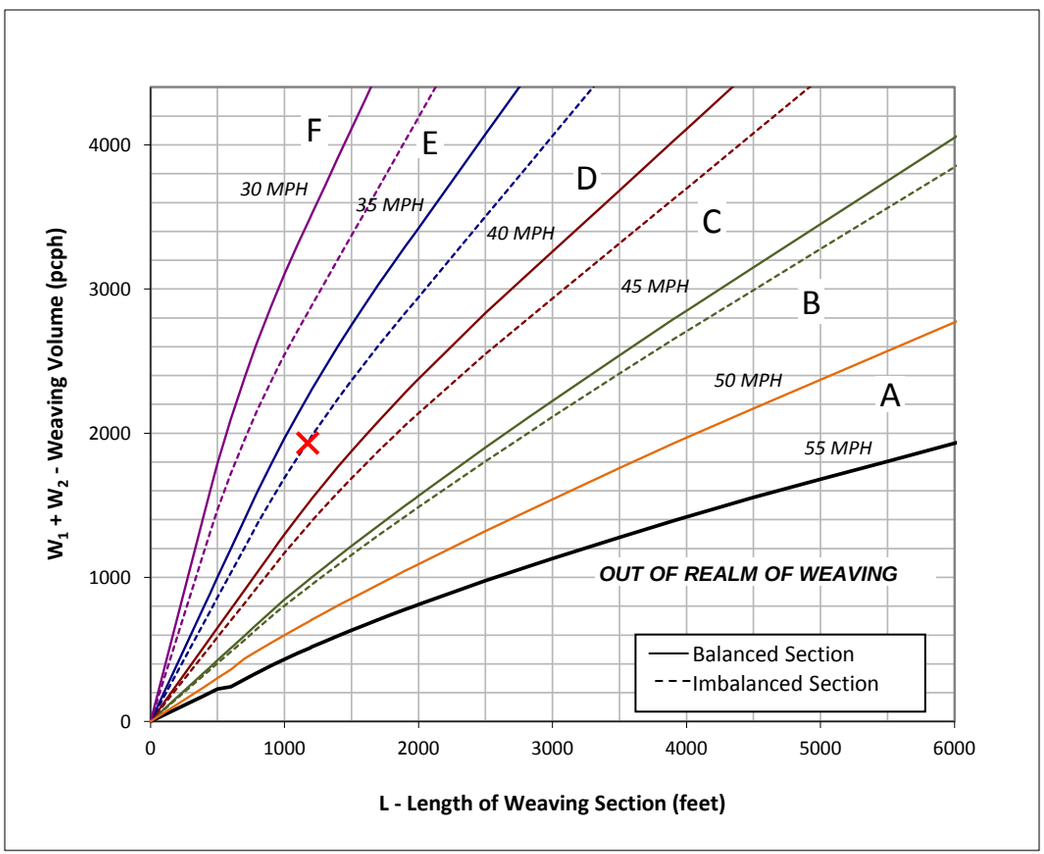
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	10,370	Volume (vph)*	1,018	Volume (vph)*	876
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	10,868	Volume (pcph)	1,038	Volume (pcph)	894



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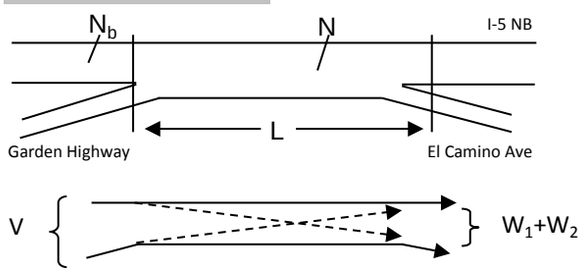


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**35 MPH** and **40 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	37.2
4. Weaving Intensity Factor (k)	2.69
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	2,475
6. Level of Service (LOS)	F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

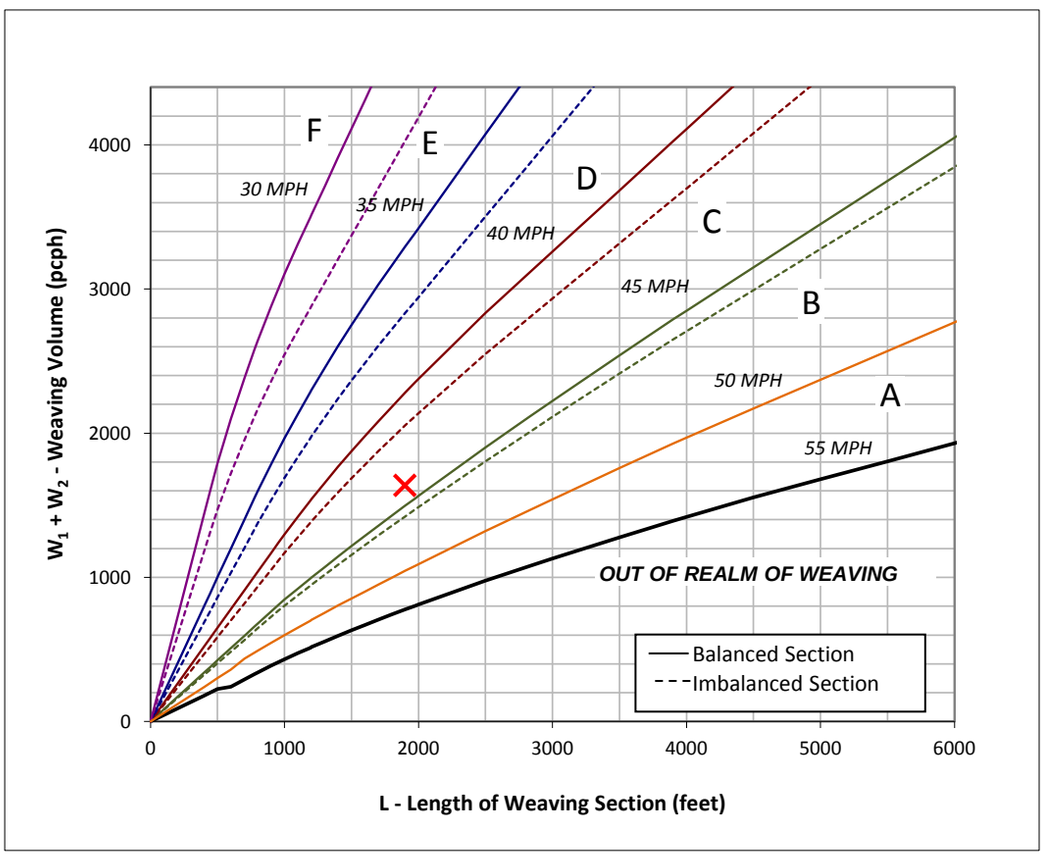
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,716	Volume (vph)*	757	Volume (vph)*	849
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,086	Volume (pcph)	772	Volume (pcph)	866



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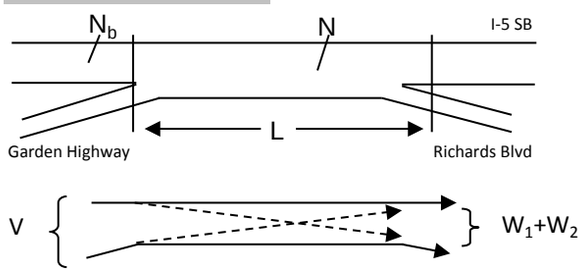


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   40 MPH and **45 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **44.1**
4. Weaving Intensity Factor (k) **2.09**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,785**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

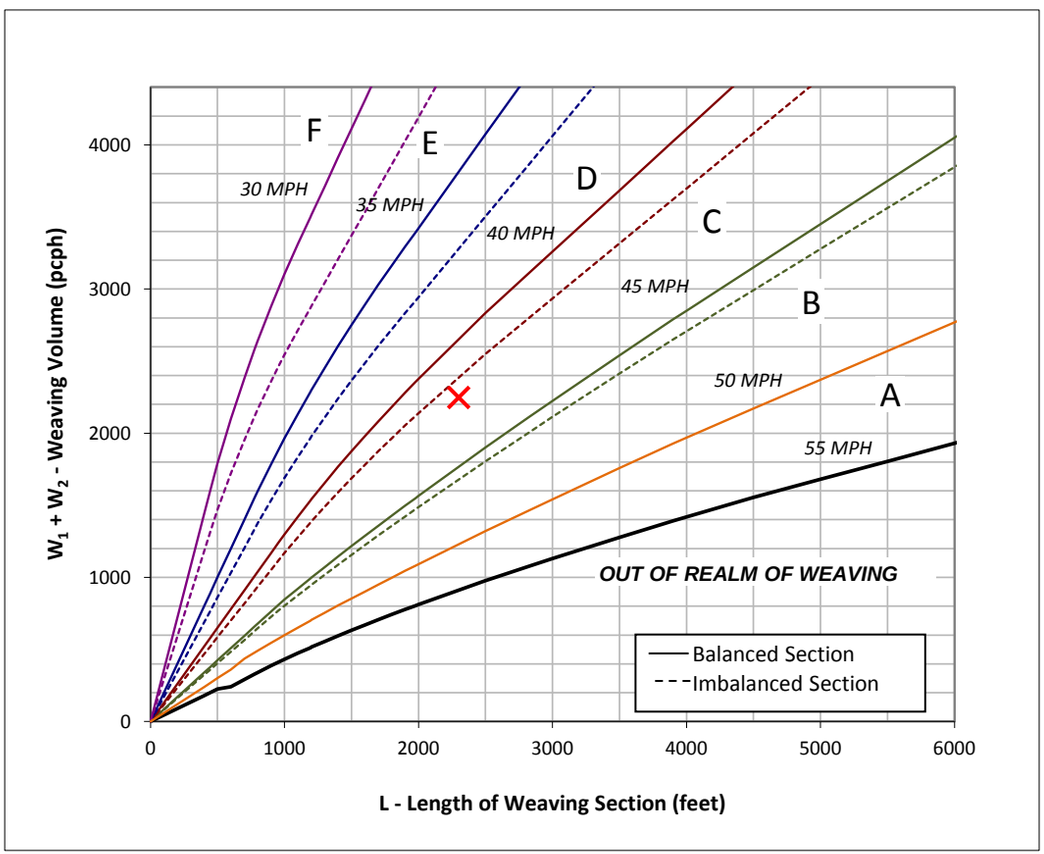
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project PM Pk Hr
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,305	Volume (vph)*	909	Volume (vph)*	1,295
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,656	Volume (pcph)	927	Volume (pcph)	1,321



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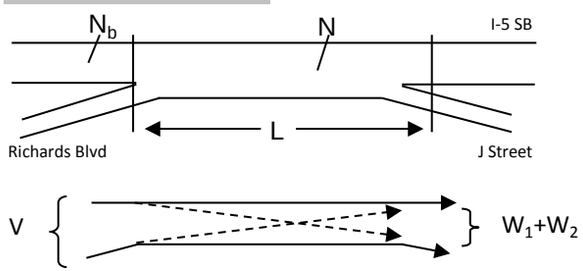


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	42.3
4. Weaving Intensity Factor (k)	2.30
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,772
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	844	882	104.5%	29.9	3.1	C
	Through	69	82	119.4%	29.4	4.4	C
	Right Turn	104	103	98.8%	6.4	0.9	A
	Subtotal	1,017	1,067	104.9%	27.6	2.7	C
EB	Left Turn						
	Through	773	510	66.0%	223.8	13.3	F
	Right Turn	146	96	66.0%	185.5	18.7	F
	Subtotal	919	607	66.0%	217.7	13.8	F
WB	Left Turn	722	584	80.9%	11.2	1.8	B
	Through	289	265	91.8%	3.9	0.8	A
	Right Turn						
	Subtotal	1,011	850	84.0%	9.0	1.4	A
Total		2,947	2,524	85.6%	67.0	2.9	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	67	96.8%	32.0	8.1	C
	Through	10	10	104.0%	42.9	15.9	D
	Right Turn	465	462	99.4%	11.7	1.7	B
	Subtotal	544	540	99.2%	14.8	1.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	665	431	64.8%	35.9	6.7	D
	Through	952	940	98.8%	2.3	0.5	A
	Right Turn						
	Subtotal	1,617	1,372	84.8%	12.8	2.0	B
WB	Left Turn						
	Through	942	780	82.8%	12.8	1.5	B
	Right Turn	1,002	811	81.0%	8.2	0.8	A
	Subtotal	1,944	1,591	81.9%	10.5	1.1	B
Total		4,105	3,502	85.3%	12.0	1.1	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	214	205	95.7%	31.4	2.0	C
	Through	33	34	103.0%	32.9	9.2	C
	Right Turn	62	50	80.6%	6.1	1.6	A
	Subtotal	309	289	93.5%	27.3	2.3	C
SB	Left Turn	45	47	104.0%	32.0	9.8	C
	Through	61	64	104.3%	31.5	4.4	C
	Right Turn	60	56	92.7%	11.9	4.0	B
	Subtotal	166	166	100.0%	25.0	3.5	C
EB	Left Turn	24	24	100.0%	34.6	13.7	C
	Through	1,060	1,045	98.6%	16.7	3.9	B
	Right Turn	333	318	95.6%	3.1	0.2	A
	Subtotal	1,417	1,388	97.9%	13.9	3.2	B
WB	Left Turn	108	88	81.5%	65.3	7.8	E
	Through	1,670	1,353	81.0%	39.7	8.2	D
	Right Turn	20	21	104.0%	30.2	12.2	C
	Subtotal	1,798	1,462	81.3%	41.1	7.9	D
Total		3,690	3,304	89.6%	27.6	4.4	C

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	178	182	102.0%	34.5	3.4	C
	Through	26	28	109.2%	31.8	6.8	C
	Right Turn	35	34	98.3%	15.3	4.9	B
	Subtotal	239	244	102.3%	31.3	3.0	C
SB	Left Turn	90	86	95.1%	30.7	5.3	C
	Through	9	8	93.3%	29.0	21.6	C
	Right Turn	190	177	93.3%	17.8	3.5	B
	Subtotal	289	271	93.8%	22.1	2.9	C
EB	Left Turn	190	184	97.1%	41.0	9.1	D
	Through	901	884	98.1%	17.7	2.9	B
	Right Turn	76	79	103.7%	15.9	3.4	B
	Subtotal	1,167	1,147	98.3%	21.4	3.2	C
WB	Left Turn	23	23	99.1%	77.1	27.2	E
	Through	1,430	1,171	81.9%	54.9	14.9	D
	Right Turn	21	18	87.6%	50.7	27.3	D
	Subtotal	1,474	1,212	82.2%	55.4	15.2	E
Total		3,169	2,875	90.7%	36.6	7.3	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	312	287	91.9%	47.3	12.6	D
	Through	400	390	97.6%	45.4	8.1	D
	Right Turn	26	19	72.3%	35.3	15.4	D
	Subtotal	738	696	94.3%	45.8	8.4	D
SB	Left Turn	195	100	51.1%	312.2	45.1	F
	Through	447	238	53.2%	330.0	37.1	F
	Right Turn	71	37	52.4%	321.2	44.3	F
	Subtotal	713	374	52.5%	324.9	37.2	F
EB	Left Turn	41	45	110.2%	43.3	11.0	D
	Through	883	868	98.3%	19.9	1.7	B
	Right Turn	217	215	99.2%	18.7	3.1	B
	Subtotal	1,141	1,128	98.9%	20.6	1.9	C
WB	Left Turn	5	2	48.0%	47.5	54.1	D
	Through	1,193	992	83.2%	83.9	17.4	F
	Right Turn	203	164	81.0%	89.9	15.4	F
	Subtotal	1,401	1,159	82.7%	84.8	16.9	F
Total		3,993	3,358	84.1%	81.8	7.2	F

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	25	103.3%	37.4	9.5	D
	Through	153	147	95.9%	29.5	4.9	C
	Right Turn	130	128	98.2%	13.0	4.2	B
	Subtotal	307	299	97.5%	23.2	3.6	C
SB	Left Turn	5	3	64.0%	16.5	19.3	B
	Through	155	158	101.9%	24.9	2.5	C
	Right Turn	104	100	96.2%	19.0	3.2	B
	Subtotal	264	261	98.9%	22.5	1.9	C
EB	Left Turn	91	78	86.2%	24.1	5.5	C
	Through	990	863	87.2%	7.3	0.8	A
	Right Turn	23	21	90.4%	7.2	2.9	A
	Subtotal	1,104	962	87.1%	8.6	1.0	A
WB	Left Turn	140	116	82.9%	75.4	21.7	E
	Through	1,273	1,097	86.2%	56.1	33.6	E
	Right Turn	15	14	96.0%	66.1	57.7	E
	Subtotal	1,428	1,227	85.9%	58.1	32.5	E
Total		3,103	2,750	88.6%	33.4	13.9	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	288	273	94.9%	84.7	32.1	F
	Through	219	217	99.2%	60.6	15.2	E
	Right Turn	5	4	88.0%	27.0	31.8	C
	Subtotal	512	495	96.6%	74.4	21.2	E
SB	Left Turn	48	46	95.0%	83.1	15.0	F
	Through	239	232	96.9%	64.4	11.6	E
	Right Turn	42	36	85.7%	59.2	13.4	E
	Subtotal	329	313	95.2%	66.9	10.4	E
EB	Left Turn	15	13	85.3%	70.6	36.0	E
	Through	929	842	90.6%	59.8	18.8	E
	Right Turn	181	159	88.0%	65.0	24.7	E
	Subtotal	1,125	1,014	90.1%	60.7	19.7	E
WB	Left Turn	428	336	78.4%	165.7	40.5	F
	Through	1,102	1,000	90.7%	66.0	26.3	E
	Right Turn	3	5	160.0%	72.8	48.7	E
	Subtotal	1,533	1,340	87.4%	91.1	30.2	F
Total		3,499	3,162	90.4%	76.1	18.4	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	11.9	19.9	B
	Through	9	12	133.3%	19.2	11.6	B
	Right Turn	262	267	102.0%	10.8	1.5	B
	Subtotal	276	282	102.0%	11.4	1.9	B
SB	Left Turn	274	263	95.9%	30.8	2.4	C
	Through	72	64	88.9%	24.5	4.1	C
	Right Turn	136	132	96.8%	22.3	8.2	C
	Subtotal	482	458	95.1%	27.6	2.2	C
EB	Left Turn	37	30	80.0%	56.2	11.0	E
	Through	865	758	87.6%	32.2	5.2	C
	Right Turn	58	51	88.3%	20.3	6.6	C
	Subtotal	960	838	87.3%	32.3	5.4	C
WB	Left Turn	311	321	103.2%	51.1	12.2	D
	Through	1,336	1,250	93.6%	30.0	20.3	C
	Right Turn	25	27	108.8%	25.0	16.4	C
	Subtotal	1,672	1,598	95.6%	34.2	18.2	C
Total		3,390	3,177	93.7%	30.5	8.4	C

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	32	84.2%	29.9	9.8	C
	Through	5	4	80.0%	33.8	29.0	C
	Right Turn	15	19	128.0%	15.1	10.7	B
	Subtotal	58	55	95.2%	25.6	9.2	C
SB	Left Turn	44	45	101.8%	32.9	7.5	C
	Through	5	5	104.0%	37.7	26.6	D
	Right Turn	58	58	100.7%	19.2	3.6	B
	Subtotal	107	108	101.3%	25.5	3.9	C
EB	Left Turn	24	18	73.3%	29.1	19.3	C
	Through	1,333	1,248	93.6%	9.6	3.2	A
	Right Turn	44	38	85.5%	10.6	5.5	B
	Subtotal	1,401	1,303	93.0%	9.9	3.3	A
WB	Left Turn	45	45	99.6%	41.7	9.6	D
	Through	1,576	1,514	96.1%	17.1	5.7	B
	Right Turn	24	20	81.7%	15.0	10.1	B
	Subtotal	1,645	1,579	96.0%	17.8	5.6	B
Total		3,211	3,046	94.8%	14.9	2.9	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	25	23	92.8%	5.7	1.0	A
	Right Turn	49	52	105.3%	3.5	0.4	A
	Subtotal	74	75	101.1%	4.3	0.5	A
SB	Left Turn	77	68	88.3%	5.3	0.3	A
	Through	376	350	93.1%	5.4	0.3	A
	Right Turn						
	Subtotal	453	418	92.3%	5.4	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	55	90.5%	12.0	2.4	B
	Through						
	Right Turn	297	278	93.7%	6.6	0.7	A
	Subtotal	358	334	93.2%	7.5	0.8	A
Total		885	826	93.4%	6.1	0.4	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	350	327	93.4%	63.2	48.5	F
	Through	576	544	94.4%	70.2	44.6	F
	Right Turn	2	2	80.0%	26.6	41.5	D
	Subtotal	928	872	94.0%	67.6	46.0	F
SB	Left Turn	177	119	67.3%	10.3	1.6	B
	Through	479	337	70.4%	15.0	1.4	B
	Right Turn	13	8	58.5%	7.8	6.9	A
	Subtotal	669	464	69.4%	13.7	1.2	B
EB	Left Turn	12	10	83.3%	10.8	5.7	B
	Through	55	53	96.0%	10.4	1.4	B
	Right Turn	118	119	101.0%	6.5	0.6	A
	Subtotal	185	182	98.4%	7.9	0.8	A
WB	Left Turn	2	1	60.0%	2.4	3.9	A
	Through	53	52	97.4%	11.0	2.7	B
	Right Turn	150	144	96.0%	10.1	2.5	B
	Subtotal	205	197	96.0%	10.5	2.1	B
Total		1,987	1,715	86.3%	40.1	22.7	E

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	294	298	101.2%	20.1	2.4	C
	Right Turn	9	11	124.4%	12.8	6.2	B
	Subtotal	303	309	101.9%	19.9	2.3	B
SB	Left Turn	328	320	97.4%	19.9	3.1	B
	Through	224	222	98.9%	6.2	1.7	A
	Right Turn						
	Subtotal	552	541	98.0%	14.4	2.1	B
EB	Left Turn	1	1	80.0%	0.3	0.6	A
	Through	1	0	40.0%	3.6	11.4	A
	Right Turn	2	2	80.0%	0.9	1.9	A
	Subtotal	4	3	70.0%	4.5	11.2	A
WB	Left Turn	14	12	85.7%	13.4	11.9	B
	Through	2	3	140.0%	10.5	11.2	B
	Right Turn	435	438	100.6%	11.2	1.6	B
	Subtotal	451	452	100.3%	11.4	1.6	B
Total		1,310	1,305	99.6%	14.6	1.5	B

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	101	101	99.8%	8.4	1.6	A
	Through	69	79	114.8%	6.9	0.8	A
	Right Turn	22	24	109.1%	3.8	0.8	A
	Subtotal	192	204	106.3%	7.3	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	77	71	92.5%	11.9	2.2	B
	Through	249	236	94.8%	11.7	1.5	B
	Right Turn						
	Subtotal	326	307	94.2%	11.7	1.7	B
WB	Left Turn						
	Through	358	358	99.9%	9.1	1.4	A
	Right Turn	3	3	93.3%	2.4	3.7	A
	Subtotal	361	360	99.8%	9.0	1.4	A
Total		879	872	99.2%	9.6	1.0	A

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	155	149	96.3%	13.8	1.4	B
	Right Turn						
	Subtotal	155	149	96.3%	13.8	1.4	B
SB	Left Turn						
	Through	292	279	95.5%	13.7	2.3	B
	Right Turn	4	5	130.0%	15.9	27.4	B
	Subtotal	296	284	95.9%	13.6	2.3	B
EB	Left Turn	73	69	94.8%	21.1	3.4	C
	Through						
	Right Turn	298	299	100.4%	14.2	2.0	B
	Subtotal	371	368	99.3%	15.5	2.1	B
WB	Left Turn	70	59	84.0%	22.7	5.0	C
	Through	584	554	94.9%	19.3	4.4	B
	Right Turn	228	243	106.5%	11.1	2.5	B
	Subtotal	882	856	97.1%	17.2	3.7	B
Total		1,704	1,658	97.3%	15.9	1.9	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	9	88.0%	32.8	25.1	C
	Through	601	536	89.3%	16.1	4.3	B
	Right Turn	118	104	87.8%	4.3	1.7	A
	Subtotal	729	649	89.0%	14.7	3.6	B
SB	Left Turn	21	20	97.1%	58.3	17.4	E
	Through	534	508	95.1%	43.1	15.3	D
	Right Turn	5	4	80.0%	29.8	31.1	C
	Subtotal	560	532	95.0%	43.8	14.9	D
EB	Left Turn	5	6	112.0%	18.9	21.4	B
	Through	17	14	80.0%	20.9	14.1	C
	Right Turn	5	5	104.0%	19.7	23.1	B
	Subtotal	27	24	90.4%	20.5	6.8	C
WB	Left Turn	136	114	83.8%	149.5	81.1	F
	Through	1	3	280.0%	62.2	117.8	E
	Right Turn	15	16	104.0%	151.1	109.2	F
	Subtotal	152	132	87.1%	148.1	83.4	F
Total		1,468	1,338	91.1%	38.7	14.7	D

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	237	231	97.4%	24.5	1.3	C
	Right Turn	270	258	95.6%	21.2	9.1	C
	Subtotal	507	489	96.4%	22.8	5.2	C
SB	Left Turn	35	33	94.9%	17.8	7.6	B
	Through	232	217	93.6%	9.9	6.0	A
	Right Turn	21	32	152.4%	12.4	11.4	B
	Subtotal	288	282	98.1%	11.4	6.5	B
EB	Left Turn	41	40	98.5%	39.3	9.2	D
	Through	90	84	92.9%	40.6	13.4	D
	Right Turn	25	20	80.0%	26.1	15.2	C
	Subtotal	156	144	92.3%	38.8	10.8	D
WB	Left Turn	28	22	80.0%	75.0	54.8	E
	Through	131	124	95.0%	64.6	46.8	E
	Right Turn	50	44	88.8%	50.8	44.2	D
	Subtotal	209	191	91.5%	62.6	47.1	E
Total		1,160	1,106	95.4%	28.6	8.9	C

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	208	219	105.2%	12.0	1.4	B
	Through	300	275	91.7%	9.8	1.2	A
	Right Turn	29	28	95.2%	9.8	10.7	A
	Subtotal	537	522	97.1%	10.7	1.2	B
EB	Left Turn	200	187	93.4%	49.2	17.9	D
	Through	151	142	94.3%	50.2	19.4	D
	Right Turn	44	41	92.7%	39.5	14.7	D
	Subtotal	395	370	93.7%	48.6	17.6	D
WB	Left Turn	70	70	100.6%	35.7	11.2	D
	Through	180	178	99.1%	36.3	14.6	D
	Right Turn	80	88	110.0%	32.0	10.9	C
	Subtotal	330	337	102.1%	35.1	13.1	D
Total		1,262	1,228	97.3%	28.7	5.8	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	144	142	98.6%	11.7	10.0	B
	Through	398	403	101.3%	11.0	1.8	B
	Right Turn	172	169	98.1%	11.9	2.5	B
	Subtotal	714	714	100.0%	11.3	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	19	20	103.2%	17.6	4.0	B
	Through	255	256	100.5%	11.1	1.2	B
	Right Turn						
	Subtotal	274	276	100.7%	11.5	1.3	B
WB	Left Turn						
	Through	308	309	100.4%	15.4	9.0	B
	Right Turn	4	4	110.0%	7.4	12.6	A
	Subtotal	312	314	100.5%	15.4	9.0	B
Total		1,300	1,304	100.3%	12.3	2.9	B

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	492	401	81.5%	146.7	19.3	F
	Through	642	567	88.3%	17.2	2.7	B
	Right Turn						
	Subtotal	1,134	968	85.3%	70.9	8.7	E
SB	Left Turn						
	Through						
	Right Turn	790	733	92.8%	36.9	5.2	D
	Subtotal	790	733	92.8%	36.9	5.2	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,106	1,093	98.8%	7.0	1.1	A
	Right Turn	45	42	93.3%	4.1	2.7	A
	Subtotal	1,151	1,135	98.6%	6.9	1.1	A
Total		3,075	2,836	92.2%	36.4	2.6	D

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	22	97.4%	27.1	10.1	C
	Through	486	478	98.3%	31.3	5.5	C
	Right Turn						
	Subtotal	509	500	98.2%	31.2	5.4	C
SB	Left Turn						
	Through	174	165	94.9%	41.6	3.3	D
	Right Turn	111	97	87.2%	14.5	1.3	B
	Subtotal	285	262	91.9%	31.6	2.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	8	8	100.0%	30.2	26.8	C
	Through	1,017	1,014	99.7%	28.3	1.7	C
	Right Turn	21	15	72.4%	23.6	17.6	C
	Subtotal	1,046	1,038	99.2%	28.2	1.8	C
Total		1,840	1,800	97.8%	29.6	1.9	C

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	390	364	93.3%	17.1	2.1	B
	Right Turn	24	17	70.0%	7.7	3.8	A
	Subtotal	414	381	92.0%	16.7	2.0	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	142	135	94.9%	9.7	2.9	A
	Through	1,022	1,016	99.4%	12.8	0.8	B
	Right Turn						
	Subtotal	1,164	1,150	98.8%	12.4	0.9	B
Total		1,578	1,531	97.0%	13.5	0.4	B

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	190	176	92.4%	14.7	3.8	B
	Through	625	646	103.4%	23.1	2.2	C
	Right Turn						
	Subtotal	815	822	100.8%	21.4	2.1	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	974	968	99.4%	11.5	0.9	B
	Right Turn	89	85	95.3%	11.4	3.6	B
	Subtotal	1,063	1,053	99.0%	11.4	0.9	B
Total		1,878	1,874	99.8%	15.8	1.0	B

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	3	64.0%	97.3	72.4	F
	Through	1,120	1,034	92.3%	92.9	36.0	F
	Right Turn	21	22	104.8%	51.0	30.5	D
	Subtotal	1,146	1,059	92.4%	92.2	36.0	F
SB	Left Turn	255	238	93.3%	57.6	13.3	E
	Through	189	169	89.3%	60.7	16.2	E
	Right Turn						
	Subtotal	444	407	91.6%	58.9	14.0	E
EB	Left Turn	5	6	112.0%	10.5	13.0	B
	Through	445	424	95.4%	42.7	9.3	D
	Right Turn	162	145	89.6%	36.3	4.7	D
	Subtotal	612	575	94.0%	41.0	6.7	D
NB	Left Turn						
	Through						
	Right Turn	77	74	96.6%	8.7	2.7	A
	Subtotal	77	74	96.6%	8.7	2.7	A
Total		2,279	2,115	92.8%	68.3	18.5	E

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	353	331	93.8%	18.4	3.4	B
	Right Turn	325	315	96.9%	8.0	1.0	A
	Subtotal	678	646	95.3%	13.4	2.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	781	652	83.5%	55.0	25.7	D
	Through	1,059	987	93.2%	18.1	5.4	B
	Right Turn	57	54	95.4%	14.8	5.0	B
	Subtotal	1,897	1,694	89.3%	31.8	12.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,575	2,340	90.9%	26.6	8.7	C

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	531	499	94.0%	5.3	0.5	A
	Right Turn						
	Subtotal	532	499	93.8%	5.3	0.5	A
EB	Left Turn						
	Through	912	845	92.7%	7.8	0.7	A
	Right Turn	265	259	97.8%	6.4	1.2	A
	Subtotal	1,177	1,104	93.8%	7.5	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,709	1,604	93.8%	6.8	0.5	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	568	502	88.5%	6.3	2.9	A
	Right Turn	38	38	101.1%	4.9	6.0	A
	Subtotal	606	541	89.2%	6.2	3.0	A
SB	Left Turn	180	178	98.7%	44.7	12.1	D
	Through	420	420	100.1%	23.4	18.3	C
	Right Turn						
	Subtotal	600	598	99.7%	29.8	16.1	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	140	124	88.9%	73.3	48.4	E
	Through						
	Right Turn	150	134	89.6%	29.8	14.4	C
	Subtotal	290	259	89.2%	51.2	31.6	D
Total		1,496	1,398	93.4%	24.3	10.9	C

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	37	32	87.6%	12.1	6.0	B
	Through	230	216	94.1%	8.4	1.2	A
	Right Turn	62	66	107.1%	4.9	1.5	A
	Subtotal	329	315	95.8%	7.9	1.0	A
SB	Left Turn	146	141	96.7%	22.2	2.1	C
	Through	204	210	103.1%	12.2	2.4	B
	Right Turn	10	10	104.0%	10.7	12.8	B
	Subtotal	360	362	100.6%	16.1	1.8	B
EB	Left Turn						
	Through	163	168	102.8%	8.4	1.9	A
	Right Turn	55	48	88.0%	3.8	1.7	A
	Subtotal	218	216	99.1%	7.3	1.6	A
WB	Left Turn	44	40	90.9%	32.3	9.2	C
	Through	243	232	95.3%	39.3	11.6	D
	Right Turn	301	276	91.7%	30.1	8.1	C
	Subtotal	588	548	93.1%	34.3	9.5	C
Total		1,495	1,441	96.4%	19.7	3.4	B

Intersection 36 **5th St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	22.7	22.3	C
	Through	592	581	98.1%	25.2	3.4	C
	Right Turn	55	54	98.9%	5.8	1.6	A
	Subtotal	652	638	97.9%	23.6	3.2	C
SB	Left Turn	75	80	106.1%	40.3	6.8	D
	Through	284	307	108.0%	15.7	2.1	B
	Right Turn	306	303	99.0%	10.1	2.7	B
	Subtotal	665	689	103.6%	16.2	2.3	B
EB	Left Turn	341	333	97.7%	34.5	2.8	C
	Through	49	57	115.9%	19.6	7.3	B
	Right Turn	5	2	48.0%	5.2	11.0	A
	Subtotal	395	392	99.3%	32.1	2.6	C
WB	Left Turn	63	64	102.2%	43.2	7.2	D
	Through	116	105	90.7%	27.1	5.1	C
	Right Turn	82	81	98.5%	9.8	2.4	A
	Subtotal	261	250	95.9%	25.9	1.7	C
Total		1,973	1,970	99.8%	23.0	2.0	C

Intersection 37 **3rd St-Riverfront St/Tower Bridge Gateway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	5	80.0%	17.6	17.9	B
	Through	367	376	102.3%	21.1	3.9	C
	Right Turn	40	51	128.0%	11.1	4.6	B
	Subtotal	413	432	104.5%	19.8	4.0	B
SB	Left Turn	40	39	98.0%	22.3	6.2	C
	Through	104	98	94.2%	27.1	3.9	C
	Right Turn	16	14	85.0%	4.4	3.5	A
	Subtotal	160	151	94.3%	23.8	3.5	C
EB	Left Turn	20	23	114.0%	34.5	11.9	C
	Through	157	169	107.8%	17.2	4.3	B
	Right Turn	2	2	100.0%	1.8	3.0	A
	Subtotal	179	194	108.4%	19.2	4.0	B
WB	Left Turn	17	19	112.9%	29.8	15.3	C
	Through	239	229	95.9%	18.4	3.3	B
	Right Turn	44	44	100.9%	10.9	4.8	B
	Subtotal	300	293	97.6%	18.1	3.7	B
Total		1,052	1,069	101.6%	19.8	2.9	B

Intersection 17 **12th St/E St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	69	72	103.8%	7.1	1.3	A
	Through	642	655	102.0%	5.4	0.7	A
	Right Turn	10	9	92.0%	1.8	1.9	A
	Subtotal	721	736	102.0%	5.5	0.7	A
EB	Left Turn						
	Through	109	122	111.6%	15.9	1.9	B
	Right Turn	8	8	105.0%	6.9	8.0	A
	Subtotal	117	130	111.1%	15.5	1.8	B
WB	Left Turn	24	22	91.7%	22.5	9.3	C
	Through	96	92	96.3%	14.7	3.0	B
	Right Turn						
	Subtotal	120	114	95.3%	16.0	3.1	B
Total		958	980	102.3%	8.1	0.8	A

Intersection 20 **12th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	50	54	107.2%	10.3	3.8	B
	Through	619	629	101.6%	10.3	1.4	B
	Right Turn	5	3	64.0%	3.5	7.5	A
	Subtotal	674	686	101.7%	10.2	1.4	B
EB	Left Turn						
	Through	126	129	102.5%	12.5	2.0	B
	Right Turn	147	163	110.7%	7.2	1.2	A
	Subtotal	273	292	107.0%	9.6	1.4	A
WB	Left Turn	7	4	57.1%	11.4	10.4	B
	Through	340	342	100.6%	15.0	1.3	B
	Right Turn						
	Subtotal	347	346	99.7%	15.0	1.3	B
Total		1,294	1,324	102.3%	11.3	0.8	B

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	22	78.6%	44.1	9.8	D
	Through	314	273	86.9%	29.7	2.3	C
	Right Turn	182	167	91.9%	26.8	1.9	C
	Subtotal	524	462	88.2%	29.2	2.0	C
SB	Left Turn	136	137	100.6%	57.0	15.9	E
	Through	226	218	96.5%	17.0	3.5	B
	Right Turn	11	10	87.3%	9.5	9.8	A
	Subtotal	373	364	97.7%	32.4	7.5	C
EB	Left Turn	29	28	95.2%	68.9	15.9	E
	Through	366	357	97.5%	51.4	13.9	D
	Right Turn	5	4	88.0%	28.3	30.5	C
	Subtotal	400	389	97.2%	52.6	13.4	D
WB	Left Turn	335	310	92.7%	51.0	10.0	D
	Through	332	332	99.9%	30.3	8.7	C
	Right Turn	71	68	96.3%	31.7	9.9	C
	Subtotal	738	710	96.3%	39.9	6.1	D
Total		2,035	1,926	94.6%	38.7	4.0	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	25	21	84.8%	38.5	11.3	D
	Through	557	532	95.6%	16.4	1.6	B
	Right Turn	52	58	111.5%	16.3	5.1	B
	Subtotal	634	612	96.5%	17.2	2.0	B
SB	Left Turn						
	Through						
	Right Turn	13	12	95.4%	0.0	0.0	A
	Subtotal	13	12	95.4%	0.0	0.0	A
EB	Left Turn						
	Through	750	688	91.7%	39.1	8.8	D
	Right Turn	238	213	89.6%	51.5	14.8	D
	Subtotal	988	901	91.2%	42.0	10.0	D
SW	Left Turn	204	195	95.7%	15.6	1.7	B
	Through	763	810	106.2%	20.2	3.8	C
	Right Turn	453	460	101.5%	50.1	21.3	D
	Subtotal	1,420	1,465	103.2%	29.1	8.8	C
Total		3,055	2,990	97.9%	30.6	4.6	C

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	773	763	98.7%	42.5	10.8	D
	Through	757	768	101.5%	12.9	1.3	B
	Right Turn	11	16	149.1%	2.5	1.6	A
	Subtotal	1,541	1,548	100.5%	27.4	5.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	322	286	88.8%	16.4	2.4	B
	Through	12	12	100.0%	15.3	7.5	B
	Right Turn						
	Subtotal	334	298	89.2%	16.4	2.4	B
WB	Left Turn						
	Through	5	7	144.0%	7.2	6.3	A
	Right Turn	18	20	113.3%	2.3	1.3	A
	Subtotal	23	28	120.0%	3.7	1.5	A
Total		1,898	1,874	98.7%	25.3	4.6	C

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	207	184	88.7%	101.7	52.1	F
	Through	126	117	93.0%	31.3	29.6	C
	Right Turn	8	4	55.0%	14.6	18.0	B
	Subtotal	341	305	89.5%	74.0	43.5	E
SB	Left Turn	8	8	95.0%	31.3	17.4	C
	Through	119	99	83.0%	13.3	2.2	B
	Right Turn	34	32	95.3%	8.9	3.6	A
	Subtotal	161	139	86.2%	13.3	2.0	B
EB	Left Turn	24	18	75.0%	30.4	8.5	C
	Through	367	384	104.5%	16.4	2.4	B
	Right Turn	183	198	108.4%	7.1	1.6	A
	Subtotal	574	600	104.5%	13.8	2.1	B
WB	Left Turn	13	10	76.9%	32.3	20.3	C
	Through	360	356	99.0%	16.3	2.1	B
	Right Turn	1	1	80.0%	5.6	11.1	A
	Subtotal	374	367	98.2%	16.8	1.9	B
Total		1,450	1,411	97.3%	27.3	8.8	C

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	139	128	92.1%	14.0	1.9	B
	Through						
	Right Turn	101	90	88.7%	11.5	5.0	B
	Subtotal	240	218	90.7%	13.0	2.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	299	307	102.7%	29.0	21.0	C
	Right Turn	84	80	95.7%	28.0	26.8	C
	Subtotal	383	388	101.2%	28.7	22.0	C
WB	Left Turn	136	130	95.6%	30.9	5.5	C
	Through	235	234	99.4%	9.7	1.8	A
	Right Turn						
	Subtotal	371	364	98.0%	17.3	2.8	B
Total		994	969	97.5%	21.0	9.6	C

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	6	93.3%	10.9	10.9	B
	Through						
	Right Turn	65	68	104.0%	7.4	1.5	A
	Subtotal	71	73	103.1%	7.7	1.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	682	654	95.9%	15.1	2.2	B
	Right Turn	2	3	140.0%	6.3	10.7	A
	Subtotal	684	657	96.0%	15.1	2.2	B
WB	Left Turn	119	122	102.5%	33.0	6.5	C
	Through	732	700	95.6%	10.5	2.9	B
	Right Turn						
	Subtotal	851	822	96.6%	13.9	3.1	B
Total		1,606	1,552	96.6%	14.1	2.1	B

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	14	10	68.6%	41.9	17.5	D
	Through	162	164	101.5%	16.8	5.2	B
	Right Turn	305	289	94.7%	15.4	4.4	B
	Subtotal	481	463	96.2%	16.6	4.2	B
SB	Left Turn	8	8	105.0%	36.2	20.5	D
	Through	49	52	106.1%	15.2	4.5	B
	Right Turn	133	127	95.3%	9.4	1.7	A
	Subtotal	190	187	98.5%	12.3	2.1	B
EB	Left Turn	26	24	90.8%	48.2	8.4	D
	Through	675	641	94.9%	25.4	5.1	C
	Right Turn	11	10	87.3%	27.8	14.8	C
	Subtotal	712	674	94.7%	26.1	4.8	C
WB	Left Turn	211	210	99.3%	45.0	14.2	D
	Through	772	740	95.8%	15.8	1.8	B
	Right Turn	40	39	97.0%	14.0	5.2	B
	Subtotal	1,023	988	96.6%	22.2	3.9	C
Total		2,406	2,312	96.1%	21.4	2.5	C

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	390	328	84.1%	10.0	1.7	A
	Right Turn	105	96	91.8%	7.4	1.3	A
	Subtotal	495	424	85.7%	9.4	1.4	A
SB	Left Turn	21	17	81.9%	17.7	5.0	C
	Through	301	290	96.5%	6.2	1.2	A
	Right Turn						
	Subtotal	322	308	95.5%	6.9	1.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	68	66	97.1%	12.4	1.2	B
	Through						
	Right Turn	114	104	91.2%	8.0	1.2	A
	Subtotal	182	170	93.4%	9.8	0.9	A
Total		999	902	90.3%	8.6	0.9	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	85	96.8%	37.2	9.0	D
	Through	253	234	92.3%	14.4	2.5	B
	Right Turn	15	13	88.0%	11.8	11.2	B
	Subtotal	356	332	93.3%	19.9	2.0	B
SB	Left Turn	11	11	98.2%	56.1	19.1	E
	Through	284	276	97.3%	26.9	4.6	C
	Right Turn	20	16	80.0%	18.0	9.0	B
	Subtotal	315	303	96.3%	27.6	4.9	C
EB	Left Turn	76	86	113.2%	33.2	7.5	C
	Through	107	98	92.0%	37.1	2.7	D
	Right Turn	156	150	96.4%	27.8	3.4	C
	Subtotal	339	335	98.8%	31.9	3.4	C
WB	Left Turn	41	38	91.7%	29.7	8.9	C
	Through	46	46	100.9%	27.7	9.0	C
	Right Turn	16	17	105.0%	16.0	9.4	B
	Subtotal	103	101	97.9%	26.7	5.7	C
Total		1,113	1,071	96.2%	26.4	2.0	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	5.2	3.2	A
	Through	5	6	120.0%	5.2	2.7	A
	Right Turn	16	11	70.0%	3.6	0.9	A
	Subtotal	26	23	87.7%	4.8	0.9	A
SB	Left Turn	8	10	120.0%	4.4	2.8	A
	Through	5	3	64.0%	4.3	4.2	A
	Right Turn	22	19	85.5%	3.4	1.1	A
	Subtotal	35	32	90.3%	4.3	1.1	A
EB	Left Turn	10	10	96.0%	3.4	1.0	A
	Through	112	97	86.4%	2.2	0.5	A
	Right Turn	11	14	130.9%	2.2	1.4	A
	Subtotal	133	121	90.8%	2.3	0.5	A
WB	Left Turn	8	8	95.0%	3.6	2.4	A
	Through	76	76	100.5%	2.1	0.3	A
	Right Turn	8	9	115.0%	1.4	0.8	A
	Subtotal	92	93	101.3%	2.2	0.2	A
Total		286	268	93.8%	2.7	0.3	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	8	93.3%	9.5	5.4	A
	Through	124	104	83.9%	12.9	3.1	B
	Right Turn	120	105	87.7%	9.3	2.1	A
	Subtotal	253	218	86.0%	11.1	2.5	B
SB	Left Turn	16	14	87.5%	8.7	3.6	A
	Through	184	184	100.2%	12.8	2.4	B
	Right Turn	20	13	66.0%	9.7	7.8	A
	Subtotal	220	212	96.2%	12.3	2.5	B
EB	Left Turn	43	39	90.2%	11.1	2.8	B
	Through	67	54	80.6%	12.1	3.1	B
	Right Turn	26	26	100.0%	9.9	3.3	A
	Subtotal	136	119	87.4%	11.3	2.3	B
WB	Left Turn	199	183	92.1%	11.7	3.6	B
	Through	63	69	109.8%	13.5	5.2	B
	Right Turn	69	71	103.2%	10.4	3.9	B
	Subtotal	331	324	97.8%	11.8	3.8	B
Total		940	872	92.7%	11.7	2.5	B

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	87	76	87.8%	29.6	10.7	C
	Through	401	363	90.5%	13.0	1.1	B
	Right Turn						
	Subtotal	488	439	90.0%	15.7	1.8	B
SB	Left Turn						
	Through	271	244	90.2%	11.9	1.8	B
	Right Turn	244	247	101.1%	11.4	1.5	B
	Subtotal	515	491	95.4%	11.6	0.9	B
EB	Left Turn	196	164	83.9%	16.9	2.0	B
	Through						
	Right Turn	7	6	85.7%	7.4	8.6	A
	Subtotal	203	170	83.9%	16.6	2.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,206	1,101	91.3%	14.0	0.9	B

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	398	57	14.3%	480.1	38.4	F
	Through						
	Right Turn	41	6	15.6%	430.1	52.4	F
	Subtotal	439	63	14.4%	474.3	37.0	F
EB	Left Turn						
	Through	892	797	89.3%	108.2	43.4	F
	Right Turn						
	Subtotal	892	797	89.3%	108.2	43.4	F
WB	Left Turn						
	Through	835	774	92.7%	5.0	0.6	A
	Right Turn	242	223	92.2%	3.0	0.5	A
	Subtotal	1,077	998	92.6%	4.5	0.5	A
Total		2,408	1,858	77.1%	64.6	18.8	E

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	66	63	95.2%	50.2	19.5	D
	Through	38	40	105.3%	13.5	6.1	B
	Right Turn						
	Subtotal	104	103	98.8%	35.9	14.0	D
SB	Left Turn	1	0	0.0%	2.4	1.6	A
	Through	192	174	90.8%	34.9	5.9	C
	Right Turn	133	131	98.3%	28.9	8.2	C
	Subtotal	326	305	93.6%	32.3	6.7	C
EB	Left Turn	251	162	64.4%	42.8	5.0	D
	Through	621	422	67.9%	42.4	4.0	D
	Right Turn	418	270	64.6%	35.6	3.5	D
	Subtotal	1,290	853	66.1%	40.3	2.7	D
WB	Left Turn	87	83	95.2%	54.4	11.8	D
	Through	811	762	93.9%	22.3	6.3	C
	Right Turn	113	99	87.8%	14.9	4.4	B
	Subtotal	1,011	944	93.3%	24.4	6.2	C
Total		2,731	2,205	80.7%	32.3	3.4	C

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	167	172	102.8%	23.4	4.8	C
	Through	1	1	120.0%	9.5	20.5	A
	Right Turn	21	24	114.3%	17.6	7.9	B
	Subtotal	189	197	104.1%	22.6	4.4	C
SB	Left Turn	59	66	112.5%	27.2	5.0	C
	Through	42	47	112.4%	30.1	6.2	C
	Right Turn	30	28	92.0%	15.5	8.1	B
	Subtotal	131	141	107.8%	25.9	3.2	C
EB	Left Turn	1	0	40.0%	9.3	17.7	A
	Through	569	386	67.9%	39.5	6.4	D
	Right Turn	50	27	54.4%	28.7	14.1	C
	Subtotal	620	414	66.8%	38.8	6.7	D
WB	Left Turn	15	12	80.0%	73.5	30.7	E
	Through	761	696	91.4%	37.3	4.4	D
	Right Turn	42	36	85.7%	29.0	6.3	C
	Subtotal	818	744	90.9%	37.6	4.4	D
Total		1,758	1,496	85.1%	34.9	3.4	C

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	157	153	97.6%	34.5	6.9	C
	Through	5	6	120.0%	22.4	24.5	C
	Right Turn	90	95	105.8%	26.9	8.0	C
	Subtotal	252	254	101.0%	31.9	7.1	C
SB	Left Turn	10	12	120.0%	27.7	8.8	C
	Through	5	6	120.0%	15.0	20.1	B
	Right Turn	5	7	136.0%	3.9	4.8	A
	Subtotal	20	25	124.0%	19.4	6.7	B
EB	Left Turn	5	2	32.0%	28.0	40.8	C
	Through	650	484	74.5%	18.0	4.0	B
	Right Turn						
	Subtotal	655	486	74.2%	18.2	4.0	B
WB	Left Turn	7	9	125.7%	72.6	24.5	E
	Through	608	536	88.2%	37.6	10.7	D
	Right Turn	10	9	92.0%	25.6	16.4	C
	Subtotal	625	554	88.7%	37.9	11.0	D
Total		1,552	1,320	85.0%	29.5	4.9	C

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	18	108.2%	46.6	9.4	D
	Through	153	156	101.7%	34.7	4.5	C
	Right Turn	66	70	106.1%	27.7	7.5	C
	Subtotal	236	244	103.4%	33.7	4.5	C
SB	Left Turn	94	98	104.3%	44.2	5.3	D
	Through	234	226	96.4%	27.6	5.4	C
	Right Turn	90	79	87.6%	22.4	7.8	C
	Subtotal	418	402	96.3%	30.5	5.2	C
EB	Left Turn	118	94	80.0%	29.7	3.1	C
	Through	574	449	78.3%	12.1	3.0	B
	Right Turn	13	12	92.3%	5.7	5.1	A
	Subtotal	705	556	78.8%	15.0	3.1	B
WB	Left Turn	153	125	81.6%	35.4	6.8	D
	Through	543	481	88.5%	25.2	4.8	C
	Right Turn	37	35	94.1%	26.0	9.3	C
	Subtotal	733	640	87.4%	27.2	5.0	C
Total		2,092	1,842	88.1%	25.2	2.3	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	22	20	90.9%	84.1	46.0	F
	Subtotal	22	20	90.9%	84.1	46.0	F
EB	Left Turn	12	10	80.0%	24.2	13.8	C
	Through	722	607	84.1%	3.3	2.9	A
	Right Turn						
	Subtotal	734	617	84.0%	3.6	3.1	A
WB	Left Turn						
	Through	711	631	88.8%	2.9	1.0	A
	Right Turn	13	10	76.9%	2.7	3.1	A
	Subtotal	724	641	88.6%	2.9	1.0	A
Total		1,480	1,278	86.4%	4.5	2.3	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	7	90.0%	28.8	27.7	C
	Through	41	42	103.4%	14.6	9.7	B
	Right Turn	195	180	92.3%	10.6	3.3	B
	Subtotal	244	230	94.1%	12.2	4.3	B
SB	Left Turn	61	57	93.8%	56.1	6.2	E
	Through	182	174	95.8%	32.4	6.1	C
	Right Turn	162	159	98.3%	28.4	7.1	C
	Subtotal	405	391	96.5%	34.3	5.8	C
EB	Left Turn	158	133	84.1%	37.8	6.9	D
	Through	555	462	83.3%	20.3	9.5	C
	Right Turn	9	11	124.4%	8.7	5.9	A
	Subtotal	722	606	84.0%	23.9	8.6	C
WB	Left Turn	205	182	89.0%	27.3	5.7	C
	Through	554	475	85.7%	22.4	3.0	C
	Right Turn	46	41	89.6%	21.0	8.9	C
	Subtotal	805	698	86.8%	23.5	3.0	C
Total		2,176	1,925	88.5%	24.4	3.0	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	355	287	80.9%	122.9	29.8	F
	Through	313	276	88.1%	30.3	10.1	C
	Right Turn	262	269	102.7%	15.4	2.5	B
	Subtotal	930	832	89.5%	57.3	12.5	E
SB	Left Turn	20	17	84.0%	50.5	22.7	D
	Through	181	162	89.3%	21.4	3.3	C
	Right Turn	77	69	89.9%	20.9	7.9	C
	Subtotal	278	248	89.1%	23.2	3.9	C
EB	Left Turn	154	136	88.6%	63.8	20.0	E
	Through	379	329	86.8%	20.1	4.3	C
	Right Turn	278	231	83.2%	8.8	2.6	A
	Subtotal	811	696	85.9%	25.1	5.9	C
WB	Left Turn	155	137	88.3%	102.8	53.4	F
	Through	373	350	93.9%	105.9	60.8	F
	Right Turn	21	19	89.5%	99.0	72.3	F
	Subtotal	549	506	92.2%	105.4	58.5	F
Total		2,568	2,282	88.9%	54.0	13.6	D

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	3	1	40.0%	5.7	5.8	A
	Through						
	Right Turn	11	12	109.1%	14.1	11.6	B
	Subtotal	14	13	94.3%	14.4	11.3	B
EB	Left Turn	6	4	60.0%	21.4	16.5	C
	Through	655	616	94.1%	12.1	1.5	B
	Right Turn						
	Subtotal	661	620	93.8%	12.2	1.5	B
WB	Left Turn						
	Through	538	508	94.5%	38.8	42.7	D
	Right Turn	5	4	72.0%	19.7	17.4	B
	Subtotal	543	512	94.3%	38.7	42.6	D
Total		1,218	1,145	94.0%	23.7	17.2	C

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	161	156	96.9%	13.5	3.5	B
	Subtotal	161	156	96.9%	13.5	3.5	B
EB	Left Turn	455	439	96.5%	37.8	12.4	D
	Through						
	Right Turn						
	Subtotal	455	439	96.5%	37.8	12.4	D
WB	Left Turn						
	Through	394	394	100.1%	32.6	14.0	C
	Right Turn						
	Subtotal	394	394	100.1%	32.6	14.0	C
Total		1,010	990	98.0%	32.0	8.1	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	1.7	2.8	A
	Through	60	60	100.7%	8.4	1.1	A
	Right Turn	40	45	112.0%	4.9	1.2	A
	Subtotal	105	108	103.2%	6.9	1.1	A
SB	Left Turn	181	132	73.1%	9.8	1.0	A
	Through	34	28	81.2%	10.9	2.4	B
	Right Turn	20	17	86.0%	6.6	1.0	A
	Subtotal	235	177	75.4%	9.6	1.0	A
EB	Left Turn	41	41	99.5%	6.8	1.7	A
	Through	68	66	96.5%	8.4	1.3	A
	Right Turn	5	4	88.0%	2.2	2.7	A
	Subtotal	114	111	97.2%	7.7	1.0	A
WB	Left Turn	74	61	82.7%	8.4	1.4	A
	Through						
	Right Turn	166	160	96.6%	6.4	1.2	A
	Subtotal	240	222	92.3%	6.9	1.2	A
Total		694	618	89.0%	7.8	0.8	A

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	60	50	83.3%	14.0	4.7	B
	Through						
	Right Turn	8	7	90.0%	6.4	4.0	A
	Subtotal	68	57	84.1%	13.1	4.6	B
EB	Left Turn	2	1	60.0%	3.4	4.6	A
	Through	328	281	85.7%	1.9	0.3	A
	Right Turn						
	Subtotal	330	282	85.6%	1.9	0.3	A
WB	Left Turn						
	Through	253	237	93.8%	4.6	0.6	A
	Right Turn	167	170	102.0%	3.7	0.5	A
	Subtotal	420	408	97.0%	4.2	0.5	A
Total		818	747	91.3%	4.1	0.7	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	3.1	3.3	A
	Through	28	25	90.0%	9.4	1.5	A
	Right Turn	4	5	130.0%	4.8	3.5	A
	Subtotal	37	33	88.6%	8.6	1.6	A
SB	Left Turn	5	4	88.0%	4.3	3.7	A
	Through	5	5	96.0%	4.2	4.7	A
	Right Turn	7	8	120.0%	6.4	5.2	A
	Subtotal	17	18	103.5%	7.0	3.1	A
EB	Left Turn	13	8	58.5%	8.3	4.4	A
	Through	356	302	84.9%	11.3	0.8	B
	Right Turn	1	1	120.0%	3.2	3.2	A
	Subtotal	370	311	84.1%	11.3	0.8	B
WB	Left Turn						
	Through	324	316	97.7%	16.7	3.2	C
	Right Turn	80	85	106.5%	14.2	2.8	B
	Subtotal	404	402	99.4%	16.1	2.7	C
Total		828	763	92.2%	13.6	1.7	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	135	145	107.6%	42.7	5.7	D
	Through	246	403	163.7%	29.8	4.6	C
	Right Turn	191	70	36.9%	25.2	5.2	C
	Subtotal	572	618	108.1%	32.3	4.4	C
SB	Left Turn	76	62	82.1%	44.9	9.2	D
	Through	198	192	97.0%	17.6	2.1	B
	Right Turn	12	11	93.3%	10.6	4.5	B
	Subtotal	286	266	92.9%	23.8	3.0	C
EB	Left Turn	5	6	112.0%	51.8	43.4	D
	Through	187	157	84.1%	37.7	10.0	D
	Right Turn	173	148	85.3%	28.4	14.1	C
	Subtotal	365	310	85.0%	33.8	12.3	C
WB	Left Turn	135	144	107.0%	37.0	9.5	D
	Through	246	246	100.2%	19.8	4.9	B
	Right Turn	191	185	96.8%	12.9	3.8	B
	Subtotal	572	576	100.6%	21.9	4.8	C
Total		1,795	1,770	98.6%	28.1	4.4	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	314	108.4%	35.3	3.5	D
	Through	59	66	111.9%	13.9	3.1	B
	Right Turn						
	Subtotal	349	380	109.0%	31.6	3.9	C
SB	Left Turn						
	Through	186	174	93.3%	23.1	2.0	C
	Right Turn	210	199	94.7%	18.5	2.8	B
	Subtotal	396	372	94.0%	20.6	1.8	C
EB	Left Turn	185	159	86.1%	28.3	2.8	C
	Through						
	Right Turn	192	168	87.7%	8.4	1.0	A
	Subtotal	377	328	86.9%	18.1	1.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,122	1,080	96.3%	23.7	1.6	C

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	98	90.4%	36.0	4.9	E
	Through	550	564	102.5%	15.8	2.9	C
	Right Turn	54	60	111.9%	13.2	4.4	B
	Subtotal	712	722	101.4%	18.4	2.5	C
SB	Left Turn	44	46	104.5%	53.2	9.9	F
	Through	380	360	94.8%	6.2	1.5	A
	Right Turn	82	75	91.2%	4.1	1.4	A
	Subtotal	506	481	95.1%	10.3	2.3	B
EB	Left Turn	20	24	120.0%	27.3	6.5	D
	Through	86	89	103.3%	30.5	3.5	D
	Right Turn	144	142	98.6%	20.4	4.7	C
	Subtotal	250	255	101.9%	24.4	3.5	C
WB	Left Turn	87	78	89.7%	44.7	20.6	E
	Through	16	15	92.5%	34.5	20.2	D
	Right Turn	30	25	82.7%	30.0	16.1	D
	Subtotal	133	118	88.4%	41.2	16.9	E
Total		1,601	1,576	98.4%	18.7	2.0	C

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	50	41	82.4%	7.7	3.3	A
	Through	497	529	106.4%	5.3	1.7	A
	Right Turn						
	Subtotal	547	570	104.2%	5.4	1.7	A
SB	Left Turn						
	Through	301	264	87.6%	1.3	0.5	A
	Right Turn	34	35	103.5%	0.7	0.7	A
	Subtotal	335	299	89.2%	1.2	0.5	A
EB	Left Turn						
	Through						
	Right Turn	75	82	109.9%	8.5	1.6	A
	Subtotal	75	82	109.9%	8.5	1.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		957	951	99.4%	4.4	1.0	A

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	89	95.9%	42.8	3.2	D
	Through	229	239	104.3%	24.0	4.2	C
	Right Turn	418	412	98.6%	15.0	5.3	B
	Subtotal	740	740	100.0%	21.2	3.6	C
SB	Left Turn	93	92	98.9%	45.6	5.7	D
	Through	156	168	107.9%	21.7	5.0	C
	Right Turn	15	16	109.3%	5.6	6.7	A
	Subtotal	264	277	104.8%	28.8	3.8	C
EB	Left Turn	7	7	97.1%	34.7	24.0	C
	Through	235	232	98.6%	29.3	4.1	C
	Right Turn	71	71	100.3%	15.1	4.1	B
	Subtotal	313	310	98.9%	26.4	3.7	C
WB	Left Turn	264	230	87.3%	38.3	4.7	D
	Through	231	214	92.8%	21.7	3.1	C
	Right Turn	129	114	88.7%	5.6	1.3	A
	Subtotal	624	559	89.6%	25.2	2.8	C
Total		1,941	1,886	97.1%	24.4	2.0	C

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	11	101.8%	30.2	15.8	C
	Through	7	6	80.0%	24.8	20.9	C
	Right Turn	178	182	102.0%	6.3	1.0	A
	Subtotal	196	198	101.2%	8.3	2.1	A
SB	Left Turn	5	4	88.0%	18.2	22.0	B
	Through						
	Right Turn	26	22	83.1%	10.1	6.2	B
	Subtotal	31	26	83.9%	13.0	7.2	B
EB	Left Turn	17	13	77.6%	52.0	16.5	D
	Through	709	708	99.9%	19.5	3.7	B
	Right Turn	20	12	60.0%	10.9	5.6	B
	Subtotal	746	733	98.3%	19.9	3.7	B
WB	Left Turn	279	238	85.4%	58.8	29.6	E
	Through	587	525	89.4%	33.7	25.8	C
	Right Turn	10	8	80.0%	30.1	26.1	C
	Subtotal	876	771	88.0%	41.4	27.2	D
Total		1,849	1,729	93.5%	28.3	13.9	C

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through	1,475	1,475	26	1,525	66	1,475	1	73%	25%
	Through/Right	275	250	24	375	45	300	0	0%	0%
SB	Left Turn	1,425	175	25	250	49	250	55	0%	0%
	Left/Through	1,425	225	23	300	36	300	41	1%	0%
	Right Turn	325	50	22	100	83	125	113	0%	0%
WB	Left Turn	1,275	100	14	175	26	150	29	0%	0%
	Through	275	50	13	100	39	100	36	0%	0%
0										

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	200	38	300	34	250	4	12%	1%
	Through	275	150	47	375	74	325	99	1%	4%
NB	Left Turn	325	50	14	100	34	100	49	0%	0%
	Through/Right	1,175	100	16	150	34	150	36	0%	0%
	Right Turn	1,175	75	12	100	32	125	35	0%	0%
WB	Through	225	125	29	200	53	200	35	0%	0%
	Through/Right	225	175	22	250	30	225	26	0%	2%
	Right Turn	225	150	16	225	26	225	23	0%	1%
0										

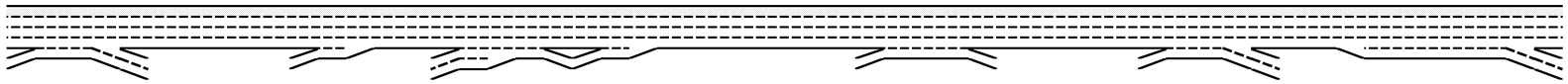
Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left/Through	600	125	27	200	30	200	50	0%	0%
	Through	600	125	20	200	32	200	40	0%	0%
	Through/Right	600	125	15	175	28	175	24	0%	0%
	Right Turn	600	100	21	150	30	150	34	0%	0%
NB	Right Turn	1,075	25	7	50	21	50	28	0%	0%
NE	Shared	3,000	750	180	1,100	244	1,100	228	0%	0%
	Right Turn	3,000	50	54	125	96	175	105	0%	0%
	Right Turn	3,000	50	54	125	96	175	105	0%	0%
	Right Turns	350	200	44	350	79	325	55	0%	0%
SB	Left Turn	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%
	Left/Through	300	25	0	25	0	25	0	0%	0%

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

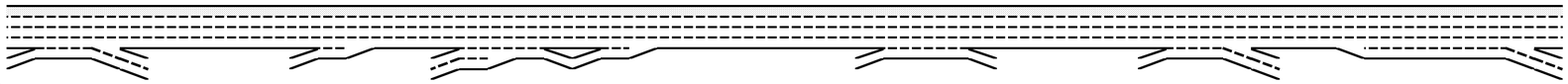
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Define Freeway Segment											
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Length (ft)	775	1,200	825	2,775	600	740	1,900	1,158	1,175	800	2,100
Accel Length			425		590						
Decel Length											2,100
Mainline Volume	6,550	5,776	5,776	6,342	6,342	6,807	6,807	7,815	7,815	7,931	7,931
On Ramp Volume	372		566	1,009	54		1,667		760		
Off Ramp Volume	1,146			544			659		644		1,521
Express Lane Volume	1,982	1,093	1,093	1,278	1,278	1,323	1,318	1,323	1,323	1,341	1,341
EL On Ramp Volume											
EL Off Ramp Volume											
Calculate Flow Rate in Entering General Purpose Lanes (GP)											
Volume (vph)	4,568	4,683	4,683	5,064	5,064	5,484	5,489	6,492	6,492	6,590	6,590
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	4	4	4	4	4	4	4	4	4	4	5
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	5,319	5,453	5,453	5,896	5,896	6,386	6,391	7,560	7,560	7,674	7,674
Flow (pcphpl)	1,330	1,363	1,363	1,474	1,474	1,596	1,598	1,890	1,890	1,918	1,535
Calculate Free Flow Speed in Entering GP Lanes											
Lane Width (ft)											
Shoulder Width											
TRD											
f_{LW}											
f_{LC}											
Calculated FFS											
Measured FFS											
FFS Curve	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes											
Capacity (pcph)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	11,750
v/c ratio	0.57	0.58	0.58	0.63	0.63	0.68	0.68	0.80	0.80	0.82	0.65
Speed (mph)	65.0	65.0	65.0	64.9	64.9	64.5	64.4	61.6	61.6	61.2	64.7
Density (pcphpl)	20.5	21.0	21.0	22.7	22.7	24.8	24.8	30.7	30.7	31.4	23.7
LOS	C	C	C	C	C	C	C	D	D	D	C
Calculate Operations for Segment GP Lanes											
Flow (pcph)	5,739		6,092	7,034	5,954		8,271		8,417		
Lanes	5	4	4	5	4	4	5	4	5	4	5
Capacity (pcph)	11,750		9,400	11,750	9,400		11,750		11,750		
v/c ratio	0.49		0.65	0.60	0.63		0.70		0.72		
Flow Rate (pcphpl)	1,148		1,523	1,407	1,488		1,654		1,683		
Speed (mph)	65.0		64.8	65.0	64.9		64.1		63.9		
Density (pcphpl)	17.7		23.5	21.6	22.9		25.8		26.4		
LOS	B		C	C	C		C		D		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

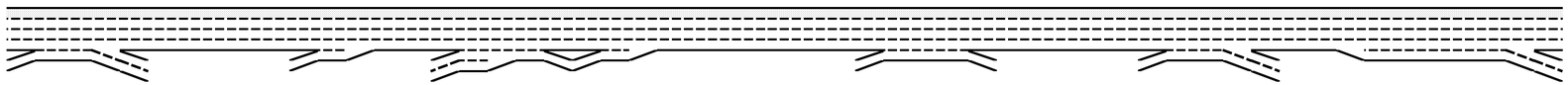
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Operations for Exiting GP Lanes											
Flow (pcph)	4,446			6,421			7,560		7,714		5,975
Lanes	4	4	4	4	4	4	4	4	4	5	4
Capacity (pcph)	9,400			9,400			9,400		9,400		9,400
v/c ratio	0.47			0.68			0.80		0.82		0.64
Flow Rate (pcphpl)	1,112			1,605			1,890		1,928		1,494
Speed (mph)	65.0			64.4			61.6		61.0		64.9
Density (pcphpl)	17.1			24.9			30.7		31.6		23.0
LOS	B			C			D		D		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

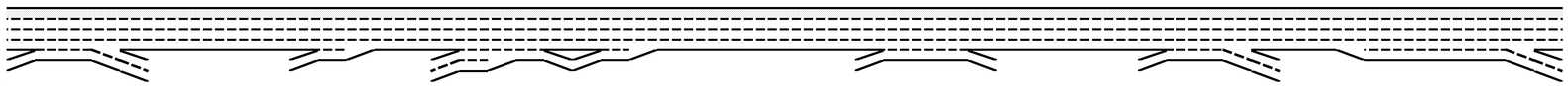
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Flow Rate in Express Lanes											
Volume (vph)	1,982	1,093	1,093	1,278	1,278	1,323	1,318	1,323	1,323	1,341	1,341
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	2,107	1,162	1,162	1,359	1,359	1,407	1,401	1,407	1,407	1,426	1,426
Flow Rate (pcphpl)	2,107	1,162	1,162	1,359	1,359	1,407	1,401	1,407	1,407	1,426	1,426
Calculate Operations in Express Lanes											
FFS	65	65	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	1.20	0.66	0.66	0.78	0.78	0.80	0.80	0.80	0.80	0.81	0.81
Calculate On Ramp Flow Rate											
Volume (vph)	372		566	1,009	54		1,667		760		
PHF	0.9		0.9	0.9	0.95		0.9		0.9		
Lanes	1		1	2	1		1		1		
Terrain	Level		Level	Level	Level		Level		Level		
Grade %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
Grade Length (mi)	0.00		0.00	0.00	0.00		0.00		0.00		
Truck & Bus %	3.0%		3.0%	3.0%	3.0%		3.0%		3.0%		
RV %	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		
E_T	1.5		1.5	1.5	1.5		1.5		1.5		
E_R	1.2		1.2	1.2	1.2		1.2		1.2		
f_{HV}	0.985		0.985	0.985	0.985		0.985		0.985		
f_P	1.00		1.00	1.00	1.00		1.00		1.00		
Flow (pcph)	420		638	1,138	58		1,880		857		
Flow Rate (pcphpl)	420		638	569	58		1,880		857		
Calculate On Ramp Roadway Operations											
Ramp Type	Right		Right	Right	Right		Right		Right		
Ramp Speed (mph)	45		45	45	45		45		45		
Ramp Capacity (pcph)	2,100		2,100	4,200	2,100		2,100		2,100		
Ramp v/c ratio	0.20		0.30	0.27	0.03		0.90		0.41		

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

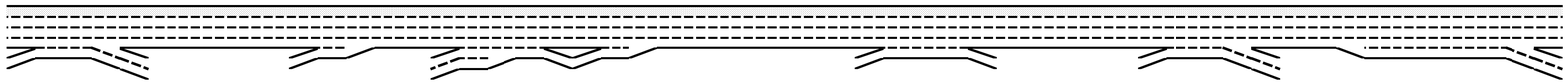
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Off Ramp Flow Rate											
Volume (vph)	1,146			544			659		644		1,521
PHF	0.9			0.9			0.94		0.93		0.94
Lanes	2			1			1		2		2
Terrain	Level			Level			Level		Level		Level
Grade %	0.0%			0.0%			0.0%		0.0%		0.0%
Grade Length (mi)	0.00			0.00			0.00		0.00		0.00
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		10.0%
RV %	0.0%			0.0%			0.0%		0.0%		0.0%
E_T	1.5			1.5			1.5		1.5		1.5
E_R	1.2			1.2			1.2		1.2		1.2
f_{HV}	0.985			0.985			0.985		0.985		0.952
f_P	1.00			1.00			1.00		1.00		1.00
Flow (pcph)	1,292			614			712		703		1,699
Flow Rate (pcphpl)	646			614			712		351		849
Calculate Off Ramp Roadway Operations											
Ramp Type	Right			Right			Right		Right		Major
Ramp Speed	45			45			45		45		60
Ramp Capacity (pcph)	4,200			2,100			2,100		4,200		4,600
Ramp v/c ratio	0.31			0.29			0.34		0.17		0.37
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps											
Up Type											
Up Distance											
Up Flow (pcph)											
Down Type											
Down Distance											
Down Flow (pcph)											
Calculate Merge Influence Area Operations											
Effective v_P (pcph)			5,453		5,896						
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FM} (Eqn 13-3)			0.589		0.594						
P_{FM} (Eqn 13-4)											
P_{FM} (Eqn 13-5)											
P_{FM}			0.138		0.211						
v_{12} (pcph)			753		1,242						
v_3 (pcph)											
v_{34} (pcph)			4,701		4,655						
v_{12a} (pcph)			2,181		2,358						
v_{R12a} (pcph)			2,820		2,416						
Speed Index			0.35		0.31						
Area Speed			57.0		57.8						
Outer Lanes Volume			1,636		1,769						
Outer Lanes Speed			60.9		60.4						
Segment Speed			59.0		59.3						
v/c ratio			0.61		0.53						
Density			24.5		20.6						
LOS			C		C						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

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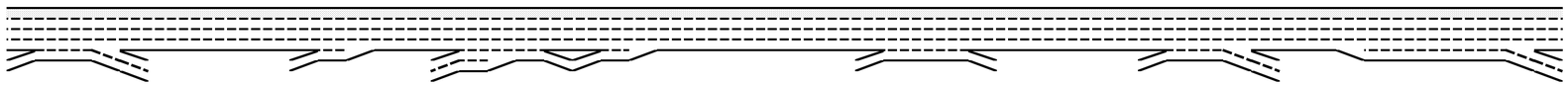
Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Diverge Influence Area Operations											
Effective v_P (pcph)											
Up Ramp L_{EQ}											
Down Ramp L_{EQ}											
P_{FD} (Eqn 13-9)											
P_{FD} (Eqn 13-10)											
P_{FD} (Eqn 13-11)											
P_{FD}											
v_{12} (pcph)											
v_3 (pcph)											
v_{34} (pcph)											
v_{12a} (pcph)											
Speed Index											
Area Speed											
Outer Lanes Volume											
Outer Lanes Speed											
Segment Speed											
v/c ratio											
Density											26.9
LOS											C
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments											
On to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to Off Flow (pcph)											
Calculate On Ramp to Mainline Flow Rate for Weave Segments											
On to ML Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	3.0%			3.0%			3.0%		3.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.985			0.985			0.985		0.985		
f_P	1.00			1.00			1.00		1.00		
On to ML Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

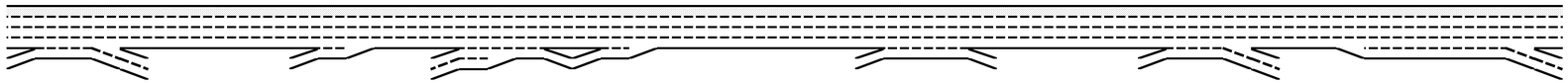
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Mainline to Off Ramp Flow Rate for Weave Segments											
ML to Off Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
ML to Off Flow (pcph)											
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments											
GP to GP Volume (vph)											
PHF	0.95			0.95			0.95		0.95		
Terrain	Level			Level			Level		Level		
Grade %	0.0%			0.0%			0.0%		0.0%		
Grade Length (mi)	0.00			0.00			0.00		0.00		
Truck & Bus %	6.0%			6.0%			6.0%		6.0%		
RV %	0.0%			0.0%			0.0%		0.0%		
E_T	1.5			1.5			1.5		1.5		
E_R	1.2			1.2			1.2		1.2		
f_{HV}	0.971			0.971			0.971		0.971		
f_P	1.00			1.00			1.00		1.00		
GP to GP Flow (pcph)											

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Northbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	4	5	6	7	8	9	10



Key

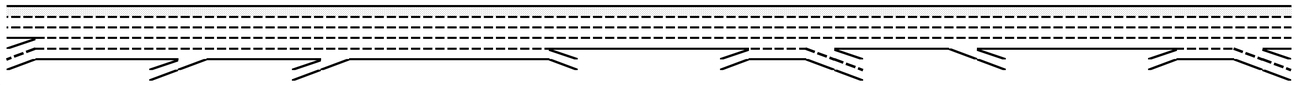
<> Express Lane (HOV)

Name	P St to J St	J St to L St	L St On-Ramp	I St to Richards Blvd	Bercut Dr On Ramp	Btwn Bercut Richards	Richards Blvd to Garden Hwy	Between Garden Hwy Ramps	Garden Hwy to W. El Camino Ave	W. El Camino Ave to I-80	I-80 Off
Calculate Weave Segment Operations											
Type											
Length											
Segment Lanes											
Weave Lanes											
Weave Flow (pcph)											
Non-Weave Flow											
Segment Flow											
Max Weave Length											
Length Check											
Ideal Weave Capacity											
f_{HV}											
f_P											
Capacity Condition 1											
Capacity Condition 2											
v/c ratio											
Interchange Density											
Lane Changes On to ML											
Lane Changes ML to Off											
Lane Changes On to Off											
Min Lane Change Rate											
Weave LC Rate											
Non-Weave LC Rate 1											
Non-Weave LC Rate 2											
Non-Weave LC Rate 3											
Segment LC Rate											
Weave Intensity Factor											
Weave Speed											
Non-Weave Speed											
Segment Speed											
Density											
LOS											
Summarize Segment Operations											
Segment v/c ratio		0.58	0.61		0.53	0.68		0.80		0.82	
Segment Density	-	21.0	24.5		20.6	24.8		30.7		31.4	26.9
Segment LOS	F	C	C		C	C		D		D	C
Over Capacity	Express Lanes										
Type	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge
Report	Weave	Basic	Merge	Weave	Merge	Basic	Weave	Basic	Weave	Basic	Diverge

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

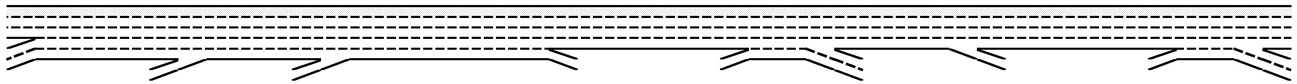
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Define Freeway Segment									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Length (ft)	1,250	900	650	650	1,280	1,900	200	850	2,300
Accel Length		100	275						
Decel Length				750			140		
Mainline Volume	3,971	5,211	5,472	5,625	5,231	5,231	5,231	4,744	4,744
On Ramp Volume	1,240	261	153			530			868
Off Ramp Volume				394		1,017	44		612
Express Lane Volume	1,027	827	872	939	865	865	843	806	806
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in Entering General Purpose Lanes (GP)									
Volume (vph)	2,944	4,384	4,600	4,686	4,366	4,366	4,388	3,938	3,938
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Lanes	3	5	5	5	4	4	4	4	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	3,428	5,105	5,357	5,457	5,083	5,083	5,109	4,586	4,586
Flow (pcphpl)	1,143	1,021	1,071	1,091	1,271	1,271	1,277	1,146	1,146
Calculate Free Flow Speed in Entering GP Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in Entering GP Lanes									
Capacity (pcph)	7,050	11,750	11,750	11,750	9,400	9,400	9,400	9,400	9,400
v/c ratio	0.49	0.43	0.46	0.46	0.54	0.54	0.54	0.49	0.49
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	17.6	15.7	16.5	16.8	19.6	19.6	19.7	17.6	17.6
LOS	B	B	B	B	C	C	C	B	B
Calculate Operations for Segment GP Lanes									
Flow (pcph)	4,875	5,396	5,529			5,681			5,565
Lanes	5	5	5	5	4	5	4	4	5
Capacity (pcph)	11,750	11,750	11,750			11,750			11,750
v/c ratio	0.41	0.46	0.47			0.48			0.47
Flow Rate (pcphpl)	975	1,079	1,106			1,136			1,113
Speed (mph)	65.0	65.0	65.0			65.0			65.0
Density (pcphpl)	15.0	16.6	17.0			17.5			17.1
LOS	B	B	B			B			B

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

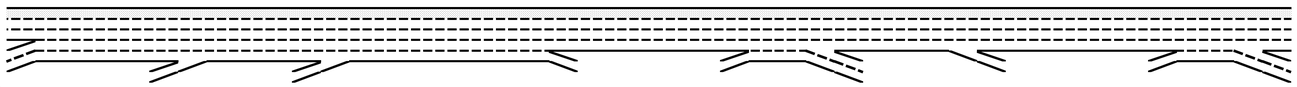
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Operations for Exiting GP Lanes									
Flow (pcph)				5,032		4,547	5,062		4,874
Lanes	5	5	5	4	4	4	4	4	4
Capacity (pcph)				9,400		9,400	9,400		9,400
v/c ratio				0.54		0.48	0.54		0.52
Flow Rate (pcphpl)				1,258		1,137	1,266		1,219
Speed (mph)				65.0		65.0	65.0		65.0
Density (pcphpl)				19.4		17.5	19.5		18.7
LOS				C		B	C		C

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

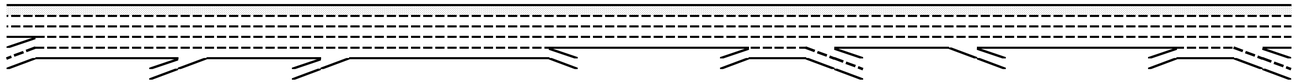
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Flow Rate in Express Lanes									
Volume (vph)	1,027	827	872	939	865	865	843	806	806
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes	1	1	1	1	1	1	1	1	1
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow (pcph)	1,092	879	927	998	920	920	896	857	857
Flow Rate (pcphpl)	1,092	879	927	998	920	920	896	857	857
Calculate Operations in Express Lanes									
FFS	65	65	65	65	65	65	65	65	65
Capacity (pcph)	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
v/c ratio	0.62	0.50	0.53	0.57	0.53	0.53	0.51	0.49	0.49
Calculate On Ramp Flow Rate									
Volume (vph)	1,240	261	153			530			868
PHF	0.9	0.91	0.9			0.9			0.9
Lanes	2	1	1			1			1
Terrain	Level	Level	Level			Level			Level
Grade %	0.0%	0.0%	0.0%			0.0%			0.0%
Grade Length (mi)	0.00	0.00	0.00			0.00			0.00
Truck & Bus %	10.0%	3.0%	3.0%			3.0%			3.0%
RV %	0.0%	0.0%	0.0%			0.0%			0.0%
E_T	1.5	1.5	1.5			1.5			1.5
E_R	1.2	1.2	1.2			1.2			1.2
f_{HV}	0.952	0.985	0.985			0.985			0.985
f_P	1.00	1.00	1.00			1.00			1.00
Flow (pcph)	1,447	291	173			598			979
Flow Rate (pcphpl)	723	291	173			598			979
Calculate On Ramp Roadway Operations									
Ramp Type	Major	Right	Right			Right			Right
Ramp Speed (mph)	60	45	45			45			45
Ramp Capacity (pcph)	4,600	2,100	2,100			2,100			2,100
Ramp v/c ratio	0.31	0.14	0.08			0.28			0.47

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

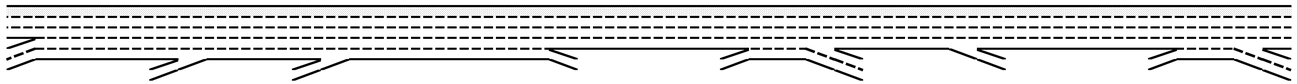
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Off Ramp Flow Rate									
Volume (vph)				394		1,017	44		612
PHF				0.94		0.91	0.95		0.9
Lanes				1		2	1		2
Terrain				Level		Level	Level		Level
Grade %				0.0%		0.0%	0.0%		0.0%
Grade Length (mi)				0.00		0.00	0.00		0.00
Truck & Bus %				3.0%		3.0%	3.0%		3.0%
RV %				0.0%		0.0%	0.0%		0.0%
E_T				1.5		1.5	1.5		1.5
E_R				1.2		1.2	1.2		1.2
f_{HV}				0.985		0.985	0.985		0.985
f_P				1.00		1.00	1.00		1.00
Flow (pcph)				425		1,134	47		690
Flow Rate (pcphpl)				425		567	47		345
Calculate Off Ramp Roadway Operations									
Ramp Type				Right		Right	Right		Right
Ramp Speed				45		45	45		45
Ramp Capacity (pcph)				2,100		4,200	2,100		4,200
Ramp v/c ratio				0.20		0.27	0.02		0.16
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)		3,982	4,178						
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)		0.580	0.585						
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}		0.181	0.196						
v_{12} (pcph)		722	820						
v_3 (pcph)									
v_{3t} (pcph)		3,260	3,358						
v_{12a} (pcph)		1,593	1,671						
v_{R12a} (pcph)		1,884	1,844						
Speed Index		0.34	0.32						
Area Speed		57.2	57.6						
Outer Lanes Volume		1,195	1,253						
Outer Lanes Speed		62.5	62.3						
Segment Speed		60.1	60.2						
v/c ratio		0.41	0.40						
Density		19.4	18.1						
LOS		B	B						

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

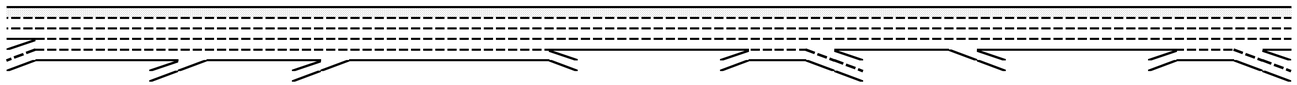
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)				4,911			5,109		
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)				0.618			0.630		
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}				0.436			0.436		
v_{12} (pcph)				2,381			2,254		
v_3 (pcph)									
v_{34} (pcph)				2,530			2,855		
v_{12a} (pcph)				2,381			2,254		
Speed Index				0.34			0.30		
Area Speed				57.3			58.0		
Outer Lanes Volume				1,265			1,428		
Outer Lanes Speed				70.3			69.6		
Segment Speed				63.3			64.0		
v/c ratio				0.54			0.51		
Density				18.0			22.4		
LOS				B			C		
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to Off Flow (pcph)									
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						3.0%			3.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.985			0.985
f_P						1.00			1.00
On to ML Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

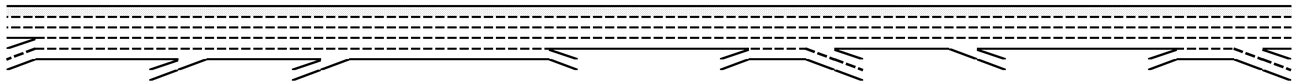
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
ML to Off Flow (pcph)									
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)									
PHF						0.95			0.95
Terrain						Level			Level
Grade %						0.0%			0.0%
Grade Length (mi)						0.00			0.00
Truck & Bus %						6.0%			6.0%
RV %						0.0%			0.0%
E_T						1.5			1.5
E_R						1.2			1.2
f_{HV}						0.971			0.971
f_P						1.00			1.00
GP to GP Flow (pcph)									

Project: Railyards / MLS Stadium / Kaiser Medical Campus
Freeway Corridor: Southbound I-5

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4	5	6	7	8	9



Key

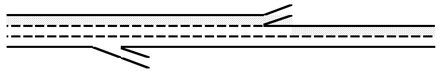
<> Express Lane (HOV)

Name	I-80 On-Ramp	W. El Camino Ave WB On	W. El Camino Ave EB On	Garden Hwy Off	Between Garden Hwy Ramps	Garden Hwy to Richards Blvd	Jiboom St Off Ramp	Btwn Jiboom Richards	Richards Blvd to J St
Calculate Weave Segment Operations									
Type									
Length									
Segment Lanes									
Weave Lanes									
Weave Flow (pcph)									
Non-Weave Flow									
Segment Flow									
Max Weave Length									
Length Check									
Ideal Weave Capacity									
f_{HV}									
f_P									
Capacity Condition 1									
Capacity Condition 2									
v/c ratio									
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Density									
LOS									
Summarize Segment Operations									
Segment v/c ratio	0.41	0.41	0.40	0.54	0.54		0.51	0.49	
Segment Density	15.0	19.4	18.1	18.0	19.6		22.4	17.6	
Segment LOS	B	B	B	B	C		C	B	
Over Capacity									
Type	Merge	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave
Report	**Basic**	Merge	Merge	Diverge	Basic	Weave	Diverge	Basic	Weave

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3

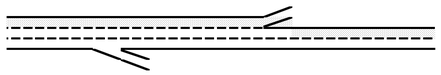


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Freeway Segment			
Type	Diverge	Diverge	Basic
Length (ft)	1,025	2,010	2,070
Accel Length			
Decel Length	150		
Mainline Volume	2,547	2,319	1,483
On Ramp Volume			
Off Ramp Volume	228	836	
Express Lane Volume			
EL On Ramp Volume			
EL Off Ramp Volume			
Flow Rate in Entering General Purpose Lanes (GP)			
Volume (vph)	2,547	2,319	1,483
PHF	0.85	0.85	0.85
Lanes	3	3	2
Terrain	Level	Level	Level
Grade %	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5
E_R	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985
f_P	1.00	1.00	1.00
Flow (pcph)	3,041	2,769	1,771
Flow (pcphpl)	1,014	923	885
Free Flow Speed in Entering GP Lanes			
Lane Width (ft)			
Shoulder Width			
TRD			
f_{LW}			
f_{LC}			
Calculated FFS			
Measured FFS			
FFS Curve	65	70	70
Operations in Entering GP Lanes			
Capacity (pcph)	7,050	7,200	4,800
v/c ratio	0.43	0.38	0.37
Speed (mph)	65.0	70.0	70.0
Density (pcphpl)	15.6	13.2	12.6
LOS	B	B	B
Operations for Segment GP Lanes			
Flow (pcph)			
Lanes	3	3	
Capacity (pcph)			
v/c ratio			
Flow Rate (pcphpl)			
Speed (mph)			
Density (pcphpl)			
LOS			

Location	1	2	3

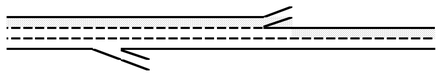


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Operations for Exiting GP Lanes			
Flow (pcph)	2,769	1,771	
Lanes	3	2	
Capacity (pcph)	7,050	4,800	
v/c ratio	0.39	0.37	
Flow Rate (pcphpl)	923	885	
Speed (mph)	65.0	70.0	
Density (pcphpl)	14.2	12.6	
LOS	B	B	

Location	1	2	3



Key

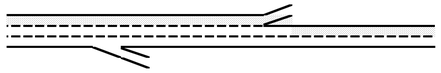
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Flow Rate in Express Lanes			
Operations in Express Lanes			
On Ramp Flow Rate			
On Ramp Roadway Operations			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Northbound CA-160

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3

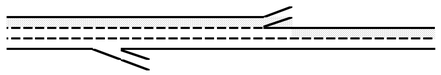


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Off Ramp Flow Rate			
Volume (vph)	228	836	
PHF	0.85	0.85	
Lanes	1	1	
Terrain	Level	Level	
Grade %	0.0%	0.0%	
Grade Length (mi)	0.00	0.00	
Truck & Bus %	3.0%	3.0%	
RV %	0.0%	0.0%	
E_T	1.5	1.5	
E_R	1.2	1.2	
f_{HV}	0.985	0.985	
f_P	1.00	1.00	
Flow (pcph)	272	998	
Flow Rate (pcphpl)	272	998	
Off Ramp Roadway Operations			
Ramp Type	Right	Left	
Ramp Speed	45	35	
Ramp Capacity (pcph)	2,100	2,000	
Ramp v/c ratio	0.13	0.50	
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps			
Up Type		Off	
Up Distance		3,035	
Up Flow (pcph)		272	
Down Type	No	No	
Down Distance			
Down Flow (pcph)			
Merge Influence Area Operations			
Effective v_P (pcph)			
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FM} (Eqn 13-3)			
P_{FM} (Eqn 13-4)			
P_{FM} (Eqn 13-5)			
P_{FM}			
v_{12} (pcph)			
v_3 (pcph)			
v_{34} (pcph)			
v_{12a} (pcph)			
v_{R12a} (pcph)			
Speed Index			
Area Speed			
Outer Lanes Volume			
Outer Lanes Speed			
Segment Speed			
v/c ratio			
Density			
LOS			

Location	1	2	3

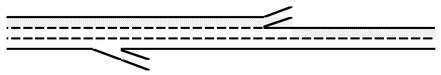


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Diverge Influence Area Operations			
Effective v_P (pcph)	3,041		
Up Ramp L_{EQ}			
Down Ramp L_{EQ}			
P_{FD} (Eqn 13-9)	0.671		
P_{FD} (Eqn 13-10)			
P_{FD} (Eqn 13-11)			
P_{FD}	0.671		
v_{12} (pcph)	2,132		
v_3 (pcph)	910		
v_{34} (pcph)			
v_{12a} (pcph)	2,132		
Speed Index	0.32		
Area Speed	57.6		
Outer Lanes Volume	910		
Outer Lanes Speed	71.3		
Segment Speed	61.1		
v/c ratio	0.48		
Density	21.2		
LOS	C		
On Ramp to Off Ramp Flow Rate for Weave Segments			
On Ramp to Mainline Flow Rate for Weave Segments			

Location	1	2	3

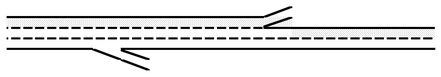


Key

<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Mainline to Off Ramp Flow Rate for Weave Segments			
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm			

Location	1	2	3



Key

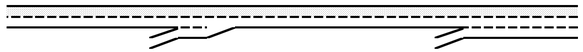
<> Express Lane (HOV)

Name	Northgate Blvd Off-Ramp	Northgate Blvd to Del Paso Blvd	Del Paso Blvd to Leisure Ln
Weave Segment Operations			
Summarize Segment Operations			
Segment v/c ratio	0.48	0.38	0.37
Segment Density	21.2	13.2	12.6
Segment LOS	C	B	B
Over Capacity			

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4



Key

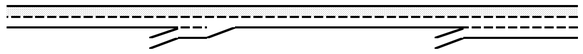
<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Freeway Segment				
Type	Basic	Merge	Basic	Merge
Length (ft)	1,055	1,500	515	680
Accel Length		755		
Decel Length				
Mainline Volume	2,591	2,591	2,973	2,973
On Ramp Volume		382		318
Off Ramp Volume				
Express Lane Volume				
EL On Ramp Volume				
EL Off Ramp Volume				
Flow Rate in Entering General Purpose Lanes (GP)				
Volume (vph)	2,591	2,591	2,973	2,973
PHF	0.9	0.9	0.9	0.9
Lanes	2	2	2	3
Terrain	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00
Truck & Bus %	3.0%	3.0%	3.0%	3.0%
RV %	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2
f_{HV}	0.985	0.985	0.985	0.985
f_P	1.00	1.00	1.00	1.00
Flow (pcph)	2,922	2,922	3,353	3,353
Flow (pcphpl)	1,461	1,461	1,676	1,118
Free Flow Speed in Entering GP Lanes				
Lane Width (ft)				
Shoulder Width				
TRD				
f_{LW}				
f_{LC}				
Calculated FFS				
Measured FFS				
FFS Curve	55	65	65	65
Operations in Entering GP Lanes				
Capacity (pcph)	4,500	4,700	4,700	7,050
v/c ratio	0.65	0.62	0.71	0.48
Speed (mph)	55.0	64.9	63.9	65.0
Density (pcphpl)	26.6	22.5	26.2	17.2
LOS	D	C	D	B
Operations for Segment GP Lanes				
Flow (pcph)		3,353		3,712
Lanes		2		3
Capacity (pcph)		4,700		7,050
v/c ratio		0.71		0.53
Flow Rate (pcphpl)		1,676		1,237
Speed (mph)		63.9		65.0
Density (pcphpl)		26.2		19.0
LOS		D		C

Project: Railyards-MLS-Kaiser EIR
Freeway Corridor: Southbound CA-160

Alternative: Cumulative Plus Project
Time Period: Pre-Event Peak Hour

Location	1	2	3	4

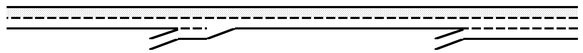


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Operations for Exiting GP Lanes				
Flow (pcph)				
Lanes				
Capacity (pcph)				
v/c ratio				
Flow Rate (pcphpl)				
Speed (mph)				
Density (pcphpl)				
LOS				

Location	1	2	3	4

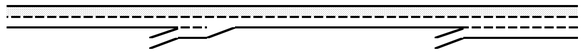


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Flow Rate in Express Lanes				
Operations in Express Lanes				
On Ramp Flow Rate				
Volume (vph)		382		318
PHF		0.9		0.9
Lanes		1		1
Terrain		Level		Level
Grade %		0.0%		0.0%
Grade Length (mi)		0.00		0.00
Truck & Bus %		3.0%		3.0%
RV %		0.0%		0.0%
E_T		1.5		1.5
E_R		1.2		1.2
f_{HV}		0.985		0.985
f_P		1.00		1.00
Flow (pcph)		431		359
Flow Rate (pcphpl)		431		359
On Ramp Roadway Operations				
Ramp Type		Right		Right
Ramp Speed (mph)		45		45
Ramp Capacity (pcph)		2,100		2,100
Ramp v/c ratio		0.21		0.17

Location	1	2	3	4

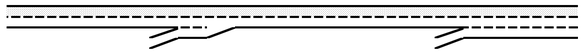


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Off Ramp Flow Rate				
Off Ramp Roadway Operations				
Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps				
Up Type				No
Up Distance				
Up Flow (pcph)				
Down Type				No
Down Distance				
Down Flow (pcph)				
Merge Influence Area Operations				
Effective v_P (pcph)		2,922		
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FM} (Eqn 13-3)		0.599		
P_{FM} (Eqn 13-4)				
P_{FM} (Eqn 13-5)				
P_{FM}		1.000		
v_{12} (pcph)		2,922		
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)		2,922		
v_{R12a} (pcph)		3,353		
Speed Index		0.36		
Area Speed		56.6		
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed		56.6		
v/c ratio		0.73		
Density		26.7		
LOS		C		

Location	1	2	3	4

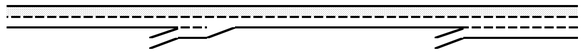


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Diverge Influence Area Operations				
Effective v_P (pcph)				
Up Ramp L_{EQ}				
Down Ramp L_{EQ}				
P_{FD} (Eqn 13-9)				
P_{FD} (Eqn 13-10)				
P_{FD} (Eqn 13-11)				
P_{FD}				
v_{12} (pcph)				
v_3 (pcph)				
v_{34} (pcph)				
v_{12a} (pcph)				
Speed Index				
Area Speed				
Outer Lanes Volume				
Outer Lanes Speed				
Segment Speed				
v/c ratio				
Density				
LOS				
On Ramp to Off Ramp Flow Rate for Weave Segments				
On Ramp to Mainline Flow Rate for Weave Segments				

Location	1	2	3	4

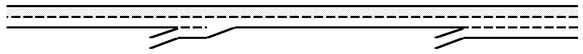


Key

<> Express Lane (HOV)

Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Mainline to Off Ramp Flow Rate for Weave Segments				
General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segm				

Location	1	2	3	4



Key

<> Express Lane (HOV)

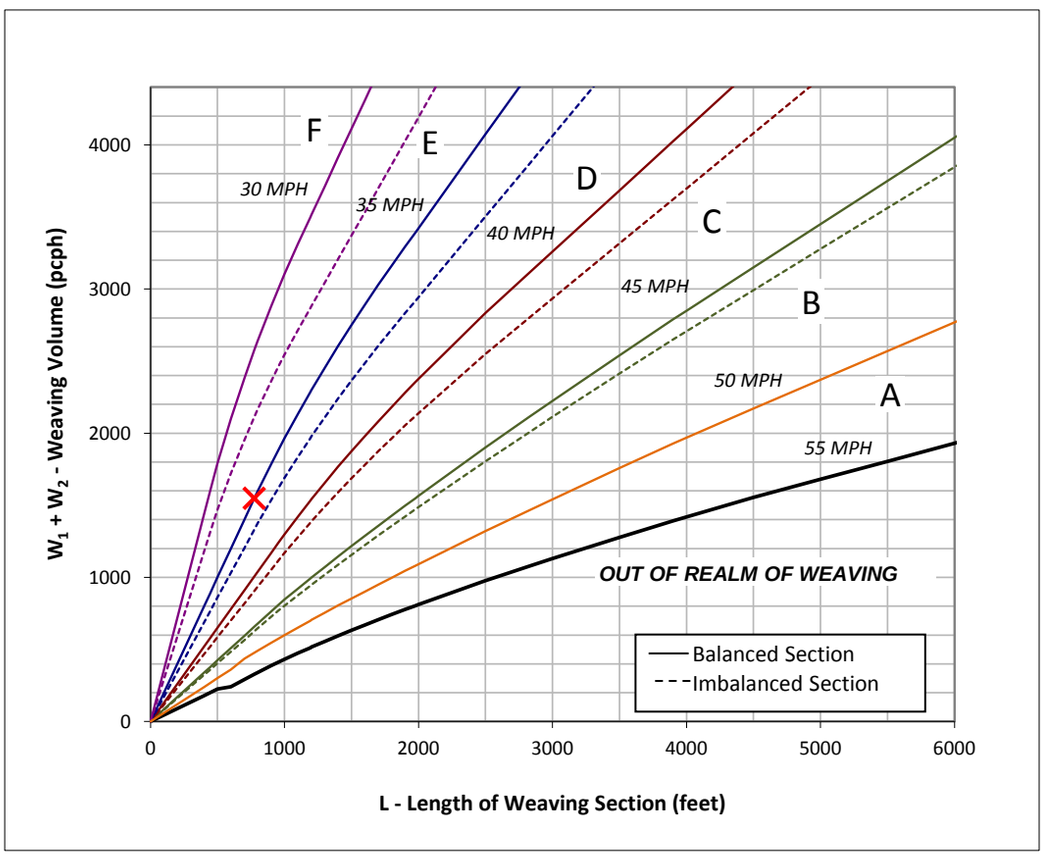
Name	North of Del Paso Blvd	Del Paso Blvd On-Ramp	Del Paso Blvd to Northgate Blvd	Northgate Blvd On-Ramp
Weave Segment Operations				
Summarize Segment Operations				
Segment v/c ratio	0.65	0.73	0.71	0.53
Segment Density	26.6	26.7	26.2	19.0
Segment LOS	D	C	D	C
Over Capacity				

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	P Street
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,550	Volume (vph)*	372	Volume (vph)*	1,146
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,864	Volume (pcph)	379	Volume (pcph)	1,169



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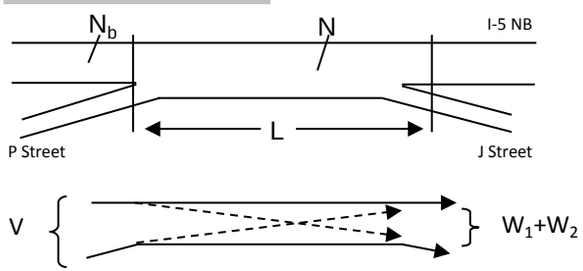


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	32.2
4. Weaving Intensity Factor (k)	2.99
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,524
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

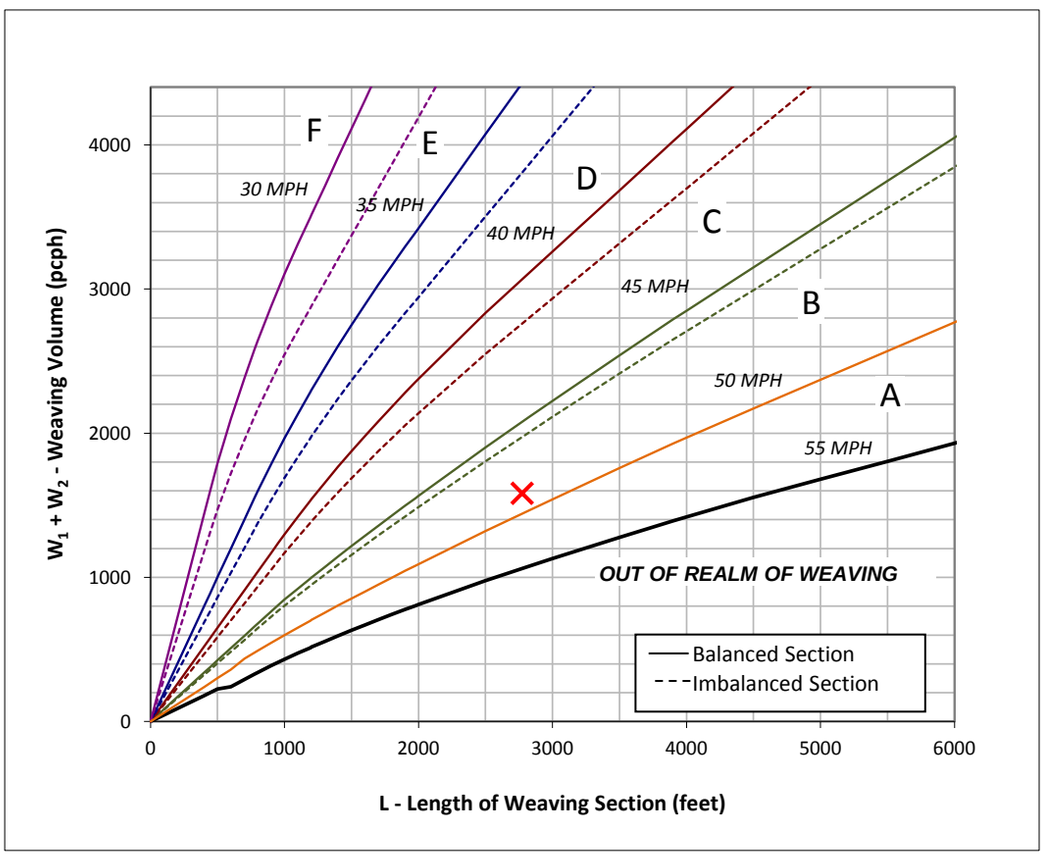
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,775

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	I Street
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,342	Volume (vph)*	1,009	Volume (vph)*	544
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,646	Volume (pcph)	1,029	Volume (pcph)	555



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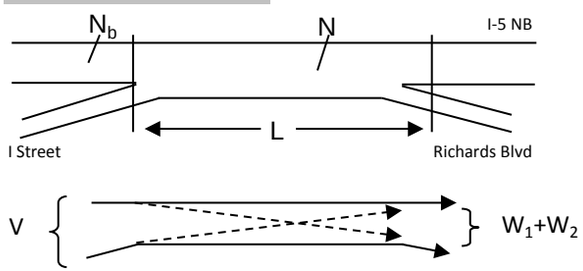


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   If optional exit lane, then "Y". Otherwise "N".
2. In the chart to the left, which two speed curves is the red "x" between?
   45 MPH and **50 MPH**
   If left of the 30 MPH curve, LOS is F. Select "-".
   If below the 55 MPH curve, out of the realm of weaving.
3. Interpolated Weaving Speed (S_w, mph) **48.7**
4. Weaving Intensity Factor (k) **1.13**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,344**
6. Level of Service (LOS) **C**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

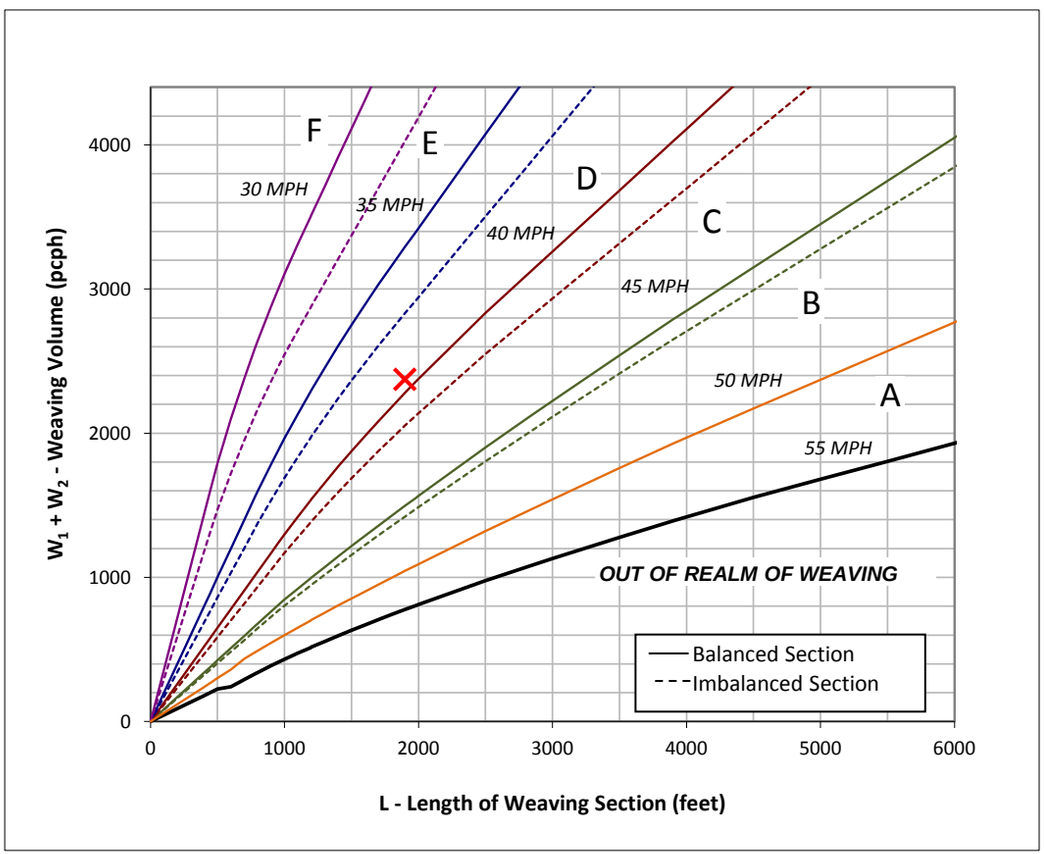
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,900

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Richards Blvd
Off-ramp	Garden Highway

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,807	Volume (vph)*	1,667	Volume (vph)*	659
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	7,134	Volume (pcph)	1,700	Volume (pcph)	672



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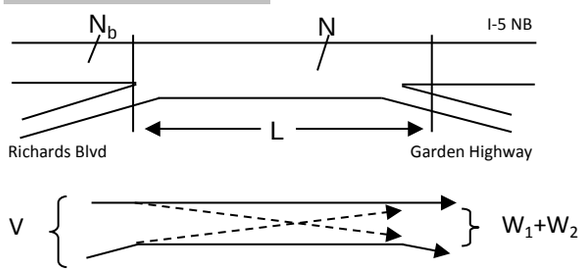


Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**50 MPH** and **55 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	25.2
4. Weaving Intensity Factor (k)	3.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,696
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

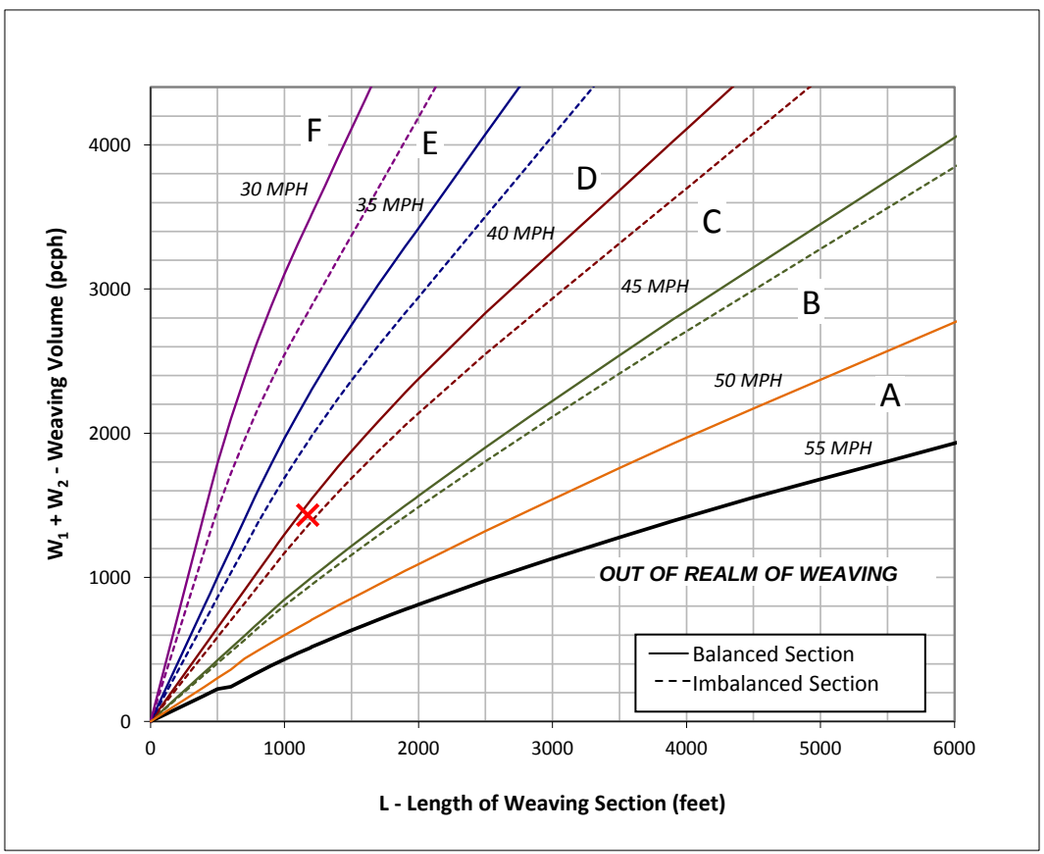
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

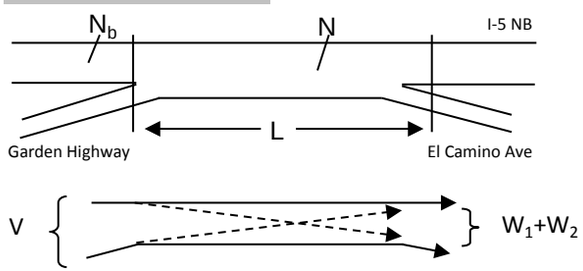
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	1,175

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 NB
On-ramp	Garden Highway
Off-ramp	El Camino Ave

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	7,815	Volume (vph)*	760	Volume (vph)*	644
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	8,190	Volume (pcph)	775	Volume (pcph)	657



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**40 MPH** and **45 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	40.7
4. Weaving Intensity Factor (k)	2.47
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,831
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

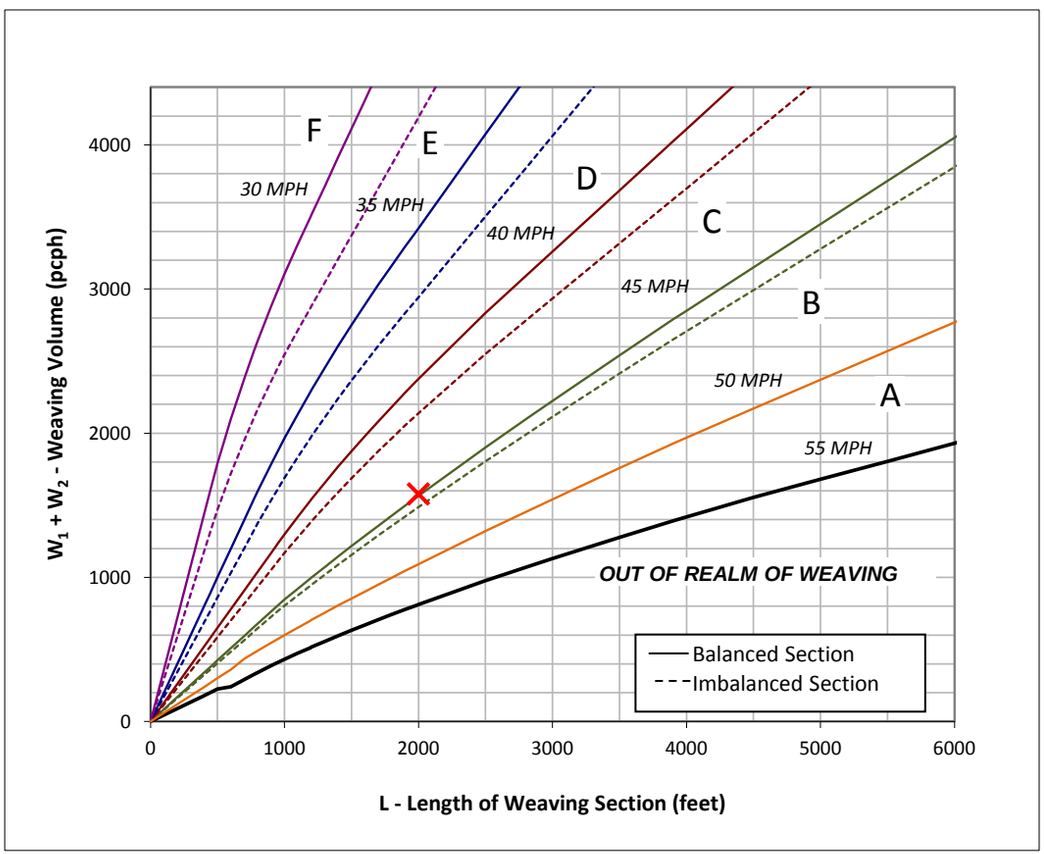
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

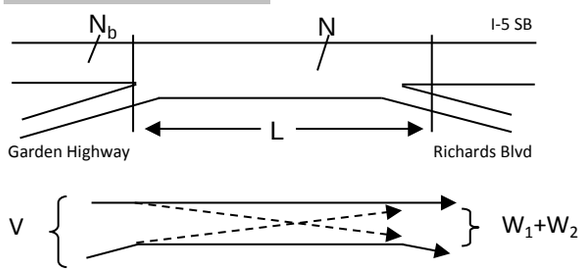
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Garden Highway
Off-ramp	Richards Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	6,086	Volume (vph)*	530	Volume (vph)*	1,017
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	6,378	Volume (pcph)	541	Volume (pcph)	1,037



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	N
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	43.9
4. Weaving Intensity Factor (k)	2.11
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,396
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

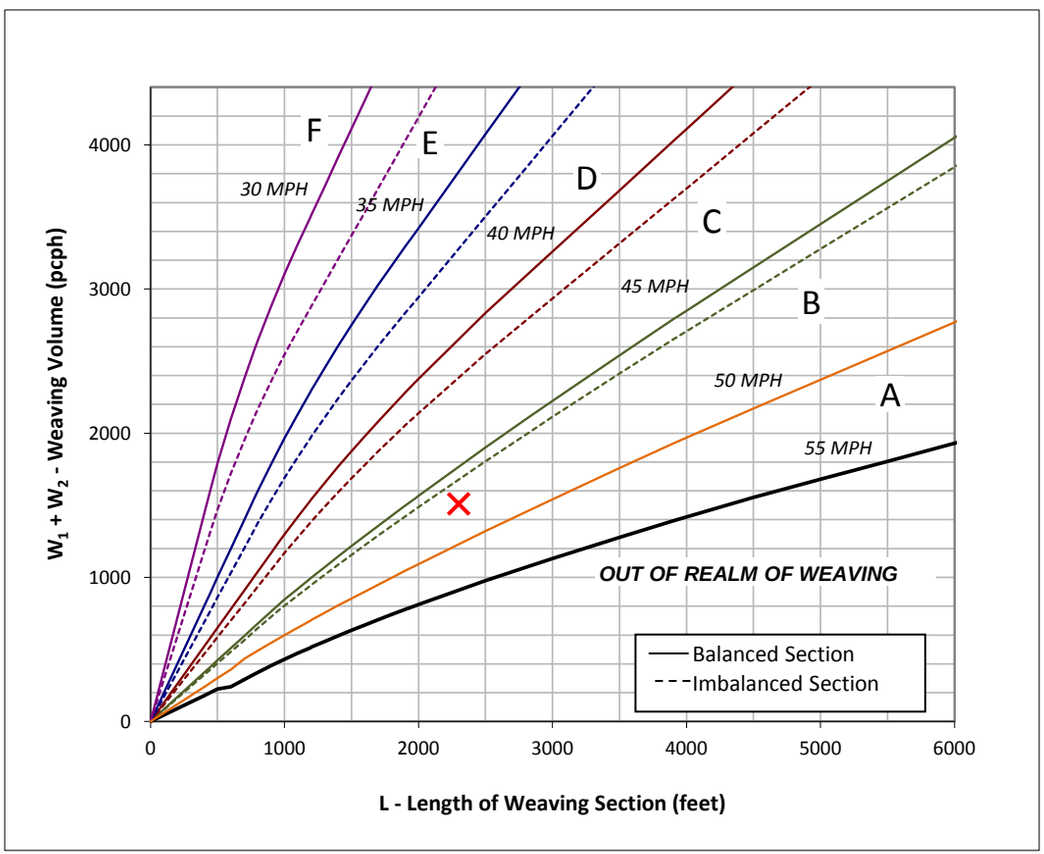
Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Leisch Method for Weaving Analysis

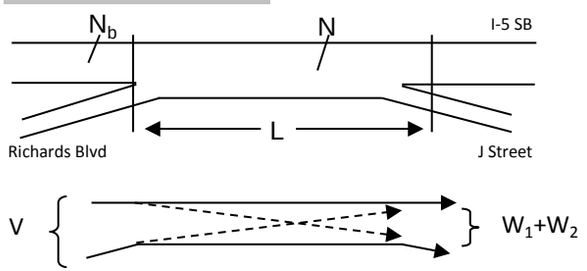
Data Input		
Number of Entering Mainline Lanes	N_b	4
Number of Lanes in Weaving Section	N	5
Length of Weaving Section (feet)	L	2,300

Project Information	
Project	Railyards / MLS Stadium / Kaiser
Scenario	Cumulative Plus Project Pre-Event Peak Hour
Freeway	I-5 SB
On-ramp	Richards Blvd
Off-ramp	J Street

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,599	Volume (vph)*	868	Volume (vph)*	612
Truck Percentage	10%	Truck Percentage	4%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,868	Volume (pcph)	885	Volume (pcph)	624



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? *If optional exit lane, then "Y". Otherwise "N".*	Y
2. In the chart to the left, which two speed curves is the red "x" between?	**45 MPH** and **50 MPH**
If left of the 30 MPH curve, LOS is F. Select "-".	
If below the 55 MPH curve, out of the realm of weaving.	
3. Interpolated Weaving Speed (S_w, mph)	47.4
4. Weaving Intensity Factor (k)	1.34
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,216
6. Level of Service (LOS)	C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Sources: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983 and *Highway Design Manual* , California Department of Transportation, 2014

Daily VMT - Railyards Specific Plan Trips
Cumulative Year Plus Railyards Specific Plan

Daily VMT for Railyards Specific Plan			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	1,497
2	>5	<=10	3,983
3	>10	<=15	14,642
4	>15	<=20	94,122
5	>20	<=25	67,908
6	>25	<=30	46,137
7	>30	<=35	44,769
8	>35	<=40	53,631
9	>40	<=45	53,268
10	>45	<=50	59,556
11	>50	<=55	108,403
12	>55	<=60	209,981
13	>60	<=65	47,887
14	>65	<=70	9,871
15	>70	<=75	0
16	>75		0
Railyards SP VMT Within SACMET Model Boundary			815,655
Railyards SP VMT Beyond SACMET Model Boundary			66,296
Total Railyards SP VMT			**881,951**
Total Railyards SP Vehicle Trips			109,728
Average Railyards SP VMT Per Trip			7.4

Note:

Includes all vehicle trips generated and attracted to Railyards Specific Plan, including internal vehicle trips that remain within the plan area.

Trip lengths include distances beyond SACMET model boundary

APPENDIX J.1.16:

Land Use Variant Level of Service (LOS) Calculations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	317	323	102.0%	27.6	2.8	C
	Through	69	67	97.4%	29.3	5.5	C
	Right Turn	534	502	93.9%	15.2	2.4	B
	Subtotal	920	892	97.0%	20.7	1.6	C
EB	Left Turn						
	Through	693	558	80.5%	113.6	31.4	F
	Right Turn	404	406	100.6%	17.7	6.3	B
	Subtotal	1,097	964	87.9%	73.3	19.3	E
WB	Left Turn	448	309	69.0%	14.2	2.4	B
	Through	381	261	68.5%	8.7	1.5	A
	Right Turn						
	Subtotal	829	570	68.8%	11.7	1.8	B
Total		2,846	2,426	85.3%	39.4	7.2	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	67	102.8%	31.9	7.1	C
	Through	10	8	84.0%	25.7	22.8	C
	Right Turn	460	464	100.8%	9.5	1.3	A
	Subtotal	535	539	100.7%	12.6	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	491	364	74.2%	61.6	4.8	E
	Through	519	500	96.3%	2.1	0.3	A
	Right Turn						
	Subtotal	1,010	864	85.5%	27.2	2.3	C
WB	Left Turn						
	Through	764	502	65.7%	13.6	2.1	B
	Right Turn	1,584	945	59.7%	5.7	0.2	A
	Subtotal	2,348	1,447	61.6%	8.4	0.9	A
Total		3,893	2,850	73.2%	14.9	0.3	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	954	454	47.6%	438.5	42.4	F
	Through	45	29	64.0%	449.7	47.7	F
	Right Turn	4	3	80.0%	351.3	43.0	F
	Subtotal	1,003	486	48.5%	438.5	42.4	F
SB	Left Turn	34	31	91.8%	35.5	5.5	D
	Through	19	20	103.2%	33.5	11.5	C
	Right Turn	104	111	106.5%	15.2	4.2	B
	Subtotal	157	162	102.9%	21.3	3.7	C
EB	Left Turn	41	36	88.8%	33.0	3.6	C
	Through	601	623	103.7%	17.3	2.0	B
	Right Turn	337	330	98.0%	2.7	0.1	A
	Subtotal	979	990	101.1%	13.0	1.6	B
WB	Left Turn	20	20	100.0%	35.4	13.0	D
	Through	1,290	908	70.4%	63.4	11.4	E
	Right Turn	9	6	66.7%	92.7	36.5	F
	Subtotal	1,319	934	70.8%	63.1	11.2	E
Total		3,458	2,572	74.4%	111.5	4.5	F

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	73	81.8%	53.6	19.5	D
	Through	5	4	88.0%	21.9	27.0	C
	Right Turn	15	21	138.7%	7.1	5.2	A
	Subtotal	109	98	89.9%	42.8	14.6	D
SB	Left Turn	72	72	99.4%	32.2	5.3	C
	Through	5	9	176.0%	29.7	18.2	C
	Right Turn	17	19	110.6%	36.6	26.8	D
	Subtotal	94	99	105.5%	33.1	6.3	C
EB	Left Turn	13	10	73.8%	44.2	17.6	D
	Through	614	619	100.8%	3.3	0.9	A
	Right Turn	12	13	106.7%	2.7	3.0	A
	Subtotal	639	641	100.3%	3.8	0.9	A
WB	Left Turn	2	2	80.0%	15.5	22.8	B
	Through	1,213	857	70.6%	58.8	13.2	E
	Right Turn	36	26	71.1%	62.0	20.4	E
	Subtotal	1,251	884	70.7%	58.8	12.9	E
Total		2,093	1,722	82.3%	35.8	6.5	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	394	358	91.0%	82.3	27.7	F
	Through	37	36	98.4%	43.7	14.0	D
	Right Turn	19	18	94.7%	32.4	11.1	C
	Subtotal	450	413	91.7%	76.9	25.4	E
SB	Left Turn	24	22	93.3%	31.4	11.2	C
	Through	29	26	89.7%	37.4	11.7	D
	Right Turn	49	56	115.1%	24.5	4.0	C
	Subtotal	102	105	102.7%	29.0	4.7	C
EB	Left Turn	8	9	110.0%	41.1	9.4	D
	Through	625	641	102.6%	16.5	2.3	B
	Right Turn	68	69	101.8%	13.7	6.0	B
	Subtotal	701	719	102.6%	16.5	2.3	B
WB	Left Turn	21	16	78.1%	74.6	40.2	E
	Through	808	560	69.3%	94.1	38.1	F
	Right Turn	10	7	68.0%	147.1	120.1	F
	Subtotal	839	583	69.5%	93.6	37.9	F
Total		2,092	1,820	87.0%	55.4	15.7	E

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	2	60.0%	34.6	46.0	C
	Through						
	Right Turn	8	8	95.0%	4.9	5.3	A
	Subtotal	12	10	83.3%	23.3	41.1	C
SB	Left Turn	12	11	90.0%	31.4	21.8	C
	Through						
	Right Turn	54	49	90.4%	21.2	13.7	C
	Subtotal	66	60	90.3%	24.4	13.0	C
EB	Left Turn	19	15	80.0%	54.9	11.5	D
	Through	644	654	101.6%	6.4	2.3	A
	Right Turn	5	4	88.0%	6.1	5.9	A
	Subtotal	668	674	100.9%	7.5	2.2	A
WB	Left Turn	1	1	80.0%	8.5	20.0	A
	Through	781	679	87.0%	22.4	13.3	C
	Right Turn	5	6	112.0%	10.8	10.9	B
	Subtotal	787	686	87.1%	22.4	13.3	C
Total		1,533	1,429	93.2%	15.4	7.3	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	156	144	92.6%	36.3	9.0	D
	Through	45	44	98.7%	44.9	11.5	D
	Right Turn	371	357	96.3%	27.8	6.5	C
	Subtotal	572	546	95.5%	31.4	6.9	C
SB	Left Turn	67	74	111.0%	36.9	8.1	D
	Through	15	12	82.7%	34.2	19.5	C
	Right Turn	50	56	112.8%	36.6	5.8	D
	Subtotal	132	143	108.5%	36.0	6.1	D
EB	Left Turn	5	4	80.0%	41.0	36.4	D
	Through	597	594	99.6%	31.3	6.0	C
	Right Turn	62	64	103.9%	30.4	7.6	C
	Subtotal	664	663	99.8%	31.3	6.1	C
WB	Left Turn	161	167	103.9%	47.3	6.1	D
	Through	583	558	95.8%	22.2	5.4	C
	Right Turn	12	13	110.0%	14.5	6.9	B
	Subtotal	756	739	97.7%	27.7	4.6	C
Total		2,124	2,091	98.4%	30.3	5.0	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	24	104.3%	30.6	11.1	C
	Through	11	9	80.0%	22.8	21.9	C
	Right Turn	530	516	97.4%	23.5	8.2	C
	Subtotal	564	549	97.4%	23.8	8.0	C
SB	Left Turn	85	75	88.0%	48.8	37.2	D
	Through	75	74	99.2%	27.2	8.0	C
	Right Turn	134	129	96.4%	8.7	4.1	A
	Subtotal	294	278	94.7%	24.0	12.7	C
EB	Left Turn	58	55	94.5%	38.9	6.5	D
	Through	755	711	94.2%	15.9	7.4	B
	Right Turn	222	226	102.0%	8.4	3.2	A
	Subtotal	1,035	992	95.9%	15.5	6.2	B
WB	Left Turn	15	16	104.0%	38.5	10.9	D
	Through	516	514	99.7%	10.8	2.0	B
	Right Turn	15	19	125.3%	9.5	7.2	A
	Subtotal	546	549	100.5%	11.5	2.2	B
Total		2,439	2,369	97.1%	17.4	4.4	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	29	24	82.8%	35.0	9.2	C
	Through	2	2	120.0%	11.2	15.9	B
	Right Turn	71	62	87.3%	19.2	6.7	B
	Subtotal	102	88	86.7%	23.9	5.7	C
SB	Left Turn	5	5	104.0%	54.5	42.7	D
	Through	17	18	105.9%	40.6	28.1	D
	Right Turn	18	17	95.6%	11.0	10.2	B
	Subtotal	40	40	101.0%	30.3	17.7	C
EB	Left Turn	5	4	80.0%	37.6	31.6	D
	Through	1,338	1,096	81.9%	45.0	21.8	D
	Right Turn	27	30	109.6%	36.0	26.4	D
	Subtotal	1,370	1,130	82.5%	44.8	21.8	D
WB	Left Turn	34	42	123.5%	40.0	7.7	D
	Through	499	506	101.3%	6.9	1.5	A
	Right Turn	2	2	120.0%	5.4	4.9	A
	Subtotal	535	550	102.8%	9.5	1.7	A
Total		2,047	1,808	88.3%	32.4	13.7	C

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	61	52	84.6%	95.6	15.4	F
	Through	4,068	3,780	92.9%	53.5	12.2	D
	Right Turn	12	12	96.7%	64.1	40.8	E
	Subtotal	4,141	3,844	92.8%	54.1	12.2	D
SB	Left Turn						
	Through	1,939	1,873	96.6%	29.0	4.0	C
	Right Turn	475	491	103.4%	14.7	1.8	B
	Subtotal	2,414	2,364	97.9%	26.0	3.4	C
EB	Left Turn	1,115	738	66.2%	167.4	27.5	F
	Through						
	Right Turn	117	101	86.2%	90.4	23.9	F
	Subtotal	1,232	839	68.1%	158.2	28.9	F
WB	Left Turn						
	Through	2	0	20.0%	0.1	0.3	A
	Right Turn	5	5	104.0%	57.9	42.2	E
	Subtotal	7	6	80.0%	53.2	40.2	D
Total		7,794	7,052	90.5%	57.1	8.6	E

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	706	224	31.8%	340.2	32.6	F
	Right Turn	3	0	13.3%	49.8	133.0	E
	Subtotal	709	225	31.7%	340.3	32.7	F
SB	Left Turn	70	69	98.9%	5.5	0.7	A
	Through	306	307	100.4%	5.9	0.6	A
	Right Turn						
	Subtotal	376	376	100.1%	5.8	0.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	0	20.0%	7.7	24.4	A
	Through						
	Right Turn	297	285	95.9%	65.1	27.9	F
	Subtotal	299	285	95.4%	65.1	27.9	F
Total		1,384	886	64.0%	109.3	10.4	F

Intersection 12 **N 16th St/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	292	100.7%	15.3	7.5	C
	Through	441	429	97.3%	20.0	10.4	C
	Right Turn						
	Subtotal	731	721	98.7%	18.2	9.3	C
SB	Left Turn						
	Through	109	106	96.9%	7.1	0.9	A
	Right Turn	9	8	93.3%	5.3	3.7	A
	Subtotal	118	114	96.6%	7.0	0.9	A
EB	Left Turn	9	8	84.4%	6.2	2.1	A
	Through						
	Right Turn	64	62	96.9%	3.1	0.7	A
	Subtotal	73	70	95.3%	3.5	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		922	905	98.1%	15.6	7.4	C

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	34	111.0%	15.1	4.0	B
	Through	13	16	123.1%	12.7	5.6	B
	Right Turn						
	Subtotal	44	50	114.5%	14.3	4.0	B
SB	Left Turn						
	Through	158	132	83.5%	14.4	2.3	B
	Right Turn	65	53	81.2%	8.6	3.1	A
	Subtotal	223	185	82.9%	12.7	1.9	B
EB	Left Turn						
	Through	8	4	55.0%	10.1	11.1	B
	Right Turn						
	Subtotal	8	4	55.0%	10.1	11.1	B
WB	Left Turn	79	70	88.6%	9.9	1.2	A
	Through	1,970	1,888	95.8%	13.7	1.7	B
	Right Turn	7	6	91.4%	5.3	2.6	A
	Subtotal	2,056	1,964	95.5%	13.5	1.7	B
Total		2,331	2,204	94.5%	13.5	1.4	B

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	211	221	104.8%	20.6	4.3	C
	Right Turn	49	40	81.6%	16.9	6.2	B
	Subtotal	260	261	100.5%	20.0	4.0	B
SB	Left Turn	495	447	90.3%	42.4	11.6	D
	Through	419	296	70.5%	29.0	9.4	C
	Right Turn	1	3	320.0%	18.9	25.5	B
	Subtotal	915	746	81.5%	37.0	10.9	D
EB	Left Turn	40	42	106.0%	22.6	5.8	C
	Through	9	8	93.3%	17.9	12.2	B
	Right Turn	11	11	101.8%	4.9	4.4	A
	Subtotal	60	62	103.3%	18.7	6.1	B
WB	Left Turn	83	72	86.3%	24.4	4.6	C
	Through	3	4	133.3%	22.9	20.9	C
	Right Turn	252	218	86.3%	9.5	1.5	A
	Subtotal	338	293	86.7%	13.4	2.3	B
Total		1,573	1,362	86.6%	27.8	7.0	C

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	6	8.8%	8.0	5.2	A
	Through	362	342	94.6%	9.0	0.6	A
	Right Turn	8	28	350.0%	7.6	1.5	A
	Subtotal	438	376	85.9%	8.8	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	87	122	140.2%	24.6	4.2	C
	Through	602	507	84.2%	24.5	4.4	C
	Right Turn						
	Subtotal	689	629	91.3%	24.5	4.4	C
WB	Left Turn						
	Through	333	396	118.8%	11.0	2.4	B
	Right Turn	6	6	106.7%	6.6	4.5	A
	Subtotal	339	402	118.6%	10.9	2.3	B
Total		1,466	1,407	96.0%	16.5	1.9	C

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	179	110	61.7%	10.7	3.7	B
	Right Turn						
	Subtotal	179	110	61.7%	10.7	3.7	B
SB	Left Turn						
	Through	549	404	73.7%	18.7	3.1	B
	Right Turn	11	5	47.3%	8.8	6.6	A
	Subtotal	560	410	73.1%	18.6	3.1	B
EB	Left Turn	56	29	51.4%	25.9	4.1	C
	Through						
	Right Turn	600	351	58.5%	22.7	2.9	C
	Subtotal	656	380	57.9%	22.9	2.9	C
WB	Left Turn	61	116	189.5%	22.1	5.5	C
	Through	625	602	96.3%	13.8	5.5	B
	Right Turn	236	275	116.6%	7.3	2.6	A
	Subtotal	922	992	107.6%	12.9	4.4	B
Total		2,317	1,892	81.7%	16.0	2.4	B

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	6	50.9%	26.5	22.4	C
	Through	762	572	75.1%	9.3	2.7	A
	Right Turn	224	136	60.9%	5.6	1.6	A
	Subtotal	997	714	71.6%	8.9	2.6	A
SB	Left Turn	8	9	110.0%	38.2	38.2	D
	Through	844	366	43.4%	45.7	23.8	D
	Right Turn	5	0	8.0%	16.0	49.2	B
	Subtotal	857	376	43.8%	45.7	23.6	D
EB	Left Turn	5	4	72.0%	10.7	12.9	B
	Through	35	35	100.6%	19.7	6.8	B
	Right Turn	5	4	88.0%	10.2	17.2	B
	Subtotal	45	43	96.0%	19.3	7.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,899	1,133	59.7%	21.6	7.8	C

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	480	365	76.1%	22.7	1.3	C
	Right Turn	30	15	50.7%	7.3	2.6	A
	Subtotal	510	380	74.6%	22.1	1.2	C
SB	Left Turn	221	178	80.4%	83.0	31.4	F
	Through	681	408	60.0%	46.4	12.3	D
	Right Turn						
	Subtotal	902	586	65.0%	58.2	19.8	E
EB	Left Turn	64	63	98.8%	10.0	1.4	A
	Through	176	91	51.8%	8.7	1.6	A
	Right Turn	27	28	103.7%	6.2	2.1	A
	Subtotal	267	182	68.3%	8.8	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,679	1,149	68.4%	37.6	7.3	D

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	592	437	73.9%	19.9	4.9	B
	Through	1,034	630	61.0%	14.1	2.3	B
	Right Turn						
	Subtotal	1,626	1,068	65.7%	16.5	3.4	B
EB	Left Turn	179	112	62.8%	6.9	2.0	A
	Through	190	143	75.2%	6.3	1.2	A
	Right Turn	131	117	89.2%	3.9	0.7	A
	Subtotal	500	372	74.4%	5.7	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,126	1,440	67.7%	13.7	2.5	B

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	701	738	105.2%	7.6	1.0	A
	Right Turn	225	216	95.8%	8.4	1.2	A
	Subtotal	926	953	102.9%	7.8	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	163	105	64.5%	9.5	1.3	A
	Through	666	515	77.3%	8.9	0.7	A
	Right Turn						
	Subtotal	829	620	74.8%	9.0	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,755	1,573	89.6%	8.3	0.7	A

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	15.7	16.9	B
	Through	906	634	69.9%	12.7	4.0	B
	Right Turn						
	Subtotal	911	638	70.0%	12.7	4.0	B
SB	Left Turn						
	Through						
	Right Turn	879	362	41.2%	60.3	25.1	E
	Subtotal	879	362	41.2%	60.3	25.1	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,706	1,670	61.7%	28.0	7.2	C
	Right Turn	49	34	69.4%	10.1	3.8	B
	Subtotal	2,755	1,704	61.8%	27.6	7.1	C
Total		4,545	2,704	59.5%	28.4	7.0	C

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	140	73.3%	34.9	8.8	C
	Through	427	323	75.7%	35.5	8.4	D
	Right Turn						
	Subtotal	618	463	75.0%	35.2	8.2	D
SB	Left Turn						
	Through	143	96	66.9%	28.1	7.4	C
	Right Turn	565	338	59.9%	17.6	7.1	B
	Subtotal	708	434	61.3%	19.8	7.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	8	46.7%	43.7	19.9	D
	Through	1,999	1,292	64.6%	62.5	6.7	E
	Right Turn	83	51	61.7%	60.4	7.8	E
	Subtotal	2,100	1,351	64.3%	62.4	6.4	E
Total		3,426	2,248	65.6%	48.5	4.4	D

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	866	746	86.1%	7.9	0.6	A
	Right Turn	299	258	86.3%	20.6	9.2	C
	Subtotal	1,165	1,004	86.2%	11.3	2.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	159	130	81.5%	50.3	10.0	D
	Through	1,801	1,127	62.6%	72.3	9.4	E
	Right Turn						
	Subtotal	1,960	1,257	64.1%	70.1	9.5	E
Total		3,125	2,261	72.3%	43.8	4.6	D

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	398	420	105.5%	31.7	14.0	C
	Through	798	876	109.7%	16.0	4.3	B
	Right Turn						
	Subtotal	1,196	1,296	108.3%	21.2	7.7	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,562	892	57.1%	191.5	54.9	F
	Right Turn	128	81	63.4%	170.3	63.0	F
	Subtotal	1,690	973	57.6%	189.8	55.4	F
Total		2,886	2,268	78.6%	91.8	20.5	F

Intersection 31 **3rd St-I-5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	0	0.0%	0.0	0.0	A
	Through	529	491	92.9%	42.1	13.6	D
	Right Turn	27	26	94.8%	16.5	9.5	B
	Subtotal	561	517	92.1%	40.8	12.9	D
SB	Left Turn	232	90	38.6%	422.0	66.5	F
	Through	334	86	25.9%	515.1	81.0	F
	Right Turn						
	Subtotal	566	176	31.1%	465.3	60.9	F
EB	Left Turn	5	1	16.0%	274.2	284.4	F
	Through	859	540	62.8%	179.1	29.7	F
	Right Turn	468	361	77.2%	71.4	26.5	E
	Subtotal	1,332	902	67.7%	136.1	22.1	F
NB	Left Turn						
	Through						
	Right Turn	146	149	101.9%	16.9	11.7	B
	Subtotal	146	149	101.9%	16.9	11.7	B
Total		2,605	1,743	66.9%	129.9	14.8	F

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	252	258	102.2%	18.1	5.0	B
	Right Turn	385	379	98.4%	15.6	4.5	B
	Subtotal	637	636	99.9%	16.6	4.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	659	378	57.4%	90.4	5.7	F
	Through	1,092	863	79.0%	39.4	2.8	D
	Right Turn	24	6	26.7%	28.7	20.1	C
	Subtotal	1,775	1,248	70.3%	54.8	2.1	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,412	1,884	78.1%	42.0	1.7	D

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	92	79	86.1%	9.7	2.6	A
	Through	933	802	85.9%	10.1	1.0	B
	Right Turn						
	Subtotal	1,025	881	85.9%	10.0	1.0	B
EB	Left Turn						
	Through	1,013	892	88.1%	26.6	1.3	C
	Right Turn	175	151	86.4%	14.7	2.2	B
	Subtotal	1,188	1,044	87.8%	24.8	1.1	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,213	1,924	87.0%	18.1	0.9	B

Intersection 34 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	117	122	104.3%	30.3	3.3	C
	Through	135	132	97.8%	17.7	5.0	B
	Right Turn	16	20	125.0%	2.2	1.0	A
	Subtotal	268	274	102.2%	22.1	3.0	C
SB	Left Turn	53	51	96.6%	33.4	4.0	C
	Through	82	78	95.1%	22.2	3.9	C
	Right Turn	14	14	100.0%	1.7	1.0	A
	Subtotal	149	143	96.1%	24.3	2.9	C
EB	Left Turn	28	31	110.0%	38.6	13.0	D
	Through	279	299	107.1%	18.7	3.4	B
	Right Turn	71	74	104.8%	3.3	0.8	A
	Subtotal	378	404	106.9%	17.3	3.1	B
WB	Left Turn	126	68	53.7%	32.5	5.9	C
	Through	401	244	60.9%	17.7	2.1	B
	Right Turn	78	51	65.6%	2.6	0.5	A
	Subtotal	605	363	60.0%	18.4	2.3	B
Total		1,400	1,184	84.6%	19.6	2.1	B

Intersection 35 **5th St/C St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	26	28	107.7%	13.5	4.8	B
	Through	11	9	83.6%	12.2	10.8	B
	Right Turn	195	205	105.2%	4.4	0.3	A
	Subtotal	232	242	104.5%	5.9	0.8	A
SB	Left Turn	7	5	68.6%	17.5	15.7	B
	Through	3	3	106.7%	10.4	12.9	B
	Right Turn	1	1	80.0%	0.8	1.7	A
	Subtotal	11	9	80.0%	16.1	10.6	B
EB	Left Turn	3	2	80.0%	11.7	16.8	B
	Through	327	345	105.6%	4.7	0.9	A
	Right Turn	18	17	93.3%	2.1	2.1	A
	Subtotal	348	364	104.7%	4.7	0.9	A
WB	Left Turn	12	9	73.3%	18.7	11.1	B
	Through	578	325	56.2%	8.1	1.4	A
	Right Turn	14	8	57.1%	4.5	3.0	A
	Subtotal	604	342	56.6%	8.4	1.3	A
Total		1,195	957	80.1%	6.4	0.4	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	685	518	75.7%	20.8	3.2	C
	Right Turn	82	51	62.4%	16.4	3.7	B
	Subtotal	767	570	74.3%	20.4	3.0	C
SB	Left Turn	380	148	39.1%	286.5	36.0	F
	Through	600	221	36.8%	277.1	41.0	F
	Right Turn						
	Subtotal	980	369	37.7%	280.5	38.4	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	257	190	74.1%	33.0	26.9	C
	Through						
	Right Turn	103	89	86.6%	8.1	8.3	A
	Subtotal	360	280	77.7%	25.0	20.9	C
Total		2,107	1,218	57.8%	99.1	8.2	F

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	9	61.3%	23.5	14.0	C
	Through	461	336	72.8%	7.0	0.9	A
	Right Turn	68	57	83.5%	3.9	0.6	A
	Subtotal	544	402	73.8%	7.0	0.8	A
SB	Left Turn	258	190	73.5%	142.7	62.6	F
	Through	496	448	90.4%	133.8	67.5	F
	Right Turn	89	42	46.7%	121.8	72.4	F
	Subtotal	843	680	80.6%	135.8	66.2	F
EB	Left Turn	2	0	20.0%	3.7	11.7	A
	Through	330	137	41.6%	23.8	19.1	C
	Right Turn	130	54	41.2%	35.9	25.9	D
	Subtotal	462	191	41.4%	27.3	20.6	C
WB	Left Turn	67	59	87.8%	87.5	77.3	F
	Through	256	247	96.6%	20.4	8.7	C
	Right Turn	313	280	89.6%	16.3	5.6	B
	Subtotal	636	586	92.2%	23.6	8.5	C
Total		2,485	1,859	74.8%	58.7	18.8	E

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	94	85	90.6%	35.3	6.7	D
	Through	274	230	84.1%	17.3	4.2	B
	Right Turn	271	225	83.1%	15.4	3.8	B
	Subtotal	639	541	84.6%	19.5	2.9	B
SB	Left Turn	5	6	112.0%	48.9	38.0	D
	Through	319	338	105.8%	25.3	6.3	C
	Right Turn	39	35	90.3%	24.6	7.0	C
	Subtotal	363	378	104.2%	25.5	6.4	C
EB	Left Turn	267	198	74.3%	30.5	3.3	C
	Through	173	135	78.2%	16.9	3.3	B
	Right Turn	5	5	104.0%	13.0	14.9	B
	Subtotal	445	339	76.1%	24.8	2.6	C
WB	Left Turn	5	6	120.0%	31.5	20.0	C
	Through	186	133	71.4%	32.5	5.9	C
	Right Turn	29	25	86.9%	16.7	7.9	B
	Subtotal	220	164	74.5%	29.9	5.3	C
Total		1,667	1,422	85.3%	23.5	3.4	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	85	19	22.1%	507.2	160.1	F
	Through	320	148	46.1%	250.2	124.6	F
	Right Turn						
	Subtotal	405	166	41.1%	279.7	127.6	F
SB	Left Turn	35	39	110.9%	43.4	21.7	D
	Through	212	202	95.3%	44.9	18.3	D
	Right Turn	7	5	68.6%	20.3	16.5	C
	Subtotal	254	246	96.7%	44.4	18.4	D
EB	Left Turn						
	Through	691	434	62.9%	143.6	38.9	F
	Right Turn	191	111	58.2%	129.3	40.5	F
	Subtotal	882	546	61.9%	140.6	39.0	F
SW	Left Turn	27	27	99.3%	30.7	8.3	C
	Through	2,125	2,098	98.7%	30.7	2.1	C
	Right Turn	10	11	108.0%	31.9	14.9	C
	Subtotal	2,162	2,136	98.8%	30.8	2.1	C
Total		3,703	3,093	83.5%	62.4	9.6	E

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	113	118	104.1%	15.9	2.3	B
	Through	3,125	3,167	101.3%	15.8	0.8	B
	Right Turn	2	1	40.0%	3.6	6.9	A
	Subtotal	3,240	3,285	101.4%	15.8	0.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	678	439	64.8%	29.0	1.4	C
	Through	3	2	66.7%	18.8	18.3	B
	Right Turn						
	Subtotal	681	441	64.8%	29.0	1.4	C
WB	Left Turn						
	Through	22	16	74.5%	11.8	5.6	B
	Right Turn	3	3	106.7%	5.0	7.0	A
	Subtotal	25	20	78.4%	11.1	5.8	B
Total		3,946	3,746	94.9%	17.4	0.7	B

Intersection 38 **5th St/Bannon St-N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	388	329	84.8%	7.9	1.2	A
	Through						
	Right Turn	9	10	106.7%	3.3	1.9	A
	Subtotal	397	339	85.3%	7.8	1.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	17	21	124.7%	5.6	2.3	A
	Right Turn	143	153	107.1%	3.4	0.6	A
	Subtotal	160	174	109.0%	3.6	0.7	A
WB	Left Turn	8	2	25.0%	2.9	4.6	A
	Through	323	258	79.9%	7.7	1.9	A
	Right Turn						
	Subtotal	331	260	78.5%	7.7	1.9	A
Total		888	773	87.1%	6.8	1.1	A

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	33	84.1%	7.1	2.2	A
	Through						
	Right Turn	422	314	74.5%	6.1	0.5	A
	Subtotal	461	347	75.3%	6.3	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	23	22	95.7%	9.1	3.4	A
	Right Turn	29	32	110.3%	3.8	0.6	A
	Subtotal	52	54	103.8%	5.9	1.7	A
WB	Left Turn	27	23	84.4%	22.3	6.1	C
	Through	292	233	79.7%	8.2	1.9	A
	Right Turn						
	Subtotal	319	256	80.1%	9.4	1.4	A
Total		832	657	78.9%	7.5	0.7	A

Intersection 40 **8th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	4.2	3.9	A
	Through						
	Right Turn	229	167	73.0%	5.6	0.8	A
	Subtotal	234	171	73.0%	5.7	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	444	366	82.4%	5.5	0.4	A
	Right Turn	5	2	40.0%	2.0	2.7	A
	Subtotal	449	368	82.0%	5.5	0.4	A
WB	Left Turn	5	4	80.0%	7.1	5.1	A
	Through	215	159	74.0%	6.5	1.2	A
	Right Turn						
	Subtotal	220	163	74.2%	6.6	1.1	A
Total		903	702	77.7%	5.8	0.4	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	20.2	22.8	C
	Through	379	324	85.6%	18.7	5.9	B
	Right Turn	391	330	84.5%	20.1	11.3	C
	Subtotal	775	658	84.9%	19.5	8.7	B
SB	Left Turn	20	0	0.0%	482.8	108.1	F
	Through	22	2	7.3%	452.7	187.8	F
	Right Turn	1	0	0.0%	217.8	279.4	F
	Subtotal	43	2	3.7%	42.2	97.7	D
EB	Left Turn	210	153	73.0%	23.3	4.9	C
	Through	471	381	80.9%	15.1	3.4	B
	Right Turn	5	3	64.0%	4.3	6.2	A
	Subtotal	686	538	78.4%	17.5	2.8	B
WB	Left Turn	219	129	59.0%	49.2	31.9	D
	Through	110	57	52.0%	18.3	6.2	B
	Right Turn	3	0	0.0%	0.0	0.0	A
	Subtotal	332	186	56.1%	40.5	25.2	D
Total		1,836	1,384	75.4%	21.6	6.8	C

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	394	349	88.6%	1.8	0.3	A
	Right Turn						
	Subtotal	394	349	88.6%	1.8	0.3	A
SB	Left Turn	155	144	93.2%	5.7	1.0	A
	Through	108	107	99.3%	1.6	0.6	A
	Right Turn						
	Subtotal	263	252	95.7%	4.0	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn	309	308	99.7%	11.3	2.4	B
	Subtotal	309	308	99.7%	11.3	2.4	B
Total		966	909	94.1%	5.7	1.1	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	44	67.1%	37.0	5.5	D
	Through	299	246	82.4%	20.5	5.0	C
	Right Turn	152	114	75.3%	17.4	4.3	B
	Subtotal	516	404	78.4%	21.4	4.1	C
SB	Left Turn	43	41	95.8%	29.6	3.7	C
	Through	106	112	105.3%	14.8	3.8	B
	Right Turn	2	3	160.0%	3.1	4.0	A
	Subtotal	151	156	103.3%	18.6	2.5	B
EB	Left Turn	4	2	60.0%	4.7	5.5	A
	Through	142	136	95.5%	21.3	2.8	C
	Right Turn	20	18	88.0%	15.1	4.6	B
	Subtotal	166	156	93.7%	20.4	2.5	C
WB	Left Turn	19	14	75.8%	28.2	6.1	C
	Through	8	9	110.0%	21.4	16.5	C
	Right Turn	94	94	100.4%	10.8	1.6	B
	Subtotal	121	118	97.2%	14.2	2.1	B
Total		954	834	87.4%	19.7	2.2	B

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	28	86.3%	7.2	2.3	A
	Through	5	4	80.0%	6.6	4.3	A
	Right Turn	65	57	87.4%	5.3	1.4	A
	Subtotal	102	88	86.7%	6.0	1.6	A
SB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	5	8	160.0%	6.3	5.0	A
	Right Turn	11	10	94.5%	4.7	2.1	A
	Subtotal	17	18	108.2%	6.4	2.1	A
EB	Left Turn	26	25	96.9%	3.6	1.0	A
	Through	287	248	86.6%	1.9	0.4	A
	Right Turn	24	20	81.7%	1.4	0.8	A
	Subtotal	337	293	87.0%	2.0	0.4	A
WB	Left Turn	27	22	81.5%	6.6	5.8	A
	Through	78	79	101.5%	2.5	0.6	A
	Right Turn	42	36	86.7%	2.4	0.5	A
	Subtotal	147	138	93.6%	2.9	0.6	A
Total		603	538	89.2%	3.1	0.5	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	37	88.6%	14.9	6.4	B
	Through	355	266	74.8%	29.7	9.5	D
	Right Turn	206	146	71.1%	27.8	9.5	D
	Subtotal	603	449	74.5%	27.9	9.1	D
SB	Left Turn	1	1	80.0%	1.7	3.9	A
	Through	62	60	96.8%	9.9	1.8	A
	Right Turn	1	2	200.0%	2.0	4.2	A
	Subtotal	64	63	98.1%	9.9	1.7	A
EB	Left Turn	114	96	84.2%	17.0	10.7	C
	Through	178	156	87.4%	18.0	7.4	C
	Right Turn	61	56	91.8%	15.7	11.3	C
	Subtotal	353	308	87.1%	17.3	9.0	C
WB	Left Turn	91	82	90.1%	10.2	2.3	B
	Through	104	100	96.5%	11.5	2.0	B
	Right Turn	5	5	104.0%	8.4	7.1	A
	Subtotal	200	188	93.8%	10.9	2.0	B
Total		1,220	1,007	82.6%	20.5	6.7	C

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	134	114	85.4%	8.5	1.6	A
	Through	240	213	88.7%	5.4	1.3	A
	Right Turn						
	Subtotal	374	327	87.5%	6.5	1.0	A
SB	Left Turn						
	Through	142	142	99.7%	6.4	0.9	A
	Right Turn	66	75	113.3%	4.8	1.1	A
	Subtotal	208	216	104.0%	5.9	0.7	A
EB	Left Turn	292	231	79.2%	8.3	0.9	A
	Through						
	Right Turn	93	72	77.0%	5.8	1.0	A
	Subtotal	385	303	78.6%	7.8	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		967	846	87.5%	6.8	0.5	A

Intersection 47 **Railyards Blvd/Jibboom St** **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	401	409	101.9%	0.7	0.2	A
	Right Turn						
	Subtotal	401	409	101.9%	0.7	0.2	A
WB	Left Turn						
	Through	606	562	92.7%	1.6	0.1	A
	Right Turn						
	Subtotal	606	562	92.7%	1.6	0.1	A
Total		1,007	970	96.4%	1.2	0.1	A

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	123	124	100.8%	25.9	6.4	C
	Through	111	106	95.1%	11.4	2.1	B
	Right Turn						
	Subtotal	234	230	98.1%	19.4	4.1	B
SB	Left Turn	38	31	82.1%	28.1	3.8	C
	Through	70	77	109.7%	11.1	2.6	B
	Right Turn						
	Subtotal	108	108	100.0%	16.0	2.6	B
EB	Left Turn						
	Through	326	336	103.1%	11.5	1.5	B
	Right Turn	75	72	96.0%	5.7	1.5	A
	Subtotal	401	408	101.7%	10.4	1.4	B
WB	Left Turn	1	0	40.0%	6.1	3.8	A
	Through	483	438	90.7%	15.6	2.0	B
	Right Turn	283	250	88.2%	9.2	1.3	A
	Subtotal	767	688	89.7%	13.3	1.6	B
Total		1,510	1,434	94.9%	13.7	1.5	B

Intersection 49 **PH Garage Entry/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	227	212	93.4%	11.3	1.2	B
	Through						
	Right Turn	131	118	90.1%	8.1	1.5	A
	Subtotal	358	330	92.2%	10.1	1.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	263	506	192.2%	8.9	2.0	A
	Right Turn	111	108	97.7%	9.1	3.0	A
	Subtotal	374	614	164.2%	8.9	2.2	A
WB	Left Turn	105	81	77.3%	20.2	5.9	C
	Through	375	364	97.1%	7.8	1.4	A
	Right Turn						
	Subtotal	480	445	92.8%	10.1	2.0	B
Total		1,212	1,389	114.6%	9.6	1.3	A

Intersection 50 **HSB Entry-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	11	135.0%	21.1	8.7	C
	Through						
	Right Turn	278	270	97.0%	12.8	2.8	B
	Subtotal	286	280	98.0%	13.0	2.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	678	661	97.5%	11.4	3.5	B
	Right Turn	1	2	240.0%	4.8	9.0	A
	Subtotal	679	663	97.7%	11.4	3.5	B
WB	Left Turn	11	8	69.1%	24.4	16.6	C
	Through	536	443	82.7%	9.6	1.3	A
	Right Turn						
	Subtotal	547	451	82.4%	9.8	1.3	A
Total		1,512	1,394	92.2%	11.2	2.2	B

Intersection 51 **5th St-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	147	117	79.7%	94.5	15.3	F
	Through	356	298	83.8%	47.1	8.3	D
	Right Turn	40	31	78.0%	39.6	9.8	D
	Subtotal	543	447	82.3%	59.0	9.0	E
SB	Left Turn	20	17	84.0%	68.5	33.7	E
	Through	108	110	102.2%	52.9	21.8	D
	Right Turn	17	18	108.2%	29.9	22.5	C
	Subtotal	145	146	100.4%	51.9	20.1	D
EB	Left Turn	52	38	73.1%	57.8	9.9	E
	Through	1,140	870	76.3%	38.4	10.0	D
	Right Turn	262	186	70.8%	32.6	16.4	C
	Subtotal	1,454	1,094	75.2%	38.1	10.2	D
WB	Left Turn	19	14	73.7%	72.7	42.0	E
	Through	479	391	81.6%	12.6	2.4	B
	Right Turn	108	85	78.9%	10.8	4.4	B
	Subtotal	606	490	80.9%	14.1	3.3	B
Total		2,748	2,176	79.2%	37.8	6.5	D

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	45	39	86.2%	8.4	4.0	A
	Subtotal	45	39	86.2%	8.4	4.0	A
EB	Left Turn						
	Through	1,200	913	76.1%	12.7	4.4	B
	Right Turn						
	Subtotal	1,200	913	76.1%	12.7	4.4	B
WB	Left Turn						
	Through	561	457	81.5%	2.8	0.6	A
	Right Turn	56	42	74.3%	1.6	0.5	A
	Subtotal	617	499	80.8%	2.7	0.5	A
Total		1,862	1,451	77.9%	9.2	2.8	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	20	68.0%	41.6	15.8	D
	Through	329	256	77.9%	32.0	5.2	C
	Right Turn	270	222	82.4%	9.7	2.6	A
	Subtotal	629	499	79.4%	22.4	3.2	C
SB	Left Turn	74	66	89.2%	46.9	9.7	D
	Through	113	110	97.3%	27.6	7.2	C
	Right Turn	27	28	102.2%	23.0	21.5	C
	Subtotal	214	204	95.1%	32.5	6.3	C
EB	Left Turn	259	191	73.7%	55.8	8.4	E
	Through	917	694	75.7%	43.1	9.2	D
	Right Turn	24	15	61.7%	23.7	14.1	C
	Subtotal	1,200	900	75.0%	45.6	9.1	D
WB	Left Turn	247	191	77.4%	31.8	5.3	C
	Through	560	453	80.9%	19.9	4.2	B
	Right Turn	15	12	80.0%	22.4	21.8	C
	Subtotal	822	656	79.9%	23.4	4.1	C
Total		2,865	2,259	78.8%	32.8	4.0	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	175	182	104.2%	57.1	11.1	E
	Through	161	160	99.4%	56.2	14.5	E
	Right Turn	182	176	96.9%	46.6	12.0	D
	Subtotal	518	519	100.2%	53.3	11.4	D
SB	Left Turn	2	2	120.0%	23.8	31.5	C
	Through	203	192	94.8%	35.4	6.2	D
	Right Turn	30	27	90.7%	12.8	8.0	B
	Subtotal	235	222	94.5%	32.8	5.9	C
EB	Left Turn	208	159	76.3%	30.1	8.3	C
	Through	529	391	73.9%	33.0	10.7	C
	Right Turn	524	424	80.8%	8.1	1.8	A
	Subtotal	1,261	973	77.2%	22.0	4.8	C
WB	Left Turn	53	46	86.0%	117.5	20.7	F
	Through	617	448	72.5%	152.1	28.9	F
	Right Turn	5	3	64.0%	115.4	38.8	F
	Subtotal	675	496	73.5%	149.1	28.9	F
Total		2,689	2,210	82.2%	59.0	5.6	E

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	2	32.0%	21.5	47.2	C
	Through						
	Right Turn	5	3	64.0%	49.8	77.1	E
	Subtotal	10	5	48.0%	47.2	72.3	E
EB	Left Turn	229	169	73.7%	26.9	5.4	D
	Through	484	401	82.8%	4.3	0.9	A
	Right Turn						
	Subtotal	713	570	79.9%	11.0	1.9	B
WB	Left Turn						
	Through	670	509	76.0%	105.9	35.0	F
	Right Turn						
	Subtotal	670	509	76.0%	105.9	35.0	F
Total		1,393	1,084	77.8%	55.5	15.1	F

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	3	56.0%	16.0	18.6	B
	Through						
	Right Turn	5	3	56.0%	14.5	17.9	B
	Subtotal	10	6	56.0%	20.4	19.0	C
EB	Left Turn	398	323	81.1%	27.8	5.2	C
	Through						
	Right Turn						
	Subtotal	398	323	81.1%	27.8	5.2	C
WB	Left Turn						
	Through	593	524	88.4%	28.2	19.2	C
	Right Turn						
	Subtotal	593	524	88.4%	28.2	19.2	C
Total		1,001	853	85.2%	28.0	11.8	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	234	231	98.8%	19.8	8.1	C
	Right Turn	319	322	100.8%	16.0	8.4	C
	Subtotal	553	553	100.0%	17.6	8.3	C
SB	Left Turn						
	Through	146	149	101.9%	9.4	1.6	A
	Right Turn						
	Subtotal	146	149	101.9%	9.4	1.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	193	147	76.1%	6.7	0.9	A
	Through						
	Right Turn						
	Subtotal	193	147	76.1%	6.7	0.9	A
Total		892	848	95.1%	14.4	5.9	B

Intersection 58 **Hungtington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	114	96	84.6%	25.8	24.8	D
	Through						
	Right Turn	72	57	79.4%	17.2	13.9	C
	Subtotal	186	154	82.6%	22.2	19.6	C
EB	Left Turn	91	103	113.0%	8.1	10.3	A
	Through	310	296	95.4%	6.7	14.8	A
	Right Turn						
	Subtotal	401	398	99.4%	7.0	13.5	A
WB	Left Turn						
	Through	160	124	77.5%	1.5	0.4	A
	Right Turn	284	237	83.4%	0.5	0.1	A
	Subtotal	444	361	81.3%	0.8	0.2	A
Total		1,031	913	88.5%	6.9	8.2	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	0	0.0%	0.0	0.0	A
	Through	131	154	117.3%	19.6	7.2	C
	Right Turn	35	115	328.0%	16.1	8.9	C
	Subtotal	181	268	148.3%	18.1	7.8	C
SB	Left Turn	26	9	33.8%	17.7	9.0	C
	Through	6	20	326.7%	9.3	2.5	A
	Right Turn	9	10	111.1%	12.1	2.3	B
	Subtotal	41	38	93.7%	12.5	2.3	B
EB	Left Turn	50	73	145.6%	44.0	14.8	E
	Through	482	404	83.9%	47.3	11.4	E
	Right Turn	15	2	13.3%	20.8	29.4	C
	Subtotal	547	479	87.6%	46.8	11.8	E
WB	Left Turn	30	34	113.3%	27.3	8.0	D
	Through	397	340	85.6%	29.4	8.2	D
	Right Turn	5	4	80.0%	17.0	18.0	C
	Subtotal	432	378	87.5%	29.2	7.7	D
Total		1,201	1,164	96.9%	33.3	7.4	D

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	159	157	98.6%	50.8	10.8	D
	Through	321	252	78.5%	47.0	10.9	D
	Right Turn	28	19	67.1%	38.4	23.6	D
	Subtotal	508	428	84.2%	48.2	9.1	D
SB	Left Turn	197	158	80.2%	83.0	36.8	F
	Through	339	301	88.8%	49.1	16.7	D
	Right Turn	5	3	64.0%	22.1	16.6	C
	Subtotal	541	462	85.5%	60.0	21.5	E
EB	Left Turn	65	55	84.3%	92.1	43.4	F
	Through	278	246	88.3%	41.7	14.1	D
	Right Turn	200	210	104.8%	38.6	15.3	D
	Subtotal	543	510	93.9%	46.1	12.3	D
WB	Left Turn	52	32	60.8%	92.7	49.4	F
	Through	268	212	79.0%	42.2	11.9	D
	Right Turn	193	158	81.7%	36.7	13.9	D
	Subtotal	513	401	78.1%	44.5	15.2	D
Total		2,105	1,801	85.5%	49.2	8.5	D

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	244	200	82.0%	100.2	62.4	F
	Through	331	329	99.3%	85.8	64.5	F
	Right Turn						
	Subtotal	575	529	92.0%	91.4	64.0	F
SB	Left Turn						
	Through	229	205	89.6%	24.3	15.3	C
	Right Turn	149	111	74.6%	17.1	11.0	B
	Subtotal	378	316	83.7%	21.7	13.7	C
EB	Left Turn	214	164	76.6%	22.5	7.9	C
	Through						
	Right Turn	361	312	86.5%	23.6	15.0	C
	Subtotal	575	476	82.9%	23.4	12.5	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,528	1,322	86.5%	47.2	22.8	D

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	152	118	77.4%	108.4	38.3	F
	Through	473	388	81.9%	115.4	41.7	F
	Right Turn	163	126	77.1%	107.4	38.8	F
	Subtotal	788	631	80.1%	112.4	39.1	F
SB	Left Turn	26	9	35.4%	46.4	26.0	D
	Through	550	521	94.7%	28.3	4.4	C
	Right Turn	15	10	66.7%	23.3	15.7	C
	Subtotal	591	540	91.4%	28.5	4.3	C
EB	Left Turn	30	35	116.0%	46.5	22.0	D
	Through	216	197	91.3%	42.2	17.5	D
	Right Turn	186	180	96.6%	38.4	16.7	D
	Subtotal	432	412	95.3%	41.1	17.7	D
WB	Left Turn	202	146	72.1%	80.8	33.2	F
	Through	58	47	80.7%	77.7	31.9	E
	Right Turn	5	8	152.0%	59.9	27.2	E
	Subtotal	265	200	75.5%	79.7	31.4	E
Total		2,076	1,782	85.9%	66.3	15.2	E

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Baseline Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	135	113	83.6%	136.2	107.9	F
	Through	610	558	91.5%	72.0	64.7	F
	Right Turn						
	Subtotal	745	671	90.1%	82.8	71.7	F
SB	Left Turn						
	Through	575	483	84.0%	4.5	2.1	A
	Right Turn	87	91	104.8%	9.2	5.3	A
	Subtotal	662	574	86.7%	5.3	2.7	A
EB	Left Turn						
	Through						
	Right Turn	268	216	80.7%	13.1	2.8	B
	Subtotal	268	216	80.7%	13.1	2.8	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,675	1,462	87.3%	37.5	25.0	E

Daily VMT - Railyards Specific Plan Land Use Variant Trips
Base Year Plus Railyards Specific Plan Land Use Variant

Daily VMT for Railyards Specific Plan Land Use Variant			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	377
2	>5	<=10	3,444
3	>10	<=15	16,069
4	>15	<=20	124,360
5	>20	<=25	71,757
6	>25	<=30	38,339
7	>30	<=35	53,578
8	>35	<=40	66,260
9	>40	<=45	82,013
10	>45	<=50	81,199
11	>50	<=55	125,912
12	>55	<=60	198,256
13	>60	<=65	75,298
14	>65	<=70	14,833
15	>70	<=75	0
16	>75		0
Railyards SP VMT Within SACMET Model Boundary			951,695
Railyards SP VMT Beyond SACMET Model Boundary			76,599
Total Railyards SP VMT			**1,028,294**
Total Railyards SP Vehicle Trips			121,992
Average Railyards SP VMT Per Trip			7.8

Note:

Includes all vehicle trips generated and attracted to Railyards Specific Plan, including internal vehicle trips that remain within the plan area.

Trip lengths include distances beyond SACMET model boundary

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	859	879	102.4%	28.8	1.1	C
	Through	69	74	106.7%	33.6	5.0	C
	Right Turn	519	521	100.3%	17.0	3.7	B
	Subtotal	1,447	1,474	101.8%	25.0	1.4	C
EB	Left Turn						
	Through	831	503	60.5%	197.0	17.8	F
	Right Turn	145	87	60.1%	151.1	31.8	F
	Subtotal	976	590	60.5%	190.4	19.4	F
WB	Left Turn	715	491	68.7%	10.2	1.6	B
	Through	387	258	66.7%	6.8	0.9	A
	Right Turn						
	Subtotal	1,102	749	68.0%	9.0	1.1	A
Total		3,525	2,813	79.8%	55.3	4.0	E

Intersection 2 **I 5 NB Ramps/Richards Blvd-I-80 EB On-ramp** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	54	78.8%	33.1	8.5	C
	Through	10	6	60.0%	26.4	21.1	C
	Right Turn	471	426	90.4%	11.3	1.3	B
	Subtotal	549	485	88.4%	14.1	1.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	626	379	60.6%	54.5	4.5	D
	Through	1,064	1,015	95.4%	2.4	0.3	A
	Right Turn						
	Subtotal	1,690	1,394	82.5%	16.6	1.6	B
WB	Left Turn						
	Through	1,034	724	70.0%	15.5	1.8	B
	Right Turn	1,759	1,121	63.7%	11.8	1.1	B
	Subtotal	2,793	1,844	66.0%	13.2	1.3	B
Total		5,032	3,724	74.0%	14.6	0.9	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	959	465	48.5%	72.4	4.7	E
	Through	35	14	40.0%	73.3	9.5	E
	Right Turn	58	31	53.1%	34.6	2.8	C
	Subtotal	1,052	510	48.4%	70.1	4.7	E
SB	Left Turn	44	46	105.5%	34.1	6.4	C
	Through	65	59	91.1%	36.8	7.9	D
	Right Turn	74	72	96.8%	16.3	4.3	B
	Subtotal	183	177	96.8%	28.0	4.1	C
EB	Left Turn	23	18	80.0%	25.2	10.0	C
	Through	1,140	1,057	92.7%	19.8	2.8	B
	Right Turn	372	356	95.6%	3.3	0.3	A
	Subtotal	1,535	1,431	93.2%	15.8	2.0	B
WB	Left Turn	99	78	78.4%	76.8	8.4	E
	Through	1,760	1,324	75.2%	66.9	10.6	E
	Right Turn	15	10	66.7%	45.9	14.3	D
	Subtotal	1,874	1,411	75.3%	67.2	10.4	E
Total		4,644	3,529	76.0%	44.7	4.1	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	214	190	88.6%	39.0	6.7	D
	Through	33	33	100.6%	23.5	5.9	C
	Right Turn	15	14	96.0%	14.4	7.5	B
	Subtotal	262	237	90.5%	35.5	5.6	D
SB	Left Turn	67	60	90.1%	40.0	17.0	D
	Through	14	15	105.7%	33.1	27.4	C
	Right Turn	198	179	90.3%	36.4	13.8	D
	Subtotal	279	254	91.0%	37.6	13.4	D
EB	Left Turn	196	172	87.6%	45.0	10.5	D
	Through	963	918	95.3%	11.9	1.5	B
	Right Turn	83	71	85.3%	10.2	2.1	B
	Subtotal	1,242	1,160	93.4%	16.8	2.3	B
WB	Left Turn	2	1	40.0%	39.0	50.5	D
	Through	1,462	1,030	70.4%	69.1	12.2	E
	Right Turn	21	16	74.3%	63.8	14.6	E
	Subtotal	1,485	1,046	70.4%	69.1	12.2	E
Total		3,268	2,698	82.5%	40.6	4.8	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	300	279	93.1%	44.5	7.9	D
	Through	441	422	95.6%	47.5	8.8	D
	Right Turn	6	4	60.0%	33.1	34.9	C
	Subtotal	747	704	94.3%	46.4	8.1	D
SB	Left Turn	166	98	58.8%	260.6	27.6	F
	Through	470	256	54.4%	264.6	25.6	F
	Right Turn	68	42	61.8%	273.2	49.8	F
	Subtotal	704	395	56.1%	265.7	24.8	F
EB	Left Turn	42	37	87.6%	45.5	5.8	D
	Through	1,022	915	89.5%	22.5	4.0	C
	Right Turn	232	208	89.5%	24.1	4.7	C
	Subtotal	1,296	1,160	89.5%	23.6	3.9	C
WB	Left Turn	5	2	48.0%	53.5	51.5	D
	Through	1,216	891	73.3%	97.9	17.9	F
	Right Turn	180	125	69.6%	101.6	17.5	F
	Subtotal	1,401	1,019	72.7%	98.3	17.5	F
Total		4,148	3,278	79.0%	80.8	7.6	F

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	25	23	91.2%	29.4	13.0	C
	Through	155	156	100.4%	31.7	6.9	C
	Right Turn	129	129	99.8%	14.0	3.1	B
	Subtotal	309	307	99.4%	24.1	3.9	C
SB	Left Turn	5	3	56.0%	16.7	18.2	B
	Through	145	152	104.6%	23.7	5.2	C
	Right Turn	103	101	98.3%	20.7	5.4	C
	Subtotal	253	256	101.0%	22.5	3.5	C
EB	Left Turn	92	78	84.8%	28.0	6.1	C
	Through	1,082	930	86.0%	7.8	2.5	A
	Right Turn	20	18	88.0%	5.9	3.5	A
	Subtotal	1,194	1,026	85.9%	9.3	2.0	A
WB	Left Turn	152	115	75.5%	70.8	21.4	E
	Through	1,273	1,018	80.0%	54.7	25.6	D
	Right Turn	18	11	62.2%	71.4	31.3	E
	Subtotal	1,443	1,144	79.3%	56.5	25.0	E
Total		3,199	2,733	85.4%	31.9	9.8	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	318	312	98.0%	48.9	5.5	D
	Through	227	236	103.8%	45.2	8.1	D
	Right Turn	5	6	128.0%	50.1	26.0	D
	Subtotal	550	554	100.7%	47.4	5.3	D
SB	Left Turn	48	42	87.5%	55.0	12.3	D
	Through	217	215	99.0%	47.5	4.4	D
	Right Turn	45	47	104.9%	44.6	11.5	D
	Subtotal	310	304	98.1%	47.8	4.4	D
EB	Left Turn	5	3	56.0%	53.1	66.9	D
	Through	1,015	742	73.1%	97.2	24.7	F
	Right Turn	196	147	75.1%	99.9	25.6	F
	Subtotal	1,216	892	73.4%	97.7	24.6	F
WB	Left Turn	420	351	83.5%	129.3	26.0	F
	Through	1,082	958	88.5%	51.9	13.2	D
	Right Turn	5	4	72.0%	58.9	35.4	E
	Subtotal	1,507	1,312	87.1%	72.8	17.2	E
Total		3,583	3,062	85.4%	72.5	10.6	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	17.5	23.1	B
	Through	13	13	101.5%	29.0	13.6	C
	Right Turn	258	269	104.3%	10.1	1.3	B
	Subtotal	276	287	103.9%	11.3	1.6	B
SB	Left Turn	229	223	97.3%	32.1	3.7	C
	Through	86	80	92.6%	25.7	6.0	C
	Right Turn	135	132	98.1%	18.4	5.0	B
	Subtotal	450	435	96.6%	26.7	2.8	C
EB	Left Turn	36	25	70.0%	48.0	16.9	D
	Through	890	675	75.8%	24.7	3.0	C
	Right Turn	55	43	77.8%	18.6	5.7	B
	Subtotal	981	743	75.7%	25.1	2.9	C
WB	Left Turn	269	252	93.7%	39.2	6.4	D
	Through	1,306	1,276	97.7%	15.4	6.6	B
	Right Turn	3	4	133.3%	6.6	7.8	A
	Subtotal	1,578	1,532	97.1%	19.3	6.2	B
Total		3,285	2,996	91.2%	21.0	3.8	C

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	46	110.5%	32.6	5.2	C
	Through	5	5	104.0%	21.8	31.2	C
	Right Turn	15	13	85.3%	19.0	8.7	B
	Subtotal	62	64	103.9%	29.4	6.8	C
SB	Left Turn	26	24	93.8%	32.9	9.5	C
	Through	5	6	112.0%	18.5	22.9	B
	Right Turn	59	55	92.9%	15.8	4.5	B
	Subtotal	90	85	94.2%	21.9	7.2	C
EB	Left Turn	23	18	78.3%	39.4	8.7	D
	Through	1,311	1,094	83.4%	10.3	2.2	B
	Right Turn	46	40	87.8%	10.6	2.8	B
	Subtotal	1,380	1,152	83.5%	10.7	2.2	B
WB	Left Turn	66	60	90.9%	40.7	10.3	D
	Through	1,477	1,484	100.5%	13.1	2.8	B
	Right Turn	10	9	92.0%	6.2	5.4	A
	Subtotal	1,553	1,553	100.0%	14.1	2.6	B
Total		3,085	2,854	92.5%	13.3	1.9	B

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	754	305	40.4%	172.7	16.0	F
	Right Turn	53	18	34.7%	152.5	52.3	F
	Subtotal	807	323	40.0%	171.3	17.1	F
SB	Left Turn	73	74	101.4%	6.7	1.1	A
	Through	413	369	89.4%	6.7	1.2	A
	Right Turn						
	Subtotal	486	443	91.2%	6.7	1.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	61	41	66.9%	84.2	41.4	F
	Through						
	Right Turn	297	227	76.4%	88.1	46.5	F
	Subtotal	358	268	74.7%	87.7	45.8	F
Total		1,651	1,034	62.6%	78.8	13.8	F

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	388	318	81.9%	55.2	19.9	F
	Through	560	510	91.1%	68.3	22.4	F
	Right Turn	2	1	60.0%	25.6	50.3	D
	Subtotal	950	829	87.3%	63.4	21.7	F
SB	Left Turn	191	124	64.9%	10.1	0.8	B
	Through	503	318	63.3%	16.1	4.5	C
	Right Turn	13	11	86.2%	10.2	6.1	B
	Subtotal	707	454	64.2%	14.5	3.5	B
EB	Left Turn	9	4	48.9%	7.8	7.7	A
	Through	48	40	82.5%	11.2	1.7	B
	Right Turn	132	104	78.8%	6.4	0.9	A
	Subtotal	189	148	78.3%	7.9	0.9	A
WB	Left Turn	2	1	60.0%	2.9	5.0	A
	Through	51	51	100.4%	10.7	1.6	B
	Right Turn	178	191	107.2%	10.2	4.0	B
	Subtotal	231	243	105.3%	10.3	3.0	B
Total		2,077	1,674	80.6%	37.2	9.7	E

Intersection 18 **7th St/F St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	500	339	67.8%	55.5	9.6	E
	Right Turn	33	20	59.4%	54.3	15.4	D
	Subtotal	533	359	67.3%	55.3	9.4	E
SB	Left Turn	716	456	63.7%	198.6	32.1	F
	Through	718	536	74.6%	92.6	35.7	F
	Right Turn	20	0	2.0%	4.1	12.8	A
	Subtotal	1,454	992	68.3%	141.9	29.7	F
EB	Left Turn	40	36	90.0%	93.2	52.1	F
	Through	9	7	80.0%	61.6	54.9	E
	Right Turn	11	9	83.6%	87.5	101.5	F
	Subtotal	60	52	87.3%	88.1	55.8	F
WB	Left Turn	83	75	90.1%	65.6	28.5	E
	Through	3	5	173.3%	42.9	36.6	D
	Right Turn	398	414	104.0%	20.6	6.0	C
	Subtotal	484	494	102.1%	27.6	8.9	C
Total		2,531	1,898	75.0%	94.0	15.5	F

Intersection 19 **8th St/F St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	140	139	99.4%	18.6	4.0	C
	Through	404	413	102.3%	15.8	3.3	C
	Right Turn	18	17	93.3%	6.1	1.5	A
	Subtotal	562	569	101.3%	16.2	3.3	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	176	96	54.5%	48.7	5.2	E
	Through	708	420	59.3%	47.6	5.5	E
	Right Turn						
	Subtotal	884	516	58.4%	47.8	5.4	E
WB	Left Turn						
	Through	374	360	96.4%	30.8	20.2	D
	Right Turn	6	5	86.7%	21.0	18.2	C
	Subtotal	380	366	96.2%	30.9	20.1	D
Total		1,826	1,451	79.5%	31.4	6.5	D

Intersection 21 **7th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	22.8	41.6	C
	Through	251	201	80.0%	29.1	17.5	C
	Right Turn						
	Subtotal	256	203	79.2%	29.6	17.2	C
SB	Left Turn						
	Through	826	632	76.5%	39.4	11.7	D
	Right Turn	33	16	49.7%	98.5	69.0	F
	Subtotal	859	648	75.4%	41.0	12.7	D
EB	Left Turn	127	96	75.3%	67.4	52.3	E
	Through						
	Right Turn	614	440	71.7%	24.4	10.0	C
	Subtotal	741	536	72.3%	32.5	18.3	C
WB	Left Turn	5	4	88.0%	42.8	19.6	D
	Through	555	343	61.8%	68.3	22.1	E
	Right Turn	295	187	63.5%	48.6	13.4	D
	Subtotal	855	535	62.5%	60.3	16.6	E
Total		2,711	1,922	70.9%	41.7	8.0	D

Intersection 22 **5th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	94.5%	48.0	26.5	D
	Through	672	644	95.8%	32.4	10.1	C
	Right Turn	76	4	5.8%	14.6	8.2	B
	Subtotal	759	659	86.8%	32.6	10.3	C
SB	Left Turn	109	49	45.1%	75.5	15.0	E
	Through	740	470	63.6%	56.8	12.3	E
	Right Turn	15	2	13.3%	16.9	25.9	B
	Subtotal	864	522	60.4%	58.5	11.5	E
EB	Left Turn	5	4	80.0%	31.0	65.8	C
	Through	35	34	98.3%	26.1	11.1	C
	Right Turn	5	8	160.0%	18.3	16.9	B
	Subtotal	45	46	103.1%	26.1	14.3	C
WB	Left Turn	218	161	73.8%	60.8	10.2	E
	Through	5	1	24.0%	0.7	1.1	A
	Right Turn	31	0	0.0%	#DIV/0!	#DIV/0!	#DIV/0!
	Subtotal	254	162	63.8%	60.3	10.0	E
Total		1,922	1,389	72.3%	44.9	5.9	D

Intersection 23 **6th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	0	0.0%	0.0	0.0	A
	Through	488	272	55.7%	13.3	14.9	B
	Right Turn	205	133	65.0%	2.6	0.8	A
	Subtotal	698	405	58.0%	9.8	9.9	A
SB	Left Turn	104	119	114.2%	24.9	4.8	C
	Through	682	401	58.8%	14.2	4.0	B
	Right Turn	51	22	42.4%	12.1	4.0	B
	Subtotal	837	541	64.7%	16.4	3.5	B
EB	Left Turn	39	15	39.0%	77.3	60.6	E
	Through	100	26	26.0%	47.7	18.4	D
	Right Turn	81	44	54.3%	30.5	20.4	C
	Subtotal	220	85	38.7%	41.3	20.0	D
WB	Left Turn	22	5	23.6%	47.5	66.0	D
	Through	198	180	91.1%	35.0	26.7	C
	Right Turn	10	11	108.0%	11.6	11.5	B
	Subtotal	230	196	85.4%	34.6	27.7	C
Total		1,985	1,228	61.8%	18.4	6.1	B

Intersection 24 **7th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	454	320	70.6%	19.0	3.3	B
	Through	941	711	75.6%	18.1	2.9	B
	Right Turn	41	24	58.5%	14.8	5.7	B
	Subtotal	1,436	1,056	73.5%	18.3	2.9	B
EB	Left Turn	254	202	79.5%	17.0	4.5	B
	Through	96	16	16.3%	1.3	1.0	A
	Right Turn	59	61	103.1%	16.5	6.9	B
	Subtotal	409	278	68.1%	15.9	4.5	B
WB	Left Turn	274	280	102.2%	36.0	3.0	D
	Through	189	174	91.9%	37.7	3.9	D
	Right Turn	2	1	60.0%	20.8	11.0	C
	Subtotal	465	455	97.8%	36.6	3.1	D
Total		2,310	1,789	77.4%	22.6	2.5	C

Intersection 25 **8th St/H St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	13	85.3%	8.7	11.0	A
	Through	852	493	57.8%	48.6	2.9	D
	Right Turn	215	110	51.3%	45.1	4.5	D
	Subtotal	1,082	616	56.9%	47.2	2.7	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	108	82	76.3%	20.6	3.9	C
	Through	442	281	63.5%	17.3	2.7	B
	Right Turn						
	Subtotal	550	363	66.0%	18.0	2.9	B
WB	Left Turn						
	Through	450	452	100.4%	33.6	21.1	C
	Right Turn	3	2	66.7%	7.5	13.1	A
	Subtotal	453	454	100.1%	33.6	21.0	C
Total		2,085	1,433	68.7%	35.7	6.5	D

Intersection 27 **5th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	396	298	75.4%	80.0	32.2	E
	Through	705	876	124.3%	32.4	15.6	C
	Right Turn						
	Subtotal	1,101	1,175	106.7%	44.5	12.8	D
SB	Left Turn						
	Through						
	Right Turn	979	621	63.5%	35.4	5.0	D
	Subtotal	979	621	63.5%	35.4	5.0	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	2,643	2,168	82.0%	19.2	3.9	B
	Right Turn	47	34	72.3%	18.8	6.0	B
	Subtotal	2,690	2,202	81.9%	19.1	3.9	B
Total		4,770	3,998	83.8%	28.9	4.6	C

Intersection 28 **6th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	260	184	70.9%	87.5	12.8	F
	Through	668	382	57.1%	83.1	12.6	F
	Right Turn						
	Subtotal	928	566	61.0%	84.5	12.4	F
SB	Left Turn						
	Through	441	250	56.6%	46.0	9.8	D
	Right Turn	344	208	60.6%	27.3	7.1	C
	Subtotal	785	458	58.3%	37.6	8.1	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	18	16	86.7%	25.4	15.9	C
	Through	2,086	1,856	89.0%	37.5	9.9	D
	Right Turn	30	23	76.0%	26.2	13.1	C
	Subtotal	2,134	1,894	88.8%	37.3	9.8	D
Total		3,847	2,918	75.9%	46.4	6.4	D

Intersection 29 **7th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	1,040	851	81.8%	25.2	2.0	C
	Right Turn	234	183	78.1%	19.0	8.9	B
	Subtotal	1,274	1,034	81.1%	24.2	2.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	259	245	94.7%	18.0	4.5	B
	Through	1,900	1,749	92.1%	23.2	6.3	C
	Right Turn						
	Subtotal	2,159	1,994	92.4%	22.5	5.9	C
Total		3,433	3,028	88.2%	23.1	4.5	C

Intersection 30 **8th St/I St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	502	320	63.8%	110.9	16.5	F
	Through	950	475	50.0%	242.4	15.1	F
	Right Turn						
	Subtotal	1,452	795	54.8%	189.6	17.0	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,657	1,682	101.5%	31.0	6.8	C
	Right Turn	132	139	105.2%	36.7	9.2	D
	Subtotal	1,789	1,821	101.8%	31.4	6.9	C
Total		3,241	2,616	80.7%	79.3	5.6	E

Intersection 31 **3rd St-I 5 NB Off Ramp/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NE	Left Turn	5	6	112.0%	32.4	29.7	C
	Through	787	809	102.8%	45.8	5.6	D
	Right Turn	27	27	99.3%	30.2	12.0	C
	Subtotal	819	842	102.8%	45.2	5.5	D
SB	Left Turn	277	250	90.4%	92.2	24.0	F
	Through	330	256	77.5%	165.9	35.7	F
	Right Turn						
	Subtotal	607	506	83.4%	129.6	26.8	F
EB	Left Turn	5	5	96.0%	23.8	20.8	C
	Through	739	736	99.6%	37.3	6.6	D
	Right Turn	591	565	95.6%	37.8	3.4	D
	Subtotal	1,335	1,306	97.8%	37.5	4.9	D
NB	Left Turn						
	Through						
	Right Turn	151	153	101.5%	9.8	3.7	A
	Subtotal	151	153	101.5%	9.8	3.7	A
Total		2,912	2,806	96.4%	54.7	6.9	D

Intersection 32 **5th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	351	456	129.8%	21.5	7.4	C
	Right Turn	459	449	97.9%	12.6	2.2	B
	Subtotal	810	905	111.7%	17.0	4.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	750	762	101.7%	28.5	15.6	C
	Through	1,186	1,177	99.3%	14.8	3.7	B
	Right Turn	103	89	86.2%	13.6	4.5	B
	Subtotal	2,039	2,028	99.5%	19.8	7.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,849	2,933	103.0%	18.9	6.2	B

Intersection 33 **7th St/J St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	101	41	40.4%	14.2	3.2	B
	Through	1,198	1,046	87.3%	13.4	0.9	B
	Right Turn						
	Subtotal	1,299	1,086	83.6%	13.4	0.9	B
EB	Left Turn						
	Through	1,312	1,259	95.9%	6.2	0.4	A
	Right Turn	383	394	102.9%	7.6	0.8	A
	Subtotal	1,695	1,653	97.5%	6.5	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,994	2,739	91.5%	9.3	0.5	A

Intersection 64 **5th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	543	470	86.6%	29.0	7.6	C
	Right Turn	165	204	123.4%	26.9	16.3	C
	Subtotal	708	674	95.2%	28.5	10.3	C
SB	Left Turn	343	253	73.7%	161.5	24.8	F
	Through	608	422	69.4%	147.7	25.8	F
	Right Turn						
	Subtotal	951	675	71.0%	153.0	24.8	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	256	123	48.0%	194.8	67.2	F
	Through						
	Right Turn	174	84	48.3%	66.0	23.3	E
	Subtotal	430	207	48.1%	142.4	50.0	F
Total		2,089	1,556	74.5%	95.0	10.1	F

Intersection 65 **6th St/G St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	26	40.6%	176.6	86.6	F
	Through	366	201	54.9%	21.7	19.3	C
	Right Turn	127	81	63.6%	18.7	20.0	B
	Subtotal	557	308	55.2%	33.0	23.2	C
SB	Left Turn	241	138	57.4%	200.6	50.5	F
	Through	552	267	48.4%	201.7	48.6	F
	Right Turn	83	51	61.2%	205.9	74.6	F
	Subtotal	876	456	52.1%	201.8	49.8	F
EB	Left Turn	7	5	68.6%	20.4	28.6	C
	Through	373	309	82.9%	25.0	16.5	C
	Right Turn	128	126	98.8%	19.2	11.3	B
	Subtotal	508	440	86.7%	23.1	14.1	C
WB	Left Turn	105	58	55.6%	102.0	33.6	F
	Through	283	160	56.5%	102.1	41.2	F
	Right Turn	205	132	64.6%	94.6	40.2	F
	Subtotal	593	351	59.2%	99.2	30.9	F
Total		2,534	1,555	61.4%	92.1	19.8	F

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	103	61	59.0%	63.8	6.6	E
	Through	188	146	77.4%	45.9	6.6	D
	Right Turn	841	585	69.6%	87.5	9.2	F
	Subtotal	1,132	792	69.9%	78.1	8.7	E
SB	Left Turn	179	172	96.3%	96.6	27.0	F
	Through	716	686	95.8%	29.3	4.5	C
	Right Turn	88	76	85.9%	27.3	7.3	C
	Subtotal	983	934	95.0%	41.7	7.8	D
EB	Left Turn	117	91	77.9%	64.6	10.3	E
	Through	455	385	84.7%	37.9	6.3	D
	Right Turn	5	4	72.0%	11.3	9.4	B
	Subtotal	577	480	83.2%	43.0	6.7	D
WB	Left Turn	219	208	95.2%	56.5	18.2	E
	Through	377	303	80.3%	62.9	11.5	E
	Right Turn	213	178	83.4%	55.2	12.8	E
	Subtotal	809	689	85.1%	59.4	6.7	E
Total		3,501	2,894	82.7%	56.0	3.4	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	10	10	104.0%	62.3	37.3	E
	Through	440	425	96.6%	14.1	5.8	B
	Right Turn	5	4	80.0%	2.6	3.4	A
	Subtotal	455	440	96.6%	15.3	6.2	B
SB	Left Turn						
	Through						
	Right Turn	18	19	104.4%	0.1	0.2	A
	Subtotal	18	19	104.4%	0.1	0.2	A
EB	Left Turn						
	Through	1,324	1,000	75.5%	33.2	3.9	C
	Right Turn	540	419	77.6%	40.5	4.7	D
	Subtotal	1,864	1,419	76.1%	35.3	4.1	D
SW	Left Turn	59	56	94.2%	86.2	19.8	F
	Through	1,540	1,324	86.0%	94.8	22.3	F
	Right Turn	554	477	86.1%	141.2	26.7	F
	Subtotal	2,153	1,857	86.3%	106.5	19.9	F
Total		4,490	3,735	83.2%	68.2	10.7	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	282	298	105.8%	62.9	14.0	E
	Through	2,578	2,611	101.3%	67.0	14.5	E
	Right Turn	12	10	86.7%	73.9	30.0	E
	Subtotal	2,872	2,920	101.7%	66.7	14.2	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	1,335	964	72.2%	36.7	6.9	D
	Through	18	14	77.8%	37.4	15.8	D
	Right Turn						
	Subtotal	1,353	978	72.3%	36.7	6.9	D
WB	Left Turn						
	Through	29	26	89.7%	15.2	13.7	B
	Right Turn	18	17	95.6%	14.7	8.6	B
	Subtotal	47	43	91.9%	15.1	5.2	B
Total		4,272	3,941	92.2%	58.7	10.9	E

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	455	349	76.7%	47.7	8.1	D
	Through	299	231	77.2%	21.1	5.4	C
	Right Turn	16	14	87.5%	18.4	9.7	B
	Subtotal	770	594	77.1%	36.6	6.2	D
SB	Left Turn	24	23	96.7%	52.1	16.0	D
	Through	275	242	87.9%	49.7	16.7	D
	Right Turn	76	73	95.8%	40.7	12.2	D
	Subtotal	375	338	90.0%	48.0	15.4	D
EB	Left Turn	61	52	85.9%	63.9	19.1	E
	Through	434	427	98.3%	38.4	15.8	D
	Right Turn	337	321	95.3%	28.2	14.4	C
	Subtotal	832	800	96.2%	36.2	14.6	D
WB	Left Turn	22	16	70.9%	49.1	30.6	D
	Through	539	402	74.6%	32.2	5.2	C
	Right Turn	40	29	72.0%	26.8	10.0	C
	Subtotal	601	446	74.3%	32.7	5.9	C
Total		2,578	2,178	84.5%	37.4	9.0	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	248	178	71.6%	16.8	1.7	B
	Through						
	Right Turn	326	240	73.6%	11.3	1.7	B
	Subtotal	574	418	72.8%	13.7	1.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	251	240	95.8%	56.6	19.9	E
	Right Turn	223	221	99.2%	46.7	20.7	D
	Subtotal	474	462	97.4%	51.9	20.2	D
WB	Left Turn	250	210	84.0%	29.9	3.5	C
	Through	318	232	73.0%	9.8	1.6	A
	Right Turn						
	Subtotal	568	442	77.8%	19.5	3.0	B
Total		1,616	1,321	81.8%	29.1	7.8	C

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	10.2	12.7	B
	Through						
	Right Turn	110	91	82.9%	12.8	4.5	B
	Subtotal	115	96	83.1%	13.0	4.7	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,470	1,137	77.4%	10.3	1.1	B
	Right Turn	5	4	80.0%	8.4	9.3	A
	Subtotal	1,475	1,141	77.4%	10.3	1.1	B
WB	Left Turn	5	4	80.0%	22.5	25.5	C
	Through	804	705	87.7%	35.5	21.4	D
	Right Turn						
	Subtotal	809	709	87.6%	35.5	21.4	D
Total		2,399	1,946	81.1%	19.4	7.4	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	53.5	49.2	D
	Through	231	197	85.2%	55.1	11.8	E
	Right Turn	500	402	80.5%	50.3	10.7	D
	Subtotal	736	602	81.8%	52.0	11.0	D
SB	Left Turn	16	14	87.5%	42.7	19.0	D
	Through	135	130	96.3%	33.6	14.5	C
	Right Turn	142	143	100.6%	28.9	16.7	C
	Subtotal	293	287	97.9%	31.9	15.2	C
EB	Left Turn	227	172	75.9%	60.9	9.9	E
	Through	1,348	1,027	76.2%	36.6	8.7	D
	Right Turn	5	6	112.0%	26.5	19.8	C
	Subtotal	1,580	1,205	76.3%	40.1	9.0	D
WB	Left Turn	306	280	91.4%	65.3	20.8	E
	Through	691	610	88.2%	23.9	11.0	C
	Right Turn	10	9	92.0%	13.1	12.6	B
	Subtotal	1,007	898	89.2%	36.9	12.7	D
Total		3,616	2,993	82.8%	40.7	7.3	D

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	283	82	29.0%	38.0	64.1	E
	Right Turn	137	39	28.3%	17.4	29.5	C
	Subtotal	420	121	28.8%	30.5	49.1	D
SB	Left Turn	144	89	61.9%	130.4	77.1	F
	Through	245	131	53.4%	165.2	95.2	F
	Right Turn						
	Subtotal	389	220	56.6%	149.7	86.2	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	15	5	34.7%	254.2	226.0	F
	Through						
	Right Turn	465	358	77.1%	67.0	101.1	F
	Subtotal	480	364	75.8%	68.9	101.2	F
Total		1,289	704	54.6%	80.2	77.1	F

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	541	429	79.3%	16.0	4.3	B
	Right Turn	61	42	68.2%	16.4	8.2	B
	Subtotal	602	471	78.2%	15.9	4.2	B
SB	Left Turn	26	21	80.0%	108.8	26.2	F
	Through	483	444	91.8%	51.1	21.8	D
	Right Turn	99	82	82.4%	48.8	25.5	D
	Subtotal	608	546	89.8%	52.9	22.4	D
EB	Left Turn	149	76	51.3%	49.6	12.2	D
	Through	120	52	43.3%	59.7	7.9	E
	Right Turn						
	Subtotal	269	128	47.7%	53.9	9.8	D
WB	Left Turn	86	77	89.8%	52.0	14.9	D
	Through	66	51	77.0%	51.4	14.7	D
	Right Turn	40	32	81.0%	36.7	12.5	D
	Subtotal	192	160	83.5%	48.7	12.5	D
Total		1,671	1,306	78.1%	38.9	9.4	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	40	28	71.0%	6.9	1.4	A
	Through	5	4	88.0%	4.8	3.0	A
	Right Turn	27	21	78.5%	4.0	0.7	A
	Subtotal	72	54	75.0%	5.7	0.8	A
SB	Left Turn	5	6	112.0%	3.9	2.5	A
	Through	5	4	72.0%	7.3	6.7	A
	Right Turn	24	28	116.7%	3.4	0.9	A
	Subtotal	34	37	109.4%	4.2	1.1	A
EB	Left Turn	24	14	60.0%	3.6	1.4	A
	Through	157	83	53.0%	1.8	0.7	A
	Right Turn	26	17	66.2%	1.4	1.5	A
	Subtotal	207	115	55.5%	2.0	0.8	A
WB	Left Turn	23	18	80.0%	3.5	0.9	A
	Through	128	101	78.8%	2.3	0.3	A
	Right Turn	18	16	88.9%	1.6	0.4	A
	Subtotal	169	135	80.0%	2.4	0.3	A
Total		482	341	70.8%	3.0	0.3	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	7	97.1%	29.6	23.4	D
	Through	306	218	71.1%	30.0	7.7	D
	Right Turn	210	165	78.5%	25.1	7.0	D
	Subtotal	523	389	74.4%	28.0	7.2	D
SB	Left Turn	43	38	88.4%	16.9	4.3	C
	Through	352	323	91.8%	26.7	6.7	D
	Right Turn	50	40	80.8%	23.7	9.6	C
	Subtotal	445	402	90.2%	25.5	6.5	D
EB	Left Turn	96	61	63.3%	12.8	3.3	B
	Through	79	48	60.3%	17.3	6.0	C
	Right Turn	14	10	74.3%	8.5	4.0	A
	Subtotal	189	119	62.9%	14.1	3.8	B
WB	Left Turn	225	188	83.7%	30.5	11.6	D
	Through	112	87	77.5%	32.8	10.7	D
	Right Turn	121	90	74.4%	32.7	16.2	D
	Subtotal	458	365	79.7%	31.6	12.3	D
Total		1,615	1,275	78.9%	27.2	6.4	D

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	65	55.9%	73.1	27.7	E
	Through	709	552	77.9%	33.6	19.8	C
	Right Turn						
	Subtotal	825	617	74.8%	38.2	18.3	D
SB	Left Turn						
	Through	739	719	97.3%	14.9	3.6	B
	Right Turn	297	265	89.2%	16.7	8.5	B
	Subtotal	1,036	984	94.9%	15.4	4.8	B
EB	Left Turn	308	234	76.0%	27.9	9.2	C
	Through						
	Right Turn	24	15	61.7%	21.4	14.0	C
	Subtotal	332	249	74.9%	27.6	9.1	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,193	1,849	84.3%	24.6	8.5	C

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	329	7	2.1%	577.1	32.0	F
	Through						
	Right Turn	66	1	1.8%	587.2	81.0	F
	Subtotal	395	8	2.0%	345.8	298.8	F
EB	Left Turn	74	10	14.1%	949.4	458.7	F
	Through	1,213	179	14.8%	984.4	508.7	F
	Right Turn						
	Subtotal	1,287	190	14.7%	811.7	522.6	F
WB	Left Turn						
	Through	1,633	1,156	70.8%	4.0	1.8	A
	Right Turn	419	310	74.1%	2.9	0.5	A
	Subtotal	2,052	1,466	71.5%	3.8	1.4	A
Total		3,734	1,664	44.6%	59.5	36.0	E

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	323	192	59.6%	175.2	16.1	F
	Through	83	53	64.1%	104.7	18.2	F
	Right Turn						
	Subtotal	406	246	60.5%	159.9	20.2	F
SB	Left Turn	1	0	0.0%	406.2	269.9	F
	Through	25	7	27.2%	924.1	562.2	F
	Right Turn	279	74	26.4%	822.1	553.2	F
	Subtotal	305	80	26.4%	501.6	438.1	F
EB	Left Turn	289	29	10.1%	50.1	31.4	D
	Through	816	95	11.7%	366.8	308.1	F
	Right Turn	437	56	12.9%	380.4	319.9	F
	Subtotal	1,542	181	11.7%	171.7	147.8	F
WB	Left Turn						
	Through	1,468	1,200	81.7%	18.5	3.9	B
	Right Turn	51	34	66.7%	8.7	4.9	A
	Subtotal	1,519	1,234	81.2%	18.3	3.9	B
Total		3,772	1,740	46.1%	59.7	24.1	E

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	161	142	88.2%	61.6	14.5	E
	Through						
	Right Turn	82	74	89.8%	48.3	20.7	D
	Subtotal	243	216	88.7%	56.6	16.9	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	700	93	13.3%	17.0	11.6	B
	Right Turn	96	10	10.8%	9.9	10.7	A
	Subtotal	796	104	13.0%	16.4	11.4	B
WB	Left Turn	32	26	80.0%	63.3	19.1	E
	Through	1,205	956	79.3%	19.3	5.5	B
	Right Turn						
	Subtotal	1,237	981	79.3%	20.4	5.8	C
Total		2,276	1,300	57.1%	26.2	7.1	C

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	312	220	70.5%	68.1	4.5	E
	Through						
	Right Turn	270	168	62.4%	59.7	5.1	E
	Subtotal	582	388	66.7%	64.4	3.7	E
SB	Left Turn	10	9	92.0%	41.7	27.3	D
	Through	23	17	73.0%	31.1	12.0	C
	Right Turn	5	2	32.0%	8.2	17.0	A
	Subtotal	38	28	72.6%	34.4	13.9	C
EB	Left Turn	5	2	40.0%	20.9	37.5	C
	Through	829	235	28.3%	20.2	6.7	C
	Right Turn	4	2	40.0%	6.6	12.0	A
	Subtotal	838	238	28.4%	20.5	6.5	C
WB	Left Turn	12	15	123.3%	65.1	32.2	E
	Through	854	685	80.2%	25.8	8.7	C
	Right Turn	10	10	96.0%	23.5	26.1	C
	Subtotal	876	709	81.0%	26.5	8.9	C
Total		2,334	1,364	58.4%	36.7	4.9	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	56	47	84.3%	91.1	32.3	F
	Through	258	228	88.2%	50.1	8.4	D
	Right Turn	92	84	90.9%	42.3	9.7	D
	Subtotal	406	358	88.3%	53.5	9.4	D
SB	Left Turn	112	87	77.9%	93.4	12.7	F
	Through	331	260	78.7%	88.8	14.7	F
	Right Turn	158	126	79.5%	81.8	13.1	F
	Subtotal	601	473	78.7%	87.6	13.0	F
EB	Left Turn	231	123	53.3%	50.4	7.1	D
	Through	1,070	572	53.5%	24.5	4.9	C
	Right Turn	124	68	55.2%	18.8	4.4	B
	Subtotal	1,425	764	53.6%	28.3	4.2	C
WB	Left Turn	63	53	83.8%	50.2	9.9	D
	Through	670	541	80.7%	26.1	8.6	C
	Right Turn	7	5	74.3%	26.7	27.8	C
	Subtotal	740	599	80.9%	28.1	8.4	C
Total		3,172	2,194	69.2%	45.2	5.5	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	30	22	73.3%	30.9	25.6	D
	Subtotal	30	22	73.3%	30.9	25.6	D
EB	Left Turn	29	18	63.4%	22.2	9.0	C
	Through	1,245	744	59.8%	6.3	2.5	A
	Right Turn						
	Subtotal	1,274	763	59.9%	6.7	2.6	A
WB	Left Turn						
	Through	710	581	81.9%	3.7	2.6	A
	Right Turn	33	29	88.5%	2.0	1.4	A
	Subtotal	743	610	82.2%	3.6	2.5	A
Total		2,047	1,395	68.2%	5.7	2.2	A

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	7	75.6%	81.4	48.6	F
	Through	227	183	80.7%	62.4	11.5	E
	Right Turn	280	216	77.1%	51.8	10.7	D
	Subtotal	516	406	78.7%	57.4	10.8	E
SB	Left Turn	143	128	89.8%	99.4	13.0	F
	Through	207	162	78.5%	39.9	5.4	D
	Right Turn	244	208	85.4%	34.5	5.6	C
	Subtotal	594	499	84.0%	53.1	7.7	D
EB	Left Turn	232	150	64.8%	52.5	15.2	D
	Through	996	623	62.5%	27.9	8.8	C
	Right Turn	17	15	89.4%	16.4	7.0	B
	Subtotal	1,245	788	63.3%	32.4	9.9	C
WB	Left Turn	241	186	77.2%	76.1	13.0	E
	Through	490	383	78.1%	28.3	4.1	C
	Right Turn	32	20	62.5%	32.4	12.5	C
	Subtotal	763	589	77.2%	43.5	5.6	D
Total		3,118	2,282	73.2%	44.5	5.2	D

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Cumulative Plus Land Use Variant**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	216	119	55.0%	267.3	82.3	F
	Through	471	394	83.6%	49.3	14.1	D
	Right Turn	322	295	91.7%	30.2	9.8	C
	Subtotal	1,009	808	80.0%	72.9	18.9	E
SB	Left Turn	9	12	128.9%	138.6	43.4	F
	Through	577	514	89.0%	72.4	16.0	E
	Right Turn	177	146	82.7%	92.3	22.6	F
	Subtotal	763	672	88.0%	77.8	16.3	E
EB	Left Turn	324	226	69.6%	39.5	5.3	D
	Through	372	273	73.4%	28.3	5.8	C
	Right Turn	723	481	66.6%	10.7	1.6	B
	Subtotal	1,419	980	69.1%	22.3	3.3	C
WB	Left Turn	213	176	82.6%	91.9	41.1	F
	Through	370	316	85.4%	86.3	38.1	F
	Right Turn	30	26	85.3%	88.8	48.5	F
	Subtotal	613	518	84.4%	88.4	39.0	F
Total		3,804	2,977	78.3%	60.0	10.0	E

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 55 **8th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	4	88.0%	12.3	9.1	B
	Through						
	Right Turn	15	14	90.7%	18.7	26.6	C
	Subtotal	20	18	90.0%	17.7	19.1	C
EB	Left Turn	130	106	81.8%	11.0	5.1	B
	Through	573	471	82.2%	2.3	0.4	A
	Right Turn						
	Subtotal	703	578	82.2%	3.9	1.0	A
WB	Left Turn						
	Through	598	516	86.4%	17.4	22.6	C
	Right Turn	5	5	104.0%	6.4	9.1	A
	Subtotal	603	522	86.5%	17.3	22.5	C
Total		1,326	1,117	84.3%	10.8	11.9	B

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	446	405	90.9%	13.9	1.5	B
	Subtotal	446	405	90.9%	13.9	1.5	B
EB	Left Turn	503	402	79.8%	22.4	2.5	C
	Through						
	Right Turn						
	Subtotal	503	402	79.8%	22.4	2.5	C
WB	Left Turn						
	Through	191	149	78.1%	18.1	2.2	B
	Right Turn						
	Subtotal	191	149	78.1%	18.1	2.2	B
Total		1,140	956	83.9%	18.2	1.3	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	274	148	54.2%	244.7	78.2	F
	Right Turn	263	128	48.8%	230.0	73.0	F
	Subtotal	537	277	51.5%	239.0	75.3	F
SB	Left Turn	275	37	13.5%	410.1	297.8	F
	Through	139	15	10.9%	403.7	300.3	F
	Right Turn						
	Subtotal	414	52	12.7%	229.1	191.9	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	186	152	81.7%	83.7	40.5	F
	Through						
	Right Turn	128	106	82.5%	91.1	44.8	F
	Subtotal	314	258	82.0%	87.0	42.9	F
Total		1,265	587	46.4%	150.8	49.0	F

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	122	44	36.4%	10.1	3.0	B
	Through						
	Right Turn	12	2	16.7%	2.8	2.5	A
	Subtotal	134	46	34.6%	10.0	3.1	A
EB	Left Turn	6	1	20.0%	1.9	2.8	A
	Through	535	170	31.8%	0.8	0.2	A
	Right Turn						
	Subtotal	541	171	31.6%	0.9	0.2	A
WB	Left Turn						
	Through	354	343	96.9%	8.3	4.8	A
	Right Turn	311	274	88.0%	7.4	5.7	A
	Subtotal	665	617	92.8%	7.9	5.2	A
Total		1,340	834	62.3%	6.6	3.9	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	148	144	97.6%	9.8	2.5	A
	Right Turn	76	80	105.3%	5.3	1.4	A
	Subtotal	224	224	100.2%	8.3	2.2	A
SB	Left Turn	14	12	85.7%	6.2	1.8	A
	Through	8	6	75.0%	4.8	4.3	A
	Right Turn	17	16	94.1%	4.6	1.4	A
	Subtotal	39	34	87.2%	5.6	1.1	A
EB	Left Turn	22	9	41.8%	10.0	4.6	A
	Through	535	177	33.1%	9.3	1.4	A
	Right Turn						
	Subtotal	557	186	33.5%	9.4	1.4	A
WB	Left Turn	42	37	87.6%	18.8	4.4	C
	Through	355	332	93.6%	19.7	4.3	C
	Right Turn	139	128	92.4%	14.9	2.5	B
	Subtotal	536	498	92.8%	18.5	3.8	C
Total		1,356	942	69.5%	13.9	2.7	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	219	1217.8%	99.8	30.4	F
	Through	298	266	89.3%	77.9	25.8	E
	Right Turn	182	74	40.7%	75.7	27.4	E
	Subtotal	498	559	112.3%	86.3	27.9	F
SB	Left Turn	191	130	68.3%	82.4	16.1	F
	Through	358	271	75.6%	32.3	9.0	C
	Right Turn	28	28	101.4%	34.2	15.9	C
	Subtotal	577	430	74.5%	47.7	12.3	D
EB	Left Turn	1	0	40.0%	21.1	66.6	C
	Through	365	154	42.3%	31.4	4.6	C
	Right Turn	259	118	45.4%	24.3	7.7	C
	Subtotal	625	272	43.6%	28.6	5.3	C
WB	Left Turn	18	20	113.3%	71.7	26.9	E
	Through	298	268	89.8%	38.5	5.4	D
	Right Turn	182	172	94.7%	30.3	5.2	C
	Subtotal	498	460	92.4%	36.7	4.5	D
Total		2,198	1,722	78.3%	54.3	10.2	D

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	252	231	91.7%	56.2	20.4	E
	Through	261	275	105.3%	48.1	26.9	D
	Right Turn						
	Subtotal	513	506	98.6%	51.9	23.8	D
SB	Left Turn						
	Through	354	282	79.5%	23.2	4.0	C
	Right Turn	111	89	80.0%	17.7	4.3	B
	Subtotal	465	370	79.7%	21.9	3.6	C
EB	Left Turn	255	147	57.6%	33.2	18.2	C
	Through						
	Right Turn	325	184	56.7%	11.2	2.7	B
	Subtotal	580	331	57.1%	21.1	9.8	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,558	1,208	77.5%	34.3	12.7	C

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	217	220	101.4%	84.3	22.0	F
	Through	455	456	100.2%	54.8	21.7	F
	Right Turn	51	47	91.8%	47.4	22.5	E
	Subtotal	723	723	100.0%	63.4	21.7	F
SB	Left Turn	21	18	83.8%	104.3	11.4	F
	Through	613	398	65.0%	17.9	2.2	C
	Right Turn	1	0	40.0%	1.1	3.5	A
	Subtotal	635	416	65.6%	21.5	3.4	C
EB	Left Turn	100	84	84.4%	101.1	35.7	F
	Through	183	159	86.8%	103.9	31.9	F
	Right Turn	297	250	84.2%	104.6	36.4	F
	Subtotal	580	493	85.0%	103.9	34.5	F
WB	Left Turn	97	72	74.6%	111.4	52.3	F
	Through	119	92	77.3%	96.3	43.0	F
	Right Turn	8	6	70.0%	106.9	76.3	F
	Subtotal	224	170	75.9%	103.5	47.2	F
Total		2,162	1,802	83.4%	68.3	16.2	F

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	109	110	100.9%	42.1	21.5	E
	Through	494	489	99.0%	24.2	13.4	C
	Right Turn						
	Subtotal	603	599	99.4%	27.5	14.6	D
SB	Left Turn						
	Through	655	477	72.9%	3.8	1.8	A
	Right Turn	107	72	67.7%	4.4	4.4	A
	Subtotal	762	550	72.1%	3.8	2.0	A
EB	Left Turn						
	Through						
	Right Turn	270	243	90.1%	27.9	18.6	D
	Subtotal	270	243	90.1%	27.9	18.6	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,635	1,392	85.1%	18.2	8.1	C

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus Land Use Variant**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	209	142	67.8%	95.6	35.9	F
	Through	351	238	67.7%	70.9	29.1	E
	Right Turn	453	148	32.8%	328.6	122.9	F
	Subtotal	1,013	528	52.1%	137.3	26.2	F
SB	Left Turn	99	26	26.7%	361.1	112.4	F
	Through	252	215	85.2%	44.9	27.6	D
	Right Turn	23	16	67.8%	30.4	62.1	C
	Subtotal	374	257	68.7%	75.7	29.4	E
EB	Left Turn	31	13	42.6%	221.3	226.3	F
	Through	239	64	26.6%	323.3	129.6	F
	Right Turn	162	61	37.8%	98.3	126.7	F
	Subtotal	432	138	31.9%	205.3	118.8	F
WB	Left Turn	453	246	54.2%	116.8	32.4	F
	Through	394	236	59.8%	72.6	26.8	E
	Right Turn	154	90	58.7%	32.1	14.8	C
	Subtotal	1,001	572	57.1%	85.0	27.2	F
Total		2,820	1,494	53.0%	109.1	19.6	F

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	33	16	47.3%	153.8	167.1	F
	Through	19	7	37.9%	196.3	177.4	F
	Right Turn	540	179	33.2%	320.1	144.3	F
	Subtotal	592	202	34.1%	303.8	139.0	F
SB	Left Turn	5	2	40.0%	101.4	159.3	F
	Through	14	12	88.6%	62.7	69.6	E
	Right Turn	7	8	114.3%	37.4	77.8	D
	Subtotal	26	22	86.2%	42.9	56.1	D
EB	Left Turn	16	5	32.5%	372.6	220.2	F
	Through	749	195	26.1%	413.7	182.1	F
	Right Turn	24	8	31.7%	264.5	154.9	F
	Subtotal	789	208	26.4%	405.2	175.0	F
WB	Left Turn	695	426	61.2%	543.0	237.9	F
	Through	956	574	60.0%	513.8	231.7	F
	Right Turn	53	30	57.4%	501.5	239.1	F
	Subtotal	1,704	1,030	60.4%	525.5	233.8	F
Total		3,111	1,462	47.0%	479.4	221.8	F

Daily VMT - Railyards Specific Plan Land Use Variant Trips
Cumulative Year Plus Railyards Specific Plan Land Use Variant

Daily VMT for Railyards Specific Plan Land Use Variant			
Speed Bin	**Congested Speed**		**Project VMT**
1	>0	<=5	1,538
2	>5	<=10	4,082
3	>10	<=15	16,024
4	>15	<=20	95,889
5	>20	<=25	71,799
6	>25	<=30	47,384
7	>30	<=35	45,326
8	>35	<=40	54,456
9	>40	<=45	51,618
10	>45	<=50	64,461
11	>50	<=55	106,492
12	>55	<=60	213,600
13	>60	<=65	48,708
14	>65	<=70	10,078
15	>70	<=75	0
16	>75		0
Railyards SP LUV VMT Within SACMET Model Boundary			831,455
Railyards SP LUV VMT Beyond SACMET Model Boundary			68,058
Total Railyards SP LUV VMT			**899,513**
Total Railyards SP Vehicle Trips			114,837
Average Railyards SP VMT Per Trip			7.2

Note:

Includes all vehicle trips generated and attracted to Railyards Specific Plan, including internal vehicle trips that remain within the plan area.

Trip lengths include distances beyond SACMET model boundary

APPENDIX J.1.17:

Mitigations Level of Service (LOS) Calculations

Baseline Plus Medical Center Option 1a Mitigations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,089	872	80.1%	89.4	4.2	F
	Through	12	12	96.7%	88.0	24.3	F
	Right Turn	509	432	84.9%	68.6	2.1	E
	Subtotal	1,610	1,316	81.7%	82.7	3.5	F
EB	Left Turn						
	Through	298	319	107.0%	21.7	3.3	C
	Right Turn	46	48	105.2%	4.3	2.0	A
	Subtotal	344	367	106.7%	19.5	3.1	B
WB	Left Turn	254	215	84.7%	9.0	2.0	A
	Through	145	151	104.3%	7.6	1.4	A
	Right Turn						
	Subtotal	399	366	91.8%	8.4	1.2	A
Total		2,353	2,050	87.1%	58.1	2.6	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	56	109.0%	18.7	6.3	B
	Through	8	11	140.0%	18.7	12.7	B
	Right Turn	824	822	99.8%	31.9	10.1	C
	Subtotal	883	889	100.7%	30.9	9.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	130	94.6%	16.8	6.7	B
	Through	1,250	1,040	83.2%	8.3	4.0	A
	Right Turn						
	Subtotal	1,387	1,170	84.3%	9.2	3.3	A
WB	Left Turn						
	Through	348	310	89.1%	15.0	2.7	B
	Right Turn	481	441	91.6%	3.4	0.5	A
	Subtotal	829	751	90.6%	8.2	1.2	A
Total		3,099	2,810	90.7%	15.9	4.0	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	282	260	92.3%	37.1	6.3	D
	Through	11	16	149.1%	33.3	14.6	C
	Right Turn	9	9	102.2%	11.9	9.8	B
	Subtotal	302	286	94.7%	36.2	6.5	D
SB	Left Turn	36	36	98.9%	32.4	11.0	C
	Through	3	3	93.3%	21.8	27.9	C
	Right Turn	68	66	97.1%	7.2	1.7	A
	Subtotal	107	104	97.6%	17.0	5.9	B
EB	Left Turn	126	120	95.2%	41.9	8.1	D
	Through	1,124	1,044	92.9%	18.2	3.1	B
	Right Turn	824	720	87.3%	4.2	0.3	A
	Subtotal	2,074	1,884	90.8%	14.3	2.0	B
WB	Left Turn	35	31	88.0%	41.2	10.3	D
	Through	479	436	91.0%	17.9	2.1	B
	Right Turn	10	10	96.0%	9.8	10.0	A
	Subtotal	524	476	90.9%	19.2	2.0	B
Total		3,007	2,750	91.5%	17.5	1.8	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	23	108.6%	40.3	10.9	D
	Through	5	6	112.0%	41.4	24.0	D
	Right Turn	8	9	115.0%	3.8	3.4	A
	Subtotal	34	38	110.6%	32.9	6.5	C
SB	Left Turn	15	12	82.7%	29.6	17.1	C
	Through	5	6	112.0%	30.9	24.3	C
	Right Turn	17	18	103.5%	4.5	2.0	A
	Subtotal	37	36	96.2%	21.1	9.1	C
EB	Left Turn	57	52	91.2%	44.7	7.9	D
	Through	1,018	941	92.4%	4.6	1.5	A
	Right Turn	94	90	95.7%	4.3	1.7	A
	Subtotal	1,169	1,083	92.6%	6.4	1.5	A
WB	Left Turn	21	19	89.5%	43.6	23.3	D
	Through	486	435	89.5%	6.5	1.7	A
	Right Turn	34	32	92.9%	5.2	3.7	A
	Subtotal	541	486	89.8%	7.7	1.8	A
Total		1,781	1,642	92.2%	7.7	1.5	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	40	96.6%	35.5	10.6	D
	Through	3	2	80.0%	16.0	16.3	B
	Right Turn	10	8	76.0%	7.0	3.9	A
	Subtotal	54	50	91.9%	30.7	9.1	C
SB	Left Turn	5	8	152.0%	45.7	22.9	D
	Through	10	6	56.0%	19.4	13.3	B
	Right Turn	7	9	131.4%	5.1	2.7	A
	Subtotal	22	22	101.8%	25.4	7.5	C
EB	Left Turn	56	50	88.6%	33.8	8.4	C
	Through	980	904	92.3%	6.2	2.1	A
	Right Turn	5	3	64.0%	6.0	10.3	A
	Subtotal	1,041	957	92.0%	7.7	1.8	A
WB	Left Turn	24	23	96.7%	38.4	11.2	D
	Through	493	439	89.0%	5.5	2.2	A
	Right Turn	26	26	98.5%	3.5	1.5	A
	Subtotal	543	488	89.8%	7.1	2.3	A
Total		1,660	1,517	91.4%	8.5	1.5	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	17.3	17.3	B
	Through	5	5	96.0%	29.1	31.9	C
	Right Turn	5	4	72.0%	4.0	4.3	A
	Subtotal	15	12	82.7%	18.3	15.4	B
SB	Left Turn	16	14	87.5%	29.9	17.7	C
	Through	5	4	80.0%	12.1	15.7	B
	Right Turn	20	21	106.0%	6.0	2.5	A
	Subtotal	41	39	95.6%	17.3	8.5	B
EB	Left Turn	54	55	102.2%	40.2	6.6	D
	Through	933	844	90.4%	5.3	1.7	A
	Right Turn	8	9	110.0%	6.4	7.0	A
	Subtotal	995	908	91.2%	7.5	1.6	A
WB	Left Turn	9	8	93.3%	45.4	18.5	D
	Through	518	458	88.3%	7.5	2.8	A
	Right Turn	17	18	105.9%	5.4	1.8	A
	Subtotal	544	484	89.0%	8.2	2.4	A
Total		1,595	1,443	90.5%	8.3	1.5	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	27	80.0%	41.5	15.1	D
	Through	82	72	87.8%	43.6	12.4	D
	Right Turn	361	332	92.0%	32.2	9.1	C
	Subtotal	477	431	90.4%	34.7	8.5	C
SB	Left Turn	7	5	74.3%	27.0	28.0	C
	Through	17	15	89.4%	46.6	16.2	D
	Right Turn	21	22	102.9%	39.4	11.6	D
	Subtotal	45	42	93.3%	41.6	8.6	D
EB	Left Turn	124	104	84.2%	49.7	7.9	D
	Through	734	652	88.9%	37.1	5.1	D
	Right Turn	96	88	91.7%	32.1	10.7	C
	Subtotal	954	845	88.6%	38.0	5.4	D
WB	Left Turn	542	372	68.7%	151.8	20.0	F
	Through	491	441	89.8%	59.1	10.1	E
	Right Turn	14	14	100.0%	33.1	11.0	C
	Subtotal	1,047	827	79.0%	100.3	14.1	F
Total		2,523	2,145	85.0%	61.5	4.9	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	11	93.3%	36.1	18.3	D
	Through	32	29	91.3%	34.3	8.8	C
	Right Turn	12	12	103.3%	7.6	4.6	A
	Subtotal	56	53	94.3%	30.0	7.2	C
SB	Left Turn	7	6	80.0%	35.6	29.2	D
	Through	7	6	80.0%	28.2	19.5	C
	Right Turn	32	36	111.3%	7.6	2.7	A
	Subtotal	46	47	101.7%	15.3	5.4	B
EB	Left Turn	137	126	92.0%	37.6	6.3	D
	Through	926	834	90.1%	8.6	1.9	A
	Right Turn	39	35	90.3%	5.4	1.5	A
	Subtotal	1,102	995	90.3%	12.1	1.9	B
WB	Left Turn	15	13	88.0%	49.4	25.9	D
	Through	1,111	981	88.3%	14.1	6.5	B
	Right Turn	51	49	95.7%	7.3	3.5	A
	Subtotal	1,177	1,043	88.6%	14.1	6.2	B
Total		2,381	2,138	89.8%	13.6	2.8	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	19	85.5%	35.6	10.5	D
	Through	7	7	102.9%	32.2	12.6	C
	Right Turn	27	30	111.1%	15.0	7.1	B
	Subtotal	56	56	100.0%	24.8	8.9	C
SB	Left Turn	40	45	112.0%	30.8	6.1	C
	Through	11	9	83.6%	32.8	15.5	C
	Right Turn	21	24	114.3%	14.5	7.8	B
	Subtotal	72	78	108.3%	27.1	6.1	C
EB	Left Turn	26	21	81.5%	34.6	16.3	C
	Through	891	774	86.9%	12.6	1.9	B
	Right Turn	28	24	84.3%	8.4	4.8	A
	Subtotal	945	819	86.7%	13.2	1.8	B
WB	Left Turn	27	27	100.7%	44.4	16.1	D
	Through	1,134	1,033	91.1%	10.6	2.0	B
	Right Turn	27	27	99.3%	10.6	5.1	B
	Subtotal	1,188	1,087	91.5%	11.4	2.1	B
Total		2,261	2,040	90.2%	13.1	1.5	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	60	92.9%	67.8	12.6	E
	Through	1,035	979	94.6%	17.0	2.6	B
	Right Turn	2	3	160.0%	0.8	0.8	A
	Subtotal	1,102	1,042	94.6%	19.8	2.4	B
SB	Left Turn						
	Through	2,531	2,128	84.1%	62.1	3.3	E
	Right Turn	1,187	1,076	90.6%	21.0	1.5	C
	Subtotal	3,718	3,204	86.2%	48.3	2.7	D
EB	Left Turn	894	642	71.8%	121.5	12.8	F
	Through						
	Right Turn	20	17	84.0%	45.0	8.8	D
	Subtotal	914	659	72.1%	119.5	12.7	F
WB	Left Turn						
	Through	1	2	160.0%	14.9	31.5	B
	Right Turn	2	2	100.0%	1.9	3.7	A
	Subtotal	3	4	120.0%	13.0	24.9	B
Total		5,737	4,908	85.6%	51.7	2.2	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	253	240	94.7%	4.6	1.0	A
	Right Turn	3	5	173.3%	4.4	1.2	A
	Subtotal	256	245	95.6%	4.6	1.0	A
SB	Left Turn	245	213	86.9%	8.7	0.7	A
	Through	617	540	87.5%	6.0	0.2	A
	Right Turn						
	Subtotal	862	753	87.3%	6.8	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	1	40.0%	1.0	2.0	A
	Through						
	Right Turn	49	46	93.9%	3.4	0.7	A
	Subtotal	52	47	90.8%	3.4	0.7	A
Total		1,170	1,045	89.3%	6.1	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	38	86.4%	3.8	1.4	A
	Through	49	49	99.6%	5.8	0.3	A
	Right Turn						
	Subtotal	93	87	93.3%	5.1	0.4	A
SB	Left Turn						
	Through	31	23	74.8%	7.3	0.6	A
	Right Turn	8	9	115.0%	3.6	0.7	A
	Subtotal	39	32	83.1%	6.2	0.4	A
EB	Left Turn	5	3	56.0%	2.7	2.4	A
	Through						
	Right Turn	243	213	87.7%	4.1	0.6	A
	Subtotal	248	216	87.1%	4.1	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	335	88.2%	4.6	0.4	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	21	88.3%	32.2	14.0	C
	Through	288	275	95.4%	39.8	4.6	D
	Right Turn	16	18	115.0%	42.9	15.0	D
	Subtotal	328	314	95.9%	39.6	5.0	D
SB	Left Turn	11	6	50.9%	66.3	31.8	E
	Through	539	377	69.9%	41.6	11.8	D
	Right Turn	107	77	72.1%	38.4	13.3	D
	Subtotal	657	460	70.0%	41.2	11.5	D
EB	Left Turn	160	151	94.5%	45.5	9.5	D
	Through	56	66	118.6%	44.5	11.9	D
	Right Turn	53	54	102.6%	20.8	7.7	C
	Subtotal	269	272	101.1%	40.0	6.6	D
WB	Left Turn	238	210	88.4%	47.2	10.1	D
	Through	168	142	84.8%	36.8	6.7	D
	Right Turn	27	23	85.9%	35.9	8.9	D
	Subtotal	433	376	86.8%	42.7	6.7	D
Total		1,687	1,422	84.3%	41.2	2.9	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	26	82.6%	39.4	11.2	D
	Through	101	105	103.8%	39.3	4.2	D
	Right Turn	22	22	98.2%	40.1	14.5	D
	Subtotal	154	152	98.7%	40.1	4.5	D
SB	Left Turn	2	2	120.0%	20.0	30.9	B
	Through	17	11	65.9%	57.9	26.5	E
	Right Turn	9	10	111.1%	18.3	12.4	B
	Subtotal	28	24	84.3%	39.2	12.0	D
EB	Left Turn						
	Through	61	69	113.4%	30.1	9.1	C
	Right Turn	22	18	83.6%	14.0	8.4	B
	Subtotal	83	88	105.5%	26.7	6.8	C
SW	Left Turn	18	19	104.4%	7.0	5.3	A
	Through	2,289	1,922	83.9%	11.6	1.0	B
	Right Turn	325	277	85.2%	17.1	1.5	B
	Subtotal	2,632	2,217	84.2%	12.3	1.0	B
Total		2,897	2,480	85.6%	14.7	0.9	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	126	98.9%	9.3	1.5	A
	Through	1,075	1,042	97.0%	7.4	0.6	A
	Right Turn	6	4	73.3%	1.1	1.5	A
	Subtotal	1,208	1,172	97.1%	7.6	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	50	106.4%	16.3	4.2	B
	Through	6	6	93.3%	10.2	9.5	B
	Right Turn						
	Subtotal	53	56	104.9%	16.1	3.8	B
WB	Left Turn						
	Through	6	6	93.3%	8.4	9.9	A
	Right Turn	2	1	60.0%	0.8	1.6	A
	Subtotal	8	7	85.0%	8.2	9.4	A
Total		1,269	1,235	97.3%	8.0	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	100.0%	12.8	5.8	B
	Through	13	19	147.7%	11.3	7.3	B
	Right Turn						
	Subtotal	29	35	121.4%	12.4	3.7	B
SB	Left Turn						
	Through	25	22	88.0%	12.9	8.1	B
	Right Turn	33	29	88.5%	9.7	3.3	A
	Subtotal	58	51	88.3%	11.7	3.5	B
EB	Left Turn						
	Through	8	10	120.0%	19.2	17.0	B
	Right Turn						
	Subtotal	8	10	120.0%	19.2	17.0	B
WB	Left Turn	39	31	80.0%	5.2	1.8	A
	Through	2,504	2,106	84.1%	10.2	1.8	B
	Right Turn	8	6	75.0%	7.7	6.3	A
	Subtotal	2,551	2,144	84.0%	10.1	1.7	B
Total		2,646	2,240	84.6%	10.2	1.7	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	126	119	94.3%	2.9	1.2	A
	Right Turn	68	71	104.1%	1.8	0.4	A
	Subtotal	194	190	97.7%	2.5	0.8	A
SB	Left Turn	299	264	88.4%	13.9	1.5	B
	Through	287	252	87.9%	10.7	1.0	B
	Right Turn						
	Subtotal	586	517	88.2%	12.3	1.2	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	22	20	90.9%	9.3	1.3	A
	Through						
	Right Turn	71	64	90.7%	7.1	1.2	A
	Subtotal	93	84	90.8%	7.7	0.9	A
Total		873	791	90.6%	9.5	0.7	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	440	407	92.5%	11.5	1.0	B
	Through	120	119	99.3%	2.9	1.0	A
	Right Turn						
	Subtotal	560	526	93.9%	9.6	0.9	A
SB	Left Turn						
	Through	120	98	81.3%	11.1	1.3	B
	Right Turn	100	88	88.4%	7.2	2.4	A
	Subtotal	220	186	84.5%	9.1	1.7	A
EB	Left Turn	40	34	85.0%	20.1	4.4	C
	Through						
	Right Turn	106	102	95.8%	8.8	2.4	A
	Subtotal	146	136	92.9%	11.7	2.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		926	848	91.5%	9.8	0.6	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	158	98.1%	10.2	1.1	B
	Right Turn	468	470	100.4%	6.1	0.9	A
	Subtotal	629	628	99.8%	7.1	0.8	A
SB	Left Turn	227	204	89.7%	38.5	15.6	D
	Through	340	334	98.2%	4.9	1.0	A
	Right Turn						
	Subtotal	567	538	94.8%	17.5	5.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	225	192	85.5%	17.3	2.9	B
	Through						
	Right Turn	9	8	88.9%	3.7	2.3	A
	Subtotal	234	200	85.6%	16.7	2.8	B
Total		1,430	1,366	95.5%	12.6	2.5	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	36	28	77.8%	9.7	3.1	A
	Through						
	Right Turn	59	60	101.0%	3.7	1.4	A
	Subtotal	95	88	92.2%	5.6	1.4	A
EB	Left Turn	107	100	93.1%	6.4	1.4	A
	Through	588	574	97.7%	4.9	0.7	A
	Right Turn						
	Subtotal	695	674	97.0%	5.1	0.7	A
WB	Left Turn						
	Through	175	144	82.1%	10.1	1.2	B
	Right Turn	38	39	102.1%	8.1	1.2	A
	Subtotal	213	182	85.6%	9.7	1.2	A
Total		1,003	944	94.1%	6.0	0.6	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	103	91	88.5%	10.1	1.3	B
	Through						
	Right Turn	17	16	96.5%	2.7	1.2	A
	Subtotal	120	108	89.7%	8.9	1.1	A
EB	Left Turn	89	77	86.7%	15.2	4.5	B
	Through	535	528	98.6%	7.2	0.9	A
	Right Turn						
	Subtotal	624	605	96.9%	8.2	1.0	A
WB	Left Turn						
	Through	196	167	85.1%	5.4	0.9	A
	Right Turn	309	289	93.6%	4.3	0.7	A
	Subtotal	505	456	90.3%	4.7	0.7	A
Total		1,249	1,168	93.5%	6.9	0.6	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	6	64.0%	9.7	7.5	A
	Through						
	Right Turn	10	10	104.0%	3.4	1.3	A
	Subtotal	20	17	84.0%	5.7	2.7	A
EB	Left Turn	10	11	112.0%	19.7	4.1	B
	Through	628	610	97.2%	18.8	1.9	B
	Right Turn						
	Subtotal	638	622	97.4%	18.8	2.0	B
WB	Left Turn						
	Through	495	444	89.6%	4.2	0.6	A
	Right Turn	10	11	112.0%	3.0	1.9	A
	Subtotal	505	455	90.1%	4.1	0.6	A
Total		1,163	1,093	94.0%	12.5	1.0	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	159	112.6%	18.8	1.8	B
	Through	206	219	106.4%	12.4	1.6	B
	Right Turn	7	5	74.3%	4.2	6.5	A
	Subtotal	354	383	108.2%	15.0	0.9	B
SB	Left Turn	64	56	88.1%	18.9	4.4	B
	Through	62	51	82.6%	10.5	3.5	B
	Right Turn	100	90	90.0%	4.6	1.0	A
	Subtotal	226	198	87.4%	10.3	1.5	B
EB	Left Turn	120	117	97.7%	37.1	3.1	D
	Through	408	404	99.0%	33.5	2.4	C
	Right Turn	110	98	89.1%	27.5	2.9	C
	Subtotal	638	619	97.1%	33.3	2.3	C
WB	Left Turn	10	7	72.0%	13.0	16.5	B
	Through	264	214	81.1%	9.5	1.0	A
	Right Turn	234	194	82.7%	8.0	2.5	A
	Subtotal	508	415	81.7%	9.0	1.5	A
Total		1,726	1,615	93.6%	19.9	1.2	B

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	96.0%	9.1	9.2	A
	Through						
	Right Turn	40	50	124.0%	4.8	1.5	A
	Subtotal	45	54	120.9%	5.4	1.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	469	454	96.9%	16.6	3.4	B
	Right Turn	10	10	100.0%	12.1	8.3	B
	Subtotal	479	464	97.0%	16.5	3.4	B
WB	Left Turn	101	79	78.4%	30.7	8.0	C
	Through	503	413	82.1%	7.6	1.2	A
	Right Turn						
	Subtotal	604	492	81.5%	11.5	2.1	B
Total		1,128	1,011	89.6%	13.5	2.4	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	147	149	101.2%	46.9	14.6	D
	Through	29	26	89.7%	8.7	4.3	A
	Right Turn						
	Subtotal	176	175	99.3%	41.2	12.5	D
SB	Left Turn						
	Through	323	285	88.2%	21.5	3.8	C
	Right Turn	507	345	68.0%	9.7	1.0	A
	Subtotal	830	630	75.9%	15.1	2.6	B
EB	Left Turn	309	288	93.1%	11.5	1.9	B
	Through						
	Right Turn	260	214	82.3%	6.4	1.3	A
	Subtotal	569	502	88.2%	9.3	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,575	1,306	82.9%	16.5	2.6	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	354	384	108.6%	0.2	0.1	A
	Right Turn						
	Subtotal	354	384	108.6%	0.2	0.1	A
SB	Left Turn						
	Through	182	157	86.2%	0.8	0.2	A
	Right Turn						
	Subtotal	182	157	86.2%	0.8	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		536	541	101.0%	0.4	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	52	116.4%	0.1	0.1	A
	Subtotal	45	52	116.4%	0.1	0.1	A
SB	Left Turn Through Right Turn	111	89	80.0%	0.9	0.1	A
	Subtotal	111	89	80.0%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	141	90.5%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	354	385	108.7%	0.3	0.0	A
	Subtotal	354	385	108.7%	0.3	0.0	A
SB	Left Turn Through Right Turn	182	158	86.8%	0.0	0.1	A
	Subtotal	182	158	86.8%	0.0	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		536	543	101.3%	0.2	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	45	53	117.3%	0.1	0.0	A
	Right Turn						
	Subtotal	45	53	117.3%	0.1	0.0	A
SB	Left Turn						
	Through	111	89	80.4%	0.2	0.1	A
	Right Turn						
	Subtotal	111	89	80.4%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		156	142	91.0%	0.1	0.0	A

Intersection 38 **5th St/B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	150	153	102.1%	3.9	0.6	A
	Subtotal	150	153	102.1%	3.9	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	109	118	108.6%	0.4	0.2	A
	Right Turn	20	20	102.0%	0.1	0.2	A
	Subtotal	129	139	107.6%	0.4	0.2	A
WB	Left Turn	200	164	82.0%	4.7	0.7	A
	Through	99	72	72.7%	2.3	0.7	A
	Right Turn						
	Subtotal	299	236	78.9%	4.0	0.6	A
Total		578	528	91.3%	3.0	0.3	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	510	468	91.7%	27.0	2.8	C
	Through	69	67	96.8%	28.6	4.6	C
	Right Turn	314	302	96.3%	8.6	1.0	A
	Subtotal	893	837	93.7%	20.6	2.1	C
EB	Left Turn						
	Through	594	543	91.4%	91.0	57.1	F
	Right Turn	58	59	102.1%	6.9	1.4	A
	Subtotal	652	602	92.3%	83.1	52.5	F
WB	Left Turn	660	474	71.9%	15.0	3.8	B
	Through	393	286	72.8%	8.7	1.4	A
	Right Turn						
	Subtotal	1,053	760	72.2%	12.7	2.6	B
Total		2,598	2,199	84.6%	34.8	14.0	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	62	106.9%	28.9	3.7	C
	Through	10	14	136.0%	20.0	11.5	B
	Right Turn	431	432	100.2%	9.7	1.5	A
	Subtotal	499	508	101.7%	12.4	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	432	356	82.4%	54.1	7.7	D
	Through	672	634	94.3%	2.0	0.4	A
	Right Turn						
	Subtotal	1,104	990	89.6%	20.8	3.1	C
WB	Left Turn						
	Through	995	687	69.1%	17.1	1.7	B
	Right Turn	1,393	920	66.0%	5.2	0.4	A
	Subtotal	2,388	1,607	67.3%	10.3	0.9	B
Total		3,991	3,104	77.8%	14.0	0.8	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	863	558	64.7%	283.6	78.8	F
	Through	41	29	71.2%	290.7	77.7	F
	Right Turn	13	12	92.3%	213.7	75.8	F
	Subtotal	917	600	65.4%	282.6	78.9	F
SB	Left Turn	34	28	82.4%	41.9	13.2	D
	Through	23	20	85.2%	40.8	17.4	D
	Right Turn	166	155	93.5%	20.0	7.2	B
	Subtotal	223	203	90.9%	25.5	7.5	C
EB	Left Turn	80	73	91.5%	51.6	17.1	D
	Through	688	679	98.7%	18.5	2.9	B
	Right Turn	335	322	96.2%	2.8	0.2	A
	Subtotal	1,103	1,074	97.4%	16.1	2.3	B
WB	Left Turn	18	12	68.9%	54.7	37.3	D
	Through	1,359	922	67.8%	70.7	15.1	E
	Right Turn	9	6	66.7%	58.4	34.5	E
	Subtotal	1,386	940	67.8%	70.6	14.7	E
Total		3,629	2,817	77.6%	91.0	17.0	F

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	74	83.1%	95.8	70.4	F
	Through						
	Right Turn	15	18	122.7%	4.2	2.2	A
	Subtotal	104	92	88.8%	77.5	59.2	E
SB	Left Turn	39	42	106.7%	28.5	5.6	C
	Through						
	Right Turn	17	18	103.5%	41.5	25.1	D
	Subtotal	56	59	105.7%	32.8	7.2	C
EB	Left Turn	13	12	95.4%	42.9	15.1	D
	Through	710	686	96.6%	4.0	1.0	A
	Right Turn	12	12	100.0%	3.2	1.0	A
	Subtotal	735	710	96.6%	4.6	1.1	A
WB	Left Turn	2	2	80.0%	12.9	23.9	B
	Through	1,280	882	68.9%	65.1	14.9	E
	Right Turn	10	6	64.0%	75.7	55.0	E
	Subtotal	1,292	890	68.9%	65.1	14.9	E
Total		2,187	1,751	80.1%	39.7	8.9	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	20	85.0%	41.1	9.1	D
	Through	5	8	160.0%	26.8	20.2	C
	Right Turn	24	21	88.3%	10.4	5.5	B
	Subtotal	53	50	93.6%	26.7	8.5	C
SB	Left Turn	24	19	80.0%	37.4	17.8	D
	Through	19	20	107.4%	39.7	10.0	D
	Right Turn	49	47	95.5%	26.2	8.7	C
	Subtotal	92	86	93.9%	30.9	7.4	C
EB	Left Turn	8	5	65.0%	42.4	35.1	D
	Through	751	751	100.0%	6.5	1.3	A
	Right Turn	5	5	104.0%	10.2	15.1	B
	Subtotal	764	762	99.7%	6.9	1.2	A
WB	Left Turn	11	7	65.5%	59.1	48.4	E
	Through	1,219	923	75.7%	60.5	30.5	E
	Right Turn	10	4	40.0%	89.2	116.3	F
	Subtotal	1,240	934	75.4%	60.7	30.5	E
Total		2,149	1,832	85.2%	35.2	13.8	D

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	1	30.0%	14.5	26.5	B
	Through	5	4	80.0%	26.3	24.3	C
	Right Turn	8	11	135.0%	5.4	4.0	A
	Subtotal	17	16	94.1%	16.0	9.2	B
SB	Left Turn	8	9	115.0%	21.1	18.8	C
	Through	5	5	104.0%	16.1	18.9	B
	Right Turn	70	68	97.7%	36.3	33.5	D
	Subtotal	83	83	99.8%	36.5	32.4	D
EB	Left Turn	16	17	107.5%	47.1	11.3	D
	Through	778	761	97.8%	3.7	1.1	A
	Right Turn	5	6	120.0%	2.6	3.7	A
	Subtotal	799	784	98.2%	4.6	1.4	A
WB	Left Turn	1	0	40.0%	1.7	5.3	A
	Through	1,166	1,008	86.4%	39.3	31.6	D
	Right Turn	3	2	80.0%	15.9	33.7	B
	Subtotal	1,170	1,011	86.4%	39.3	31.6	D
Total		2,069	1,894	91.5%	23.7	17.0	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	88	81.5%	40.3	7.7	D
	Through	27	25	93.3%	48.8	20.5	D
	Right Turn	519	415	79.9%	30.5	8.7	C
	Subtotal	654	528	80.7%	32.9	8.6	C
SB	Left Turn	53	57	107.2%	45.8	7.3	D
	Through	91	90	99.3%	35.3	8.3	D
	Right Turn	76	76	99.5%	34.3	4.3	C
	Subtotal	220	223	101.3%	37.5	4.5	D
EB	Left Turn	4	3	70.0%	34.6	35.2	C
	Through	703	681	96.9%	33.0	5.0	C
	Right Turn	87	77	88.3%	27.4	5.3	C
	Subtotal	794	761	95.8%	32.5	4.9	C
WB	Left Turn	217	217	100.1%	62.8	15.2	E
	Through	988	972	98.4%	25.0	3.1	C
	Right Turn	14	13	94.3%	34.4	13.6	C
	Subtotal	1,219	1,202	98.6%	32.1	5.1	C
Total		2,887	2,714	94.0%	32.8	4.2	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	36	98.9%	39.1	8.5	D
	Through	3	3	106.7%	16.9	25.0	B
	Right Turn	82	81	98.5%	11.1	2.7	B
	Subtotal	121	120	98.8%	19.9	4.0	B
SB	Left Turn	84	91	108.6%	30.3	3.8	C
	Through	63	58	92.1%	27.5	7.9	C
	Right Turn	134	152	113.4%	10.4	1.7	B
	Subtotal	281	301	107.2%	19.8	2.4	B
EB	Left Turn	37	29	77.8%	38.8	10.1	D
	Through	1,194	1,066	89.3%	9.0	1.3	A
	Right Turn	44	41	93.6%	6.9	1.8	A
	Subtotal	1,275	1,136	89.1%	9.7	1.2	A
WB	Left Turn	7	8	114.3%	34.1	24.7	C
	Through	971	986	101.5%	7.4	1.4	A
	Right Turn	17	17	101.2%	7.5	7.4	A
	Subtotal	995	1,011	101.6%	7.6	1.3	A
Total		2,672	2,568	96.1%	10.5	0.9	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	24	102.6%	38.0	9.6	D
	Through	6	7	120.0%	40.6	18.6	D
	Right Turn	30	30	101.3%	16.5	4.9	B
	Subtotal	59	61	103.7%	28.2	5.7	C
SB	Left Turn	29	28	97.9%	39.1	9.3	D
	Through	10	10	96.0%	30.8	22.9	C
	Right Turn	27	35	130.4%	15.6	6.4	B
	Subtotal	66	73	110.9%	27.0	4.3	C
EB	Left Turn	14	8	60.0%	40.3	19.8	D
	Through	1,319	1,186	89.9%	9.1	2.0	A
	Right Turn	27	28	102.2%	6.3	3.4	A
	Subtotal	1,360	1,222	89.9%	9.3	2.0	A
WB	Left Turn	18	16	86.7%	46.7	14.4	D
	Through	945	960	101.5%	6.8	1.1	A
	Right Turn	6	7	113.3%	5.3	3.6	A
	Subtotal	969	982	101.3%	7.4	1.1	A
Total		2,454	2,339	95.3%	9.5	1.4	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	54	90.7%	81.7	12.0	F
	Through	3,908	3,442	88.1%	51.8	13.1	D
	Right Turn	9	8	93.3%	35.9	28.8	D
	Subtotal	3,977	3,504	88.1%	52.3	13.1	D
SB	Left Turn						
	Through	1,912	1,849	96.7%	32.5	8.6	C
	Right Turn	897	912	101.6%	11.1	3.2	B
	Subtotal	2,809	2,761	98.3%	25.4	6.7	C
EB	Left Turn	1,106	805	72.8%	97.9	29.1	F
	Through						
	Right Turn	117	105	89.9%	40.6	23.1	D
	Subtotal	1,223	910	74.4%	91.3	29.1	F
WB	Left Turn						
	Through	5	6	112.0%	50.4	51.5	D
	Right Turn	7	8	108.6%	16.3	17.7	B
	Subtotal	12	13	110.0%	39.1	26.8	D
Total		8,021	7,189	89.6%	46.9	9.4	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	670	446	66.6%	210.0	81.2	F
	Right Turn	2	3	140.0%	183.1	77.5	F
	Subtotal	672	449	66.8%	209.9	81.1	F
SB	Left Turn	70	68	96.6%	11.1	3.1	B
	Through	306	290	94.9%	5.5	0.3	A
	Right Turn						
	Subtotal	376	358	95.2%	6.5	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	40.0%	16.7	35.2	C
	Through						
	Right Turn	247	176	71.4%	148.6	94.3	F
	Subtotal	248	177	71.3%	148.6	94.3	F
Total		1,296	984	75.9%	120.0	42.0	F

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	241	100.3%	5.5	0.5	A
	Through	45	40	88.9%	6.7	0.6	A
	Right Turn						
	Subtotal	285	281	98.5%	5.7	0.5	A
SB	Left Turn						
	Through	27	25	91.9%	8.0	0.9	A
	Right Turn	8	8	105.0%	3.6	1.7	A
	Subtotal	35	33	94.9%	7.0	0.8	A
EB	Left Turn	8	10	125.0%	4.4	0.7	A
	Through						
	Right Turn	64	60	93.8%	3.3	0.8	A
	Subtotal	72	70	97.2%	3.5	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	384	98.0%	5.4	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	55	81.2%	80.6	22.4	F
	Through	392	306	78.0%	92.0	21.2	F
	Right Turn	230	194	84.5%	89.8	24.1	F
	Subtotal	690	555	80.5%	90.4	21.5	F
SB	Left Turn	36	29	80.0%	113.6	51.7	F
	Through	266	208	78.0%	108.8	32.3	F
	Right Turn	95	76	79.6%	99.6	30.4	F
	Subtotal	397	312	78.6%	106.8	30.5	F
EB	Left Turn	241	210	87.3%	68.5	15.1	E
	Through	95	95	99.8%	52.9	8.0	D
	Right Turn	18	21	117.8%	31.3	17.6	C
	Subtotal	354	326	92.2%	61.9	11.9	E
WB	Left Turn	274	250	91.4%	63.4	13.2	E
	Through	128	118	92.2%	51.6	6.9	D
	Right Turn	19	19	98.9%	52.0	11.2	D
	Subtotal	421	387	92.0%	59.4	9.2	E
Total		1,862	1,581	84.9%	79.7	10.0	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	42	96.7%	44.9	9.2	D
	Through	87	75	86.4%	34.3	7.9	C
	Right Turn	22	22	101.8%	35.8	11.6	D
	Subtotal	152	139	91.6%	37.8	6.4	D
SB	Left Turn	5	5	104.0%	29.2	31.9	C
	Through	109	104	95.8%	38.9	3.8	D
	Right Turn	7	7	102.9%	24.7	25.2	C
	Subtotal	121	117	96.5%	38.3	5.2	D
EB	Left Turn						
	Through	241	205	85.0%	32.7	6.0	C
	Right Turn	61	48	78.0%	20.7	7.9	C
	Subtotal	302	252	83.6%	30.3	5.5	C
SW	Left Turn	34	32	94.1%	9.7	4.2	A
	Through	1,619	1,548	95.6%	13.3	2.0	B
	Right Turn	328	320	97.7%	21.0	3.6	C
	Subtotal	1,981	1,901	96.0%	14.5	2.2	B
Total		2,556	2,409	94.3%	18.7	1.8	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	51	94.8%	12.6	1.2	B
	Through	3,401	3,396	99.9%	11.3	0.7	B
	Right Turn	2	2	100.0%	1.2	2.1	A
	Subtotal	3,457	3,449	99.8%	11.3	0.7	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	264	263	99.7%	22.3	2.5	C
	Through	3	3	106.7%	10.9	9.0	B
	Right Turn						
	Subtotal	267	266	99.8%	22.3	2.4	C
WB	Left Turn						
	Through	10	7	72.0%	9.1	11.4	A
	Right Turn	3	4	146.7%	4.1	4.1	A
	Subtotal	13	12	89.2%	9.0	8.4	A
Total		3,737	3,727	99.7%	12.1	0.7	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	32	101.9%	14.6	4.2	B
	Through	13	12	89.2%	14.0	10.8	B
	Right Turn						
	Subtotal	44	43	98.2%	14.0	3.4	B
SB	Left Turn						
	Through	158	142	89.6%	13.6	2.5	B
	Right Turn	65	64	98.5%	10.3	2.3	B
	Subtotal	223	206	92.2%	12.6	2.2	B
EB	Left Turn						
	Through	8	6	70.0%	22.6	20.2	C
	Right Turn						
	Subtotal	8	6	70.0%	22.6	20.2	C
WB	Left Turn	79	70	88.1%	7.0	1.5	A
	Through	1,943	1,850	95.2%	10.0	1.4	A
	Right Turn	7	5	74.3%	4.3	1.4	A
	Subtotal	2,029	1,925	94.9%	9.9	1.4	A
Total		2,304	2,180	94.6%	10.2	1.3	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	368	334	90.7%	25.4	27.2	C
	Right Turn	23	22	93.9%	6.2	8.8	A
	Subtotal	391	355	90.8%	24.4	26.7	C
SB	Left Turn	93	85	91.6%	19.3	3.5	B
	Through	214	208	97.0%	11.6	1.6	B
	Right Turn						
	Subtotal	307	293	95.4%	13.9	1.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	58	54	93.1%	11.4	2.6	B
	Through						
	Right Turn	304	290	95.3%	15.6	9.6	B
	Subtotal	362	344	94.9%	15.0	8.4	B
Total		1,060	992	93.5%	17.9	11.2	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	227	202	88.8%	18.4	2.8	B
	Through						
	Right Turn	110	0	0.0%	0.0	0.0	A
	Subtotal	337	202	59.8%	18.4	2.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	200	2	1.0%	3.2	1.4	A
	Right Turn	358	360	100.6%	15.3	6.5	B
	Subtotal	558	362	64.9%	15.2	6.5	B
WB	Left Turn	90	0	0.0%	0.0	0.0	A
	Through	60	0	0.0%	0.0	0.0	A
	Right Turn						
	Subtotal	150	0	0.0%	0.0	0.0	A
Total		1,045	564	53.9%	13.0	4.1	B

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	378	101.0%	21.5	4.2	C
	Right Turn	318	319	100.3%	17.6	5.7	B
	Subtotal	692	696	100.6%	19.7	4.7	B
SB	Left Turn	86	92	106.5%	84.9	67.1	F
	Through	409	407	99.6%	8.6	3.0	A
	Right Turn						
	Subtotal	495	499	100.8%	23.0	14.0	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	436	369	84.7%	19.1	2.7	B
	Through						
	Right Turn	63	60	95.9%	9.5	2.5	A
	Subtotal	499	430	86.1%	17.7	2.5	B
Total		1,686	1,625	96.4%	20.3	6.2	C

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	87	80	91.5%	7.4	1.5	A
	Through						
	Right Turn	112	106	94.3%	9.1	6.5	A
	Subtotal	199	185	93.1%	8.4	4.1	A
EB	Left Turn	109	109	100.2%	11.0	3.3	B
	Through	295	299	101.3%	5.1	1.0	A
	Right Turn						
	Subtotal	404	408	101.0%	6.7	1.6	A
WB	Left Turn						
	Through	387	335	86.5%	21.9	10.9	C
	Right Turn	32	28	87.5%	10.2	1.5	B
	Subtotal	419	363	86.6%	20.9	10.0	C
Total		1,022	956	93.5%	12.6	5.4	B

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	284	274	96.6%	10.7	0.7	B
	Through						
	Right Turn	100	103	103.2%	2.8	0.4	A
	Subtotal	384	378	98.3%	8.6	0.6	A
EB	Left Turn	24	22	93.3%	14.7	4.6	B
	Through	358	352	98.3%	7.8	0.6	A
	Right Turn						
	Subtotal	382	374	98.0%	8.2	0.7	A
WB	Left Turn						
	Through	319	264	82.8%	8.1	1.2	A
	Right Turn	199	174	87.2%	3.8	0.5	A
	Subtotal	518	438	84.5%	6.4	0.9	A
Total		1,284	1,190	92.6%	7.7	0.5	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	13	128.0%	14.7	7.1	B
	Through						
	Right Turn	10	8	80.0%	2.7	1.9	A
	Subtotal	20	21	104.0%	10.6	5.8	B
EB	Left Turn	10	10	104.0%	25.2	9.9	C
	Through	632	608	96.1%	20.6	3.6	C
	Right Turn						
	Subtotal	642	618	96.3%	20.7	3.6	C
WB	Left Turn						
	Through	508	436	85.8%	4.6	0.8	A
	Right Turn	10	8	84.0%	2.5	1.9	A
	Subtotal	518	444	85.8%	4.5	0.7	A
Total		1,180	1,083	91.8%	13.9	2.3	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	87	90.4%	22.2	4.1	C
	Through	127	119	93.9%	12.1	1.9	B
	Right Turn	5	3	64.0%	2.1	2.4	A
	Subtotal	228	209	91.8%	16.1	1.0	B
SB	Left Turn	139	130	93.8%	20.8	5.1	C
	Through	219	214	97.9%	14.0	2.2	B
	Right Turn	90	88	98.2%	8.0	2.5	A
	Subtotal	448	433	96.7%	14.7	2.0	B
EB	Left Turn	80	76	95.5%	38.5	9.2	D
	Through	427	397	92.9%	40.4	24.6	D
	Right Turn	135	131	97.2%	36.0	20.6	D
	Subtotal	642	604	94.1%	39.3	22.1	D
WB	Left Turn	29	25	86.9%	34.1	16.2	C
	Through	332	271	81.7%	8.8	2.4	A
	Right Turn	130	112	85.8%	7.2	2.3	A
	Subtotal	491	408	83.1%	9.8	2.2	A
Total		1,809	1,655	91.5%	22.5	7.4	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	104.0%	9.4	9.0	A
	Through						
	Right Turn	205	197	96.0%	10.0	3.4	A
	Subtotal	210	202	96.2%	10.0	3.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	566	496	87.6%	45.0	22.1	D
	Right Turn	5	3	56.0%	44.4	51.3	D
	Subtotal	571	499	87.4%	45.1	22.3	D
WB	Left Turn	92	73	79.6%	32.5	4.9	C
	Through	486	404	83.2%	9.9	1.1	A
	Right Turn						
	Subtotal	578	478	82.6%	13.4	1.6	B
Total		1,359	1,178	86.7%	26.0	8.5	C

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	95	79	82.9%	29.4	11.3	C
	Through	191	189	98.8%	12.7	1.7	B
	Right Turn						
	Subtotal	286	268	93.6%	17.9	4.7	B
SB	Left Turn						
	Through	75	63	84.3%	15.9	4.3	B
	Right Turn	483	410	85.0%	11.2	1.5	B
	Subtotal	558	474	84.9%	11.9	1.0	B
EB	Left Turn	499	450	90.2%	35.4	7.8	D
	Through						
	Right Turn	272	237	87.1%	9.3	2.6	A
	Subtotal	771	687	89.1%	26.5	6.4	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,615	1,428	88.4%	20.0	3.1	C

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	228	226	99.3%	0.1	0.0	A
	Right Turn						
	Subtotal	228	226	99.3%	0.1	0.0	A
SB	Left Turn						
	Through	383	376	98.3%	1.6	0.2	A
	Right Turn						
	Subtotal	383	376	98.3%	1.6	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		611	603	98.7%	1.0	0.2	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	204	97.0%	0.2	0.1	A
	Subtotal	210	204	97.0%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	75	77.5%	1.0	0.2	A
	Subtotal	97	75	77.5%	1.0	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	279	90.8%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	228	227	99.5%	0.2	0.1	A
	Subtotal	228	227	99.5%	0.2	0.1	A
SB	Left Turn Through Right Turn	383	375	98.0%	0.3	0.0	A
	Subtotal	383	375	98.0%	0.3	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		611	602	98.5%	0.3	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	202	96.4%	0.1	0.0	A
	Subtotal	210	202	96.4%	0.1	0.0	A
SB	Left Turn Through Right Turn	97	78	80.0%	0.2	0.1	A
	Subtotal	97	78	80.0%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	280	91.2%	0.1	0.0	A

Intersection 38 **5th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	29	96.0%	7.2	1.7	A
	Through						
	Right Turn	280	267	95.4%	4.7	0.5	A
	Subtotal	310	296	95.5%	5.0	0.4	A
SB	Left Turn Through Right Turn						
	Subtotal						
EB	Left Turn Through Right Turn	74	71	95.7%	0.6	0.4	A
	Subtotal	74	71	95.7%	0.6	0.4	A
WB	Left Turn	150	134	89.1%	4.0	0.4	A
	Through	141	120	85.4%	2.0	0.3	A
	Right Turn						
	Subtotal	291	254	87.3%	3.1	0.3	A
Total		675	621	92.0%	3.7	0.3	A

Baseline Plus Medical Center Option 1b Mitigations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,089	881	80.9%	89.4	2.6	F
	Through	12	8	70.0%	99.6	25.4	F
	Right Turn	509	433	85.1%	67.5	3.0	E
	Subtotal	1,610	1,323	82.2%	82.3	2.4	F
EB	Left Turn						
	Through	298	318	106.7%	20.7	2.4	C
	Right Turn	46	48	104.3%	4.0	2.0	A
	Subtotal	344	366	106.4%	18.5	2.1	B
WB	Left Turn	254	225	88.5%	9.1	2.0	A
	Through	145	120	83.0%	6.4	1.8	A
	Right Turn						
	Subtotal	399	345	86.5%	8.2	1.3	A
Total		2,353	2,034	86.4%	58.2	1.4	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	51	100.4%	20.8	3.4	C
	Through	8	6	70.0%	24.8	19.1	C
	Right Turn	824	844	102.5%	27.5	8.6	C
	Subtotal	883	901	102.1%	27.2	8.3	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	134	97.8%	19.8	5.9	B
	Through	1,250	1,048	83.8%	5.5	1.2	A
	Right Turn						
	Subtotal	1,387	1,182	85.2%	7.1	1.3	A
WB	Left Turn						
	Through	348	293	84.1%	13.4	3.3	B
	Right Turn	481	419	87.1%	3.5	0.5	A
	Subtotal	829	712	85.8%	7.6	1.4	A
Total		3,099	2,794	90.2%	13.7	2.6	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	282	250	88.8%	34.8	1.9	C
	Through	11	11	98.2%	31.4	15.2	C
	Right Turn	9	9	102.2%	6.9	2.5	A
	Subtotal	302	270	89.5%	33.7	1.7	C
SB	Left Turn	36	37	103.3%	33.1	9.2	C
	Through	3	3	93.3%	22.8	26.0	C
	Right Turn	68	55	81.2%	5.9	1.1	A
	Subtotal	107	95	89.0%	17.3	4.0	B
EB	Left Turn	126	110	87.0%	37.8	5.6	D
	Through	1,124	1,031	91.7%	15.1	3.2	B
	Right Turn	824	759	92.1%	4.4	0.3	A
	Subtotal	2,074	1,900	91.6%	12.2	1.8	B
WB	Left Turn	35	32	90.3%	40.1	8.5	D
	Through	479	412	85.9%	17.8	1.8	B
	Right Turn	10	12	116.0%	13.4	7.7	B
	Subtotal	524	455	86.8%	19.1	1.8	B
Total		3,007	2,720	90.5%	15.7	1.5	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	23	108.6%	37.6	7.7	D
	Through	5	2	48.0%	19.8	28.0	B
	Right Turn	8	9	115.0%	4.6	2.4	A
	Subtotal	34	34	101.2%	29.3	7.2	C
SB	Left Turn	15	12	82.7%	46.5	17.1	D
	Through	5	5	104.0%	28.4	26.6	C
	Right Turn	17	16	94.1%	5.2	1.9	A
	Subtotal	37	34	90.8%	24.6	6.8	C
EB	Left Turn	57	54	94.0%	40.3	7.2	D
	Through	1,018	924	90.8%	4.8	1.6	A
	Right Turn	94	96	101.7%	3.6	1.9	A
	Subtotal	1,169	1,073	91.8%	6.5	1.7	A
WB	Left Turn	21	18	87.6%	40.2	10.1	D
	Through	486	415	85.3%	6.6	2.3	A
	Right Turn	34	27	80.0%	6.5	4.0	A
	Subtotal	541	460	85.1%	8.0	2.1	A
Total		1,781	1,602	89.9%	7.8	1.7	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	38	91.7%	39.2	11.2	D
	Through	3	4	120.0%	19.2	27.7	B
	Right Turn	10	15	152.0%	6.3	1.6	A
	Subtotal	54	56	104.4%	29.3	7.9	C
SB	Left Turn	5	6	120.0%	34.3	26.5	C
	Through	10	9	92.0%	28.4	19.8	C
	Right Turn	7	6	80.0%	6.8	7.9	A
	Subtotal	22	21	94.5%	29.7	7.6	C
EB	Left Turn	56	50	88.6%	35.1	8.5	D
	Through	980	878	89.6%	5.9	1.2	A
	Right Turn	5	5	96.0%	2.6	2.5	A
	Subtotal	1,041	932	89.5%	7.5	1.3	A
WB	Left Turn	24	22	93.3%	42.7	10.0	D
	Through	493	418	84.7%	6.4	2.2	A
	Right Turn	26	24	92.3%	4.5	3.5	A
	Subtotal	543	464	85.5%	8.1	1.8	A
Total		1,660	1,473	88.7%	8.8	1.6	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	16.8	21.9	B
	Through	5	4	88.0%	18.4	21.4	B
	Right Turn	5	4	88.0%	4.1	4.5	A
	Subtotal	15	11	74.7%	19.4	18.5	B
SB	Left Turn	16	16	102.5%	35.7	11.8	D
	Through	5	5	96.0%	21.5	24.8	C
	Right Turn	20	21	104.0%	6.8	3.5	A
	Subtotal	41	42	102.4%	22.3	8.2	C
EB	Left Turn	54	42	77.8%	39.2	9.0	D
	Through	933	842	90.2%	4.7	1.8	A
	Right Turn	8	6	75.0%	3.6	4.9	A
	Subtotal	995	890	89.4%	6.3	1.6	A
WB	Left Turn	9	7	75.6%	40.2	26.1	D
	Through	518	446	86.2%	8.1	1.8	A
	Right Turn	17	13	77.6%	6.4	4.1	A
	Subtotal	544	466	85.7%	8.6	1.6	A
Total		1,595	1,410	88.4%	7.6	1.5	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	35	102.4%	42.0	16.5	D
	Through	82	75	91.2%	46.3	13.5	D
	Right Turn	361	316	87.4%	36.3	9.7	D
	Subtotal	477	425	89.1%	38.5	9.9	D
SB	Left Turn	7	5	74.3%	35.6	31.1	D
	Through	17	12	68.2%	44.3	28.4	D
	Right Turn	21	17	80.0%	41.9	13.8	D
	Subtotal	45	34	74.7%	43.6	14.6	D
EB	Left Turn	124	104	83.9%	54.0	9.0	D
	Through	734	655	89.2%	34.0	5.7	C
	Right Turn	96	76	79.2%	28.9	9.0	C
	Subtotal	954	835	87.5%	36.0	5.3	D
WB	Left Turn	542	370	68.3%	110.0	30.4	F
	Through	491	415	84.5%	42.4	13.2	D
	Right Turn	14	10	71.4%	20.6	11.3	C
	Subtotal	1,047	795	76.0%	73.7	20.9	E
Total		2,523	2,089	82.8%	50.9	10.2	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	8	63.3%	28.7	15.4	C
	Through	32	32	101.3%	36.8	6.5	D
	Right Turn	12	12	96.7%	7.2	3.7	A
	Subtotal	56	52	92.1%	30.0	4.7	C
SB	Left Turn	7	4	62.9%	23.9	19.3	C
	Through	7	6	91.4%	30.4	22.0	C
	Right Turn	32	28	86.3%	7.8	4.6	A
	Subtotal	46	38	83.5%	16.1	5.9	B
EB	Left Turn	137	115	84.1%	35.6	6.5	D
	Through	926	810	87.4%	8.9	1.9	A
	Right Turn	39	31	80.0%	5.9	1.2	A
	Subtotal	1,102	956	86.8%	12.0	2.2	B
WB	Left Turn	15	15	101.3%	39.4	10.6	D
	Through	1,111	957	86.1%	10.5	2.0	B
	Right Turn	51	44	85.5%	8.4	4.4	A
	Subtotal	1,177	1,016	86.3%	10.8	1.9	B
Total		2,381	2,062	86.6%	11.9	1.5	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	15	69.1%	39.5	20.0	D
	Through	7	5	74.3%	30.1	22.8	C
	Right Turn	27	27	100.7%	9.3	4.9	A
	Subtotal	56	48	85.0%	19.9	6.2	B
SB	Left Turn	40	43	107.0%	30.4	8.8	C
	Through	11	13	116.4%	31.9	18.5	C
	Right Turn	21	24	112.4%	17.0	9.6	B
	Subtotal	72	79	110.0%	26.5	8.6	C
EB	Left Turn	26	25	95.4%	43.8	11.0	D
	Through	891	766	85.9%	10.6	2.6	B
	Right Turn	28	26	91.4%	3.7	2.9	A
	Subtotal	945	816	86.3%	11.4	2.6	B
WB	Left Turn	27	23	85.9%	44.0	11.5	D
	Through	1,134	995	87.8%	10.5	1.9	B
	Right Turn	27	24	88.9%	8.5	2.1	A
	Subtotal	1,188	1,042	87.7%	11.2	1.8	B
Total		2,261	1,985	87.8%	12.1	1.6	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	70	108.3%	72.1	11.9	E
	Through	1,035	1,043	100.8%	16.5	2.7	B
	Right Turn	2	2	100.0%	0.6	0.8	A
	Subtotal	1,102	1,116	101.2%	20.0	2.9	B
SB	Left Turn						
	Through	2,531	2,144	84.7%	65.2	9.5	E
	Right Turn	1,187	1,047	88.2%	23.3	5.5	C
	Subtotal	3,718	3,190	85.8%	51.5	8.4	D
EB	Left Turn	894	618	69.1%	107.3	15.4	F
	Through						
	Right Turn	20	16	80.0%	32.7	9.8	C
	Subtotal	914	634	69.3%	105.4	15.6	F
WB	Left Turn						
	Through	1	0	40.0%	15.9	50.2	B
	Right Turn	2	6	280.0%	5.1	4.2	A
	Subtotal	3	6	200.0%	12.5	25.5	B
Total		5,737	4,946	86.2%	51.2	6.5	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	253	232	91.9%	4.3	1.0	A
	Right Turn	3	3	106.7%	4.2	1.0	A
	Subtotal	256	236	92.0%	4.3	1.0	A
SB	Left Turn	245	224	91.3%	8.6	0.7	A
	Through	617	565	91.5%	6.2	0.2	A
	Right Turn						
	Subtotal	862	788	91.5%	6.9	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	4	120.0%	15.2	18.6	C
	Through						
	Right Turn	49	42	85.7%	3.0	0.4	A
	Subtotal	52	46	87.7%	4.5	1.8	A
Total		1,170	1,070	91.4%	6.2	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	36	82.7%	4.3	0.5	A
	Through	49	52	106.9%	5.7	0.3	A
	Right Turn						
	Subtotal	93	89	95.5%	5.1	0.3	A
SB	Left Turn						
	Through	31	29	92.9%	7.1	0.5	A
	Right Turn	8	8	100.0%	4.3	0.8	A
	Subtotal	39	37	94.4%	6.6	0.4	A
EB	Left Turn	5	4	72.0%	2.8	3.1	A
	Through						
	Right Turn	243	220	90.5%	4.1	0.5	A
	Subtotal	248	224	90.2%	4.1	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	349	91.9%	4.6	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	20	81.7%	46.7	22.5	D
	Through	288	283	98.3%	45.6	9.2	D
	Right Turn	16	15	92.5%	38.1	24.8	D
	Subtotal	328	318	96.8%	45.4	10.0	D
SB	Left Turn	11	9	80.0%	69.8	36.0	E
	Through	539	360	66.8%	50.3	18.0	D
	Right Turn	107	73	68.0%	54.0	21.4	D
	Subtotal	657	442	67.2%	51.4	17.9	D
EB	Left Turn	160	154	96.5%	49.2	11.5	D
	Through	56	51	90.7%	40.7	11.6	D
	Right Turn	53	56	105.7%	22.0	9.6	C
	Subtotal	269	261	97.1%	41.7	10.0	D
WB	Left Turn	238	211	88.6%	42.4	12.2	D
	Through	168	162	96.7%	36.7	8.1	D
	Right Turn	27	24	90.4%	49.5	11.2	D
	Subtotal	433	398	91.8%	40.7	9.4	D
Total		1,687	1,418	84.1%	45.5	7.7	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	30	95.5%	39.2	13.1	D
	Through	101	103	102.2%	35.3	7.0	D
	Right Turn	22	22	100.0%	35.9	17.7	D
	Subtotal	154	155	100.5%	36.0	4.8	D
SB	Left Turn	2	2	80.0%	18.8	35.9	B
	Through	17	14	84.7%	42.1	20.2	D
	Right Turn	9	8	84.4%	14.4	15.8	B
	Subtotal	28	24	84.3%	34.4	14.5	C
EB	Left Turn						
	Through	61	56	91.8%	32.2	12.2	C
	Right Turn	22	18	80.0%	18.9	13.0	B
	Subtotal	83	74	88.7%	29.8	11.5	C
SW	Left Turn	18	13	71.1%	9.8	9.3	A
	Through	2,289	1,924	84.0%	12.8	1.6	B
	Right Turn	325	277	85.3%	18.2	2.8	B
	Subtotal	2,632	2,214	84.1%	13.5	1.5	B
Total		2,897	2,466	85.1%	15.6	1.3	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	132	104.3%	9.7	1.7	A
	Through	1,075	1,073	99.8%	7.9	0.8	A
	Right Turn	6	5	80.0%	1.6	1.7	A
	Subtotal	1,208	1,210	100.2%	8.1	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	47	100.4%	17.9	2.7	B
	Through	6	6	93.3%	13.7	12.7	B
	Right Turn						
	Subtotal	53	53	99.6%	17.8	2.3	B
WB	Left Turn						
	Through	6	9	146.7%	14.9	9.7	B
	Right Turn	2	2	120.0%	2.5	4.7	A
	Subtotal	8	11	140.0%	12.8	8.3	B
Total		1,269	1,274	100.4%	8.5	0.8	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	100.0%	9.3	6.0	A
	Through	13	15	116.9%	10.5	6.3	B
	Right Turn						
	Subtotal	29	31	107.6%	11.1	4.4	B
SB	Left Turn						
	Through	25	23	92.8%	12.8	6.1	B
	Right Turn	33	34	101.8%	7.9	5.0	A
	Subtotal	58	57	97.9%	9.4	4.5	A
EB	Left Turn						
	Through	8	7	90.0%	15.1	7.9	B
	Right Turn						
	Subtotal	8	7	90.0%	15.1	7.9	B
WB	Left Turn	39	36	93.3%	7.0	2.0	A
	Through	2,504	2,100	83.9%	10.1	2.0	B
	Right Turn	8	8	105.0%	6.3	4.1	A
	Subtotal	2,551	2,145	84.1%	10.1	2.0	B
Total		2,646	2,240	84.7%	10.1	1.9	B

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	126	116	91.7%	2.7	0.9	A
	Right Turn	68	56	82.9%	1.6	0.4	A
	Subtotal	194	172	88.7%	2.4	0.6	A
SB	Left Turn	299	285	95.4%	14.7	1.1	B
	Through	287	251	87.5%	10.6	0.7	B
	Right Turn						
	Subtotal	586	536	91.5%	12.8	0.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	22	21	94.5%	10.9	4.4	B
	Through						
	Right Turn	71	62	87.9%	8.4	3.9	A
	Subtotal	93	83	89.5%	9.0	3.9	A
Total		873	792	90.7%	10.1	0.6	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	440	394	89.6%	10.9	1.6	B
	Through						
	Right Turn	120	110	92.0%	2.6	0.5	A
	Subtotal	560	505	90.1%	9.1	1.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	40	35	88.0%	20.5	3.7	C
	Right Turn	106	105	98.9%	10.5	2.2	B
	Subtotal	146	140	95.9%	13.0	2.5	B
WB	Left Turn	120	92	77.0%	9.7	2.9	A
	Through	100	96	95.6%	10.5	3.1	B
	Right Turn						
	Subtotal	220	188	85.5%	10.1	2.4	B
Total		926	833	89.9%	9.9	1.5	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	103	101	97.9%	10.2	1.4	B
	Through						
	Right Turn	17	16	94.1%	2.6	0.9	A
	Subtotal	120	117	97.3%	9.2	1.2	A
EB	Left Turn	89	76	85.8%	19.1	2.2	B
	Through	535	552	103.1%	12.2	1.3	B
	Right Turn						
	Subtotal	624	628	100.6%	13.1	1.2	B
WB	Left Turn						
	Through	196	158	80.6%	5.4	1.0	A
	Right Turn	309	273	88.3%	4.5	0.7	A
	Subtotal	505	431	85.3%	4.8	0.7	A
Total		1,249	1,176	94.1%	9.7	0.9	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	8	80.0%	9.1	6.3	A
	Through						
	Right Turn	10	8	84.0%	2.7	1.4	A
	Subtotal	20	16	82.0%	5.8	3.2	A
EB	Left Turn	10	10	104.0%	21.5	4.3	C
	Through	628	644	102.5%	19.0	1.7	B
	Right Turn						
	Subtotal	638	654	102.5%	19.1	1.7	B
WB	Left Turn						
	Through	495	424	85.7%	4.2	0.7	A
	Right Turn	10	12	116.0%	2.9	1.4	A
	Subtotal	505	436	86.3%	4.2	0.7	A
Total		1,163	1,106	95.1%	13.0	1.2	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	137	97.0%	17.7	4.2	B
	Through	206	206	100.2%	14.2	1.3	B
	Right Turn	7	8	120.0%	5.7	4.7	A
	Subtotal	354	352	99.3%	15.5	1.8	B
SB	Left Turn	64	60	93.1%	20.5	6.9	C
	Through	62	48	77.4%	13.7	3.0	B
	Right Turn	100	86	85.6%	4.8	1.1	A
	Subtotal	226	193	85.5%	12.0	2.3	B
EB	Left Turn	120	122	102.0%	37.1	2.9	D
	Through	408	419	102.7%	34.2	4.0	C
	Right Turn	110	103	93.5%	28.6	3.0	C
	Subtotal	638	644	101.0%	33.9	3.4	C
WB	Left Turn	10	5	52.0%	15.6	13.7	B
	Through	264	216	81.8%	10.6	1.5	B
	Right Turn	234	185	79.1%	7.6	1.1	A
	Subtotal	508	406	80.0%	9.3	1.1	A
Total		1,726	1,596	92.4%	21.0	1.4	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	9.0	10.7	A
	Through						
	Right Turn	40	44	109.0%	5.4	2.6	A
	Subtotal	45	47	104.9%	6.0	3.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	469	468	99.9%	18.5	3.2	B
	Right Turn	10	11	108.0%	9.5	6.8	A
	Subtotal	479	479	100.0%	18.3	3.1	B
WB	Left Turn	101	77	76.0%	31.7	7.1	C
	Through	503	410	81.4%	7.2	0.9	A
	Right Turn						
	Subtotal	604	486	80.5%	11.1	1.4	B
Total		1,128	1,013	89.8%	14.4	1.8	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	147	151	102.6%	54.8	25.7	D
	Through	29	30	104.8%	12.5	6.3	B
	Right Turn						
	Subtotal	176	181	103.0%	48.2	23.8	D
SB	Left Turn						
	Through	373	275	73.8%	21.6	3.8	C
	Right Turn	457	336	73.4%	9.3	1.5	A
	Subtotal	830	611	73.6%	14.8	2.4	B
EB	Left Turn	299	297	99.3%	12.9	1.6	B
	Through						
	Right Turn	210	213	101.5%	6.3	1.2	A
	Subtotal	509	510	100.2%	10.1	1.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,515	1,302	85.9%	18.0	4.3	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	354	347	98.1%	0.4	0.1	A
	Right Turn						
	Subtotal	354	347	98.1%	0.4	0.1	A
SB	Left Turn						
	Through	182	155	85.3%	0.9	0.2	A
	Right Turn						
	Subtotal	182	155	85.3%	0.9	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		536	502	93.7%	0.5	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	46	102.2%	0.1	0.1	A
	Subtotal	45	46	102.2%	0.1	0.1	A
SB	Left Turn Through Right Turn	111	86	77.8%	0.9	0.1	A
	Subtotal	111	86	77.8%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	132	84.9%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	354	346	97.7%	1.5	0.3	A
	Subtotal	354	346	97.7%	1.5	0.3	A
SB	Left Turn Through Right Turn	182	153	84.2%	0.1	0.0	A
	Subtotal	182	153	84.2%	0.1	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		536	499	93.1%	1.0	0.2	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	45	46	102.2%	0.3	0.4	A
	Right Turn						
	Subtotal	45	46	102.2%	0.3	0.4	A
SB	Left Turn						
	Through	111	86	77.8%	0.2	0.1	A
	Right Turn						
	Subtotal	111	86	77.8%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		156	132	84.9%	0.2	0.1	A

Intersection 39 **5th St/B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	160	146	91.5%	3.4	0.3	A
	Subtotal	160	146	91.5%	3.4	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	109	115	105.7%	0.6	0.2	A
	Right Turn	20	20	102.0%	0.2	0.2	A
	Subtotal	129	136	105.1%	0.5	0.2	A
WB	Left Turn	200	165	82.6%	4.4	0.5	A
	Through	99	87	87.7%	2.1	0.6	A
	Right Turn						
	Subtotal	299	252	84.3%	3.6	0.5	A
Total		588	534	90.8%	2.8	0.3	A

Intersection 45 **6th St/South Park St** **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	220	187	85.1%	1.1	0.3	A
	Subtotal	220	187	85.1%	1.1	0.3	A
EB	Left Turn	160	148	92.8%	0.9	0.2	A
	Through						
	Right Turn						
	Subtotal	160	148	92.8%	0.9	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	336	88.3%	1.0	0.2	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	510	513	100.6%	28.5	2.0	C
	Through	69	64	93.3%	30.8	4.4	C
	Right Turn	314	312	99.2%	10.3	1.6	B
	Subtotal	893	889	99.6%	22.3	1.6	C
EB	Left Turn						
	Through	594	540	90.9%	68.1	35.9	E
	Right Turn	58	64	111.0%	5.6	2.3	A
	Subtotal	652	604	92.7%	61.9	32.9	E
WB	Left Turn	660	500	75.8%	14.9	3.6	B
	Through	393	288	73.2%	8.8	1.7	A
	Right Turn						
	Subtotal	1,053	788	74.8%	12.7	2.9	B
Total		2,598	2,282	87.8%	29.2	8.8	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	54	92.4%	32.7	6.0	C
	Through	10	12	120.0%	25.5	16.0	C
	Right Turn	431	414	96.1%	9.9	1.8	A
	Subtotal	499	480	96.1%	12.9	1.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	432	359	83.1%	57.2	9.3	E
	Through	672	668	99.3%	2.0	0.5	A
	Right Turn						
	Subtotal	1,104	1,026	93.0%	21.2	2.4	C
WB	Left Turn						
	Through	995	728	73.2%	16.1	2.3	B
	Right Turn	1,393	912	65.5%	4.9	0.5	A
	Subtotal	2,388	1,641	68.7%	9.9	1.2	A
Total		3,991	3,147	78.8%	14.0	1.0	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	863	589	68.2%	258.2	69.6	F
	Through	41	28	69.3%	264.9	71.3	F
	Right Turn	13	7	55.4%	193.7	58.7	F
	Subtotal	917	624	68.1%	257.7	69.1	F
SB	Left Turn	34	33	96.5%	36.4	6.9	D
	Through	23	24	102.6%	40.0	26.9	D
	Right Turn	166	160	96.6%	19.8	4.3	B
	Subtotal	223	217	97.2%	24.7	5.2	C
EB	Left Turn	80	74	93.0%	43.4	9.9	D
	Through	688	705	102.5%	20.2	3.2	C
	Right Turn	335	331	98.9%	3.1	0.3	A
	Subtotal	1,103	1,111	100.7%	16.6	1.8	B
WB	Left Turn	18	10	57.8%	41.6	15.1	D
	Through	1,359	934	68.7%	70.4	14.8	E
	Right Turn	9	8	88.9%	59.3	40.4	E
	Subtotal	1,386	952	68.7%	70.0	14.3	E
Total		3,629	2,904	80.0%	85.3	13.4	F

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	80	89.9%	85.7	53.3	F
	Through						
	Right Turn	15	15	101.3%	4.0	2.7	A
	Subtotal	104	95	91.5%	71.2	45.9	E
SB	Left Turn	39	37	95.4%	33.1	5.3	C
	Through						
	Right Turn	17	17	101.2%	26.1	19.8	C
	Subtotal	56	54	97.1%	30.6	7.4	C
EB	Left Turn	13	14	110.8%	46.1	19.5	D
	Through	710	684	96.3%	3.7	0.9	A
	Right Turn	12	10	83.3%	2.4	1.2	A
	Subtotal	735	708	96.3%	4.4	1.1	A
WB	Left Turn	2	2	120.0%	22.2	26.6	C
	Through	1,280	873	68.2%	66.3	14.8	E
	Right Turn	10	4	36.0%	19.1	29.2	B
	Subtotal	1,292	879	68.0%	66.1	14.8	E
Total		2,187	1,736	79.4%	39.3	6.9	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	21	88.3%	50.3	27.1	D
	Through	5	8	152.0%	38.7	25.6	D
	Right Turn	24	28	115.0%	8.2	4.1	A
	Subtotal	53	56	106.4%	30.1	14.3	C
SB	Left Turn	24	26	106.7%	30.6	9.5	C
	Through	19	17	88.4%	27.9	13.2	C
	Right Turn	49	51	104.5%	23.1	5.4	C
	Subtotal	92	94	101.7%	26.5	6.3	C
EB	Left Turn	8	6	75.0%	47.5	29.4	D
	Through	751	718	95.6%	7.2	1.7	A
	Right Turn	5	4	88.0%	3.7	5.3	A
	Subtotal	764	728	95.3%	7.5	1.8	A
WB	Left Turn	11	10	94.5%	57.9	32.3	E
	Through	1,219	901	73.9%	62.6	20.1	E
	Right Turn	10	6	60.0%	88.6	107.4	F
	Subtotal	1,240	917	74.0%	62.6	20.1	E
Total		2,149	1,796	83.6%	37.1	9.1	D

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	110.0%	40.4	40.3	D
	Through	5	3	64.0%	30.3	29.8	C
	Right Turn	8	9	115.0%	8.0	4.7	A
	Subtotal	17	17	98.8%	21.5	15.5	C
SB	Left Turn	8	7	90.0%	32.4	23.1	C
	Through	5	8	160.0%	31.9	13.6	C
	Right Turn	70	57	81.1%	33.1	22.3	C
	Subtotal	83	72	86.7%	33.7	18.4	C
EB	Left Turn	16	16	100.0%	44.0	13.4	D
	Through	778	757	97.3%	4.4	1.6	A
	Right Turn	5	3	56.0%	3.2	4.6	A
	Subtotal	799	776	97.1%	5.2	1.5	A
WB	Left Turn	1	1	80.0%	25.1	44.0	C
	Through	1,166	997	85.5%	29.0	15.0	C
	Right Turn	3	4	133.3%	6.1	6.4	A
	Subtotal	1,170	1,002	85.6%	28.9	15.0	C
Total		2,069	1,866	90.2%	19.1	8.6	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	89	82.6%	45.3	6.9	D
	Through	27	25	91.9%	49.1	23.8	D
	Right Turn	519	421	81.2%	33.5	23.9	C
	Subtotal	654	535	81.8%	36.4	20.2	D
SB	Left Turn	53	52	98.1%	43.8	7.9	D
	Through	91	93	102.4%	35.5	7.5	D
	Right Turn	76	61	80.5%	34.9	5.2	C
	Subtotal	220	206	93.8%	37.4	5.5	D
EB	Left Turn	4	4	100.0%	28.5	39.1	C
	Through	703	681	96.8%	33.3	6.9	C
	Right Turn	87	86	99.3%	29.1	8.3	C
	Subtotal	794	771	97.1%	33.0	6.7	C
WB	Left Turn	217	211	97.3%	56.8	8.9	E
	Through	988	990	100.2%	24.9	3.6	C
	Right Turn	14	18	128.6%	24.7	10.2	C
	Subtotal	1,219	1,220	100.0%	30.4	4.4	C
Total		2,887	2,732	94.6%	32.9	6.6	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	35	96.7%	40.3	6.1	D
	Through	3	3	106.7%	12.0	19.7	B
	Right Turn	82	78	95.6%	11.0	3.6	B
	Subtotal	121	116	96.2%	20.2	3.6	C
SB	Left Turn	84	81	96.7%	32.5	5.2	C
	Through	63	66	104.1%	28.0	3.8	C
	Right Turn	134	140	104.5%	10.9	2.6	B
	Subtotal	281	287	102.1%	21.0	2.6	C
EB	Left Turn	37	39	105.9%	33.8	7.8	C
	Through	1,194	1,054	88.3%	9.1	1.7	A
	Right Turn	44	36	82.7%	6.8	2.1	A
	Subtotal	1,275	1,130	88.6%	9.8	1.7	A
WB	Left Turn	7	7	102.9%	44.4	20.6	D
	Through	971	981	101.1%	7.8	1.0	A
	Right Turn	17	16	94.1%	4.2	3.2	A
	Subtotal	995	1,004	100.9%	8.0	0.9	A
Total		2,672	2,538	95.0%	10.9	1.1	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	24	104.3%	33.3	11.1	C
	Through	6	4	73.3%	22.0	24.8	C
	Right Turn	30	34	114.7%	12.6	4.6	B
	Subtotal	59	63	106.4%	21.5	5.0	C
SB	Left Turn	29	30	103.4%	33.0	6.8	C
	Through	10	7	72.0%	39.6	24.6	D
	Right Turn	27	26	94.8%	11.7	4.6	B
	Subtotal	66	63	95.2%	26.3	5.1	C
EB	Left Turn	14	14	100.0%	31.2	14.1	C
	Through	1,319	1,166	88.4%	9.8	1.3	A
	Right Turn	27	26	94.8%	8.1	3.7	A
	Subtotal	1,360	1,205	88.6%	10.0	1.3	B
WB	Left Turn	18	16	88.9%	37.8	15.9	D
	Through	945	962	101.8%	7.6	1.3	A
	Right Turn	6	8	133.3%	9.7	7.0	A
	Subtotal	969	986	101.8%	8.2	1.2	A
Total		2,454	2,317	94.4%	10.0	0.9	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	53	88.0%	87.2	18.7	F
	Through	3,908	3,445	88.1%	51.2	14.7	D
	Right Turn	9	5	57.8%	21.3	26.6	C
	Subtotal	3,977	3,503	88.1%	51.7	14.4	D
SB	Left Turn						
	Through	1,912	1,842	96.4%	36.5	16.2	D
	Right Turn	897	924	103.0%	16.2	7.9	B
	Subtotal	2,809	2,766	98.5%	29.8	13.7	C
EB	Left Turn	1,106	820	74.1%	79.3	17.1	E
	Through						
	Right Turn	117	108	92.3%	24.8	12.9	C
	Subtotal	1,223	928	75.9%	73.0	16.8	E
WB	Left Turn						
	Through	5	3	64.0%	65.1	69.6	E
	Right Turn	7	5	74.3%	27.1	22.2	C
	Subtotal	12	8	70.0%	52.7	42.9	D
Total		8,021	7,205	89.8%	46.0	8.7	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	670	488	72.9%	183.6	63.4	F
	Right Turn	2	2	120.0%	158.1	61.5	F
	Subtotal	672	491	73.0%	183.5	63.4	F
SB	Left Turn	70	69	98.9%	11.6	2.6	B
	Through	306	302	98.6%	6.0	0.3	A
	Right Turn						
	Subtotal	376	371	98.6%	7.1	0.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	0.0%	18.3	57.7	C
	Through						
	Right Turn	247	160	64.9%	150.4	99.5	F
	Subtotal	248	160	64.7%	150.4	99.5	F
Total		1,296	1,022	78.9%	110.0	34.9	F

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	239	99.7%	5.4	0.4	A
	Through	45	49	108.4%	6.7	0.6	A
	Right Turn						
	Subtotal	285	288	101.1%	5.6	0.3	A
SB	Left Turn						
	Through	27	22	83.0%	8.1	1.2	A
	Right Turn	8	9	110.0%	4.7	2.4	A
	Subtotal	35	31	89.1%	7.3	1.0	A
EB	Left Turn	8	6	80.0%	3.4	2.0	A
	Through						
	Right Turn	64	66	103.8%	3.2	0.5	A
	Subtotal	72	73	101.1%	3.3	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	392	100.0%	5.3	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	68	54	79.4%	80.2	22.7	F
	Through	392	326	83.2%	81.8	19.7	F
	Right Turn	230	198	85.9%	80.0	19.3	F
	Subtotal	690	578	83.7%	80.8	19.2	F
SB	Left Turn	36	28	77.8%	131.8	36.3	F
	Through	266	206	77.4%	125.8	23.1	F
	Right Turn	95	70	73.7%	129.0	24.9	F
	Subtotal	397	304	76.6%	126.9	22.9	F
EB	Left Turn	241	224	93.1%	58.2	6.7	E
	Through	95	90	94.7%	53.2	12.2	D
	Right Turn	18	20	111.1%	42.2	18.1	D
	Subtotal	354	334	94.5%	56.1	6.8	E
WB	Left Turn	274	258	94.2%	60.7	13.1	E
	Through	128	124	97.2%	55.6	8.6	E
	Right Turn	19	14	71.6%	37.1	25.0	D
	Subtotal	421	396	94.1%	58.4	10.6	E
Total		1,862	1,612	86.6%	78.6	10.5	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	37	85.6%	45.2	10.9	D
	Through	87	95	109.0%	31.2	7.3	C
	Right Turn	22	22	98.2%	33.0	10.3	C
	Subtotal	152	153	100.8%	35.0	5.4	C
SB	Left Turn	5	4	80.0%	21.9	27.3	C
	Through	109	104	95.8%	39.4	5.9	D
	Right Turn	7	5	74.3%	19.9	20.5	B
	Subtotal	121	114	93.9%	39.0	6.6	D
EB	Left Turn						
	Through	241	199	82.5%	30.2	4.9	C
	Right Turn	61	57	93.1%	20.0	7.0	B
	Subtotal	302	256	84.6%	28.0	4.1	C
SW	Left Turn	34	43	127.1%	8.1	3.1	A
	Through	1,619	1,534	94.7%	13.3	2.5	B
	Right Turn	328	307	93.7%	21.6	4.3	C
	Subtotal	1,981	1,884	95.1%	14.5	2.6	B
Total		2,556	2,406	94.1%	18.4	2.2	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	58	108.1%	13.4	1.6	B
	Through	3,401	3,380	99.4%	11.3	0.9	B
	Right Turn	2	2	120.0%	2.9	3.8	A
	Subtotal	3,457	3,441	99.5%	11.4	0.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	264	272	102.9%	21.6	1.9	C
	Through	3	4	133.3%	13.0	12.7	B
	Right Turn						
	Subtotal	267	276	103.2%	21.6	1.9	C
WB	Left Turn						
	Through	10	8	80.0%	10.9	7.2	B
	Right Turn	3	2	80.0%	5.5	7.7	A
	Subtotal	13	10	80.0%	10.2	6.6	B
Total		3,737	3,727	99.7%	12.1	0.8	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	31	99.4%	18.8	7.4	B
	Through	13	12	95.4%	15.1	5.3	B
	Right Turn						
	Subtotal	44	43	98.2%	17.6	4.4	B
SB	Left Turn						
	Through	158	141	89.1%	15.3	3.7	B
	Right Turn	65	62	96.0%	9.3	3.1	A
	Subtotal	223	203	91.1%	13.6	3.1	B
EB	Left Turn						
	Through	8	10	125.0%	22.9	14.1	C
	Right Turn						
	Subtotal	8	10	125.0%	22.9	14.1	C
WB	Left Turn	79	71	89.6%	8.6	2.2	A
	Through	1,943	1,840	94.7%	11.4	1.1	B
	Right Turn	7	7	97.1%	5.9	2.0	A
	Subtotal	2,029	1,918	94.5%	11.2	1.1	B
Total		2,304	2,174	94.4%	11.7	1.0	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	368	350	95.0%	21.4	21.0	C
	Right Turn	23	20	85.2%	4.6	5.9	A
	Subtotal	391	369	94.4%	20.5	20.0	C
SB	Left Turn	93	83	89.0%	20.6	3.2	C
	Through	214	207	96.8%	12.8	1.0	B
	Right Turn						
	Subtotal	307	290	94.5%	15.1	1.6	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	58	55	94.5%	12.2	2.7	B
	Through						
	Right Turn	304	310	102.0%	14.9	10.5	B
	Subtotal	362	365	100.8%	14.6	9.4	B
Total		1,060	1,024	96.6%	16.8	9.9	B

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	227	205	90.4%	15.4	1.9	B
	Through						
	Right Turn	110	102	92.4%	9.4	1.5	A
	Subtotal	337	307	91.0%	13.4	1.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	200	200	100.0%	19.2	5.7	B
	Right Turn	358	363	101.3%	14.3	5.7	B
	Subtotal	558	563	100.9%	16.1	5.7	B
WB	Left Turn	90	73	81.3%	16.7	4.8	B
	Through	60	50	83.3%	17.1	4.3	B
	Right Turn						
	Subtotal	150	123	82.1%	16.9	4.1	B
Total		1,045	993	95.0%	15.4	3.6	B

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	284	302	106.5%	10.8	1.0	B
	Through						
	Right Turn	100	99	98.8%	2.8	0.7	A
	Subtotal	384	401	104.5%	8.8	0.9	A
EB	Left Turn	24	22	91.7%	20.0	4.1	B
	Through	358	346	96.6%	14.0	1.3	B
	Right Turn						
	Subtotal	382	368	96.3%	14.4	1.5	B
WB	Left Turn						
	Through	319	276	86.4%	7.7	1.0	A
	Right Turn	199	186	93.3%	3.9	0.6	A
	Subtotal	518	461	89.0%	6.2	0.8	A
Total		1,284	1,230	95.8%	9.5	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	12	116.0%	10.9	5.8	B
	Through						
	Right Turn	10	10	100.0%	2.4	2.1	A
	Subtotal	20	22	108.0%	7.6	4.9	A
EB	Left Turn	10	8	76.0%	23.1	6.8	C
	Through	632	632	100.0%	20.8	2.1	C
	Right Turn						
	Subtotal	642	640	99.6%	20.8	2.1	C
WB	Left Turn						
	Through	508	455	89.6%	4.4	0.7	A
	Right Turn	10	10	96.0%	1.9	1.6	A
	Subtotal	518	465	89.7%	4.4	0.6	A
Total		1,180	1,126	95.4%	13.8	1.5	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	94	98.3%	23.8	7.0	C
	Through	127	136	107.4%	11.8	2.9	B
	Right Turn	5	3	56.0%	2.6	4.7	A
	Subtotal	228	234	102.5%	16.6	2.4	B
SB	Left Turn	139	132	95.3%	19.2	4.3	B
	Through	219	218	99.5%	14.1	3.2	B
	Right Turn	90	86	95.6%	8.3	3.4	A
	Subtotal	448	436	97.4%	14.4	2.8	B
EB	Left Turn	80	78	97.0%	40.3	3.1	D
	Through	427	415	97.1%	35.2	5.3	D
	Right Turn	135	136	100.7%	31.5	4.4	C
	Subtotal	642	628	97.9%	35.1	4.6	D
WB	Left Turn	29	25	85.5%	32.7	18.7	C
	Through	332	292	88.0%	9.0	1.5	A
	Right Turn	130	102	78.5%	6.8	1.7	A
	Subtotal	491	419	85.3%	9.8	1.7	A
Total		1,809	1,717	94.9%	21.2	2.4	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	15.6	11.0	B
	Through						
	Right Turn	205	201	98.0%	9.5	3.2	A
	Subtotal	210	205	97.5%	9.7	3.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	566	523	92.4%	38.9	16.4	D
	Right Turn	5	4	80.0%	18.1	14.5	B
	Subtotal	571	527	92.3%	38.8	16.4	D
WB	Left Turn	92	74	80.0%	29.4	5.0	C
	Through	486	414	85.1%	9.0	1.1	A
	Right Turn						
	Subtotal	578	487	84.3%	12.1	1.4	B
Total		1,359	1,219	89.7%	23.1	6.8	C

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	95	84	88.0%	28.8	7.5	C
	Through	191	198	103.9%	15.7	5.0	B
	Right Turn						
	Subtotal	286	282	98.6%	19.7	4.6	B
SB	Left Turn						
	Through	75	60	80.0%	18.4	6.2	B
	Right Turn	483	412	85.2%	11.4	1.1	B
	Subtotal	558	472	84.5%	12.2	1.5	B
EB	Left Turn	499	462	92.5%	29.0	8.3	C
	Through						
	Right Turn	272	246	90.3%	8.1	2.1	A
	Subtotal	771	707	91.7%	21.8	6.4	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,615	1,461	90.5%	18.2	2.6	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	228	229	100.4%	0.1	0.0	A
	Right Turn						
	Subtotal	228	229	100.4%	0.1	0.0	A
SB	Left Turn						
	Through	383	379	99.0%	1.6	0.4	A
	Right Turn						
	Subtotal	383	379	99.0%	1.6	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		611	608	99.5%	1.0	0.2	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	205	97.7%	0.2	0.1	A
	Subtotal	210	205	97.7%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	79	81.6%	0.9	0.1	A
	Subtotal	97	79	81.6%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	284	92.6%	0.4	0.0	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	228	227	99.6%	0.1	0.1	A
	Subtotal	228	227	99.6%	0.1	0.1	A
SB	Left Turn Through Right Turn	383	376	98.3%	0.3	0.1	A
	Subtotal	383	376	98.3%	0.3	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		611	604	98.8%	0.2	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	210	205	97.7%	0.1	0.0	A
	Right Turn						
	Subtotal	210	205	97.7%	0.1	0.0	A
SB	Left Turn						
	Through	97	80	82.9%	0.2	0.1	A
	Right Turn						
	Subtotal	97	80	82.9%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		307	286	93.0%	0.1	0.0	A

Intersection 38 **6th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	30	98.7%	9.5	2.1	A
	Through						
	Right Turn	280	265	94.7%	6.7	1.1	A
	Subtotal	310	295	95.1%	6.9	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	74	74	100.5%	0.9	0.8	A
	Right Turn						
	Subtotal	74	74	100.5%	0.9	0.8	A
WB	Left Turn	150	128	85.1%	3.7	0.3	A
	Through	141	116	82.6%	1.9	0.3	A
	Right Turn						
	Subtotal	291	244	83.8%	2.8	0.3	A
Total		675	613	90.8%	4.6	0.7	A

Intersection 45 **6th St/South Park St** **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	150	126	84.3%	0.8	0.2	A
	Subtotal	150	126	84.3%	0.8	0.2	A
EB	Left Turn	310	299	96.5%	1.9	0.2	A
	Through						
	Right Turn						
	Subtotal	310	299	96.5%	1.9	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		460	426	92.5%	1.5	0.1	A

Baseline Plus Medical Center Option 1a Mitigations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	1,089	888	81.5%	89.9	3.4	F
	Through	12	8	66.7%	94.8	17.8	F
	Right Turn	509	414	81.3%	68.1	2.5	E
	Subtotal	1,610	1,309	81.3%	83.1	3.5	F
EB	Left Turn						
	Through	298	307	103.1%	20.7	2.6	C
	Right Turn	46	55	119.1%	5.0	3.8	A
	Subtotal	344	362	105.2%	18.3	2.7	B
WB	Left Turn	254	223	87.7%	9.1	2.9	A
	Through	145	131	90.5%	8.1	2.2	A
	Right Turn						
	Subtotal	399	354	88.7%	8.6	2.2	A
Total		2,353	2,025	86.1%	58.5	1.7	E

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	48	94.1%	24.8	5.2	C
	Through	8	10	130.0%	17.7	13.1	B
	Right Turn	824	824	100.0%	34.6	14.8	C
	Subtotal	883	882	99.9%	33.8	14.0	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	137	100.1%	15.5	4.0	B
	Through	1,250	1,028	82.2%	6.7	1.7	A
	Right Turn						
	Subtotal	1,387	1,165	84.0%	7.8	1.2	A
WB	Left Turn						
	Through	348	303	87.0%	15.5	3.3	B
	Right Turn	481	437	90.9%	3.3	0.5	A
	Subtotal	829	740	89.3%	8.3	1.4	A
Total		3,099	2,787	89.9%	16.0	4.4	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	282	254	90.2%	36.8	9.8	D
	Through	11	14	127.3%	38.5	23.8	D
	Right Turn	9	8	84.4%	6.0	4.8	A
	Subtotal	302	276	91.4%	36.3	9.9	D
SB	Left Turn	36	41	113.3%	47.5	22.0	D
	Through	3	5	160.0%	33.3	32.1	C
	Right Turn	68	72	105.9%	7.4	1.2	A
	Subtotal	107	118	109.9%	23.5	8.0	C
EB	Left Turn	126	106	84.4%	40.7	10.8	D
	Through	1,124	1,011	90.0%	17.6	5.8	B
	Right Turn	824	726	88.1%	4.3	0.5	A
	Subtotal	2,074	1,844	88.9%	13.6	3.3	B
WB	Left Turn	35	29	83.4%	33.6	18.2	C
	Through	479	428	89.4%	18.3	3.4	B
	Right Turn	10	9	92.0%	11.7	9.2	B
	Subtotal	524	466	89.0%	19.1	2.7	B
Total		3,007	2,704	89.9%	17.2	3.2	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	17	80.0%	35.9	5.4	D
	Through	5	5	104.0%	30.9	26.2	C
	Right Turn	8	9	110.0%	7.8	6.1	A
	Subtotal	34	31	90.6%	29.4	5.0	C
SB	Left Turn	15	16	109.3%	34.6	12.2	C
	Through	5	6	128.0%	21.0	19.3	C
	Right Turn	17	19	112.9%	6.6	3.2	A
	Subtotal	37	42	113.5%	22.0	9.9	C
EB	Left Turn	57	49	86.3%	39.8	9.4	D
	Through	1,018	931	91.5%	4.8	1.0	A
	Right Turn	94	85	90.6%	3.7	1.0	A
	Subtotal	1,169	1,066	91.2%	6.4	0.9	A
WB	Left Turn	21	20	93.3%	32.2	16.1	C
	Through	486	435	89.5%	6.1	1.8	A
	Right Turn	34	28	82.4%	4.7	2.4	A
	Subtotal	541	482	89.2%	7.2	1.5	A
Total		1,781	1,621	91.0%	7.4	0.9	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	37	90.7%	40.7	7.9	D
	Through	3	2	66.7%	9.2	17.5	A
	Right Turn	10	10	96.0%	9.5	8.0	A
	Subtotal	54	49	90.4%	34.2	4.1	C
SB	Left Turn	5	7	144.0%	41.8	25.2	D
	Through	10	12	120.0%	46.9	17.0	D
	Right Turn	7	8	120.0%	6.1	7.0	A
	Subtotal	22	28	125.5%	32.7	10.9	C
EB	Left Turn	56	49	87.1%	37.1	8.7	D
	Through	980	897	91.6%	7.6	1.8	A
	Right Turn	5	3	64.0%	2.7	5.1	A
	Subtotal	1,041	949	91.2%	9.1	1.8	A
WB	Left Turn	24	22	90.0%	42.0	9.0	D
	Through	493	440	89.3%	7.1	1.7	A
	Right Turn	26	20	75.4%	4.9	2.9	A
	Subtotal	543	482	88.7%	8.6	1.7	A
Total		1,660	1,507	90.8%	10.2	1.7	B

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	22.7	30.6	C
	Through	5	5	96.0%	24.1	20.5	C
	Right Turn	5	5	104.0%	5.5	6.2	A
	Subtotal	15	12	82.7%	21.8	11.6	C
SB	Left Turn	16	21	132.5%	37.6	11.2	D
	Through	5	4	88.0%	33.8	26.5	C
	Right Turn	20	24	120.0%	5.0	2.0	A
	Subtotal	41	50	121.0%	21.8	6.4	C
EB	Left Turn	54	43	80.0%	46.4	12.9	D
	Through	933	872	93.4%	6.0	2.8	A
	Right Turn	8	4	50.0%	4.4	5.5	A
	Subtotal	995	919	92.3%	7.8	2.4	A
WB	Left Turn	9	8	84.4%	50.0	21.8	D
	Through	518	463	89.3%	7.7	1.8	A
	Right Turn	17	14	84.7%	5.9	5.8	A
	Subtotal	544	485	89.1%	8.4	2.0	A
Total		1,595	1,466	91.9%	8.7	1.9	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	33	97.6%	52.6	11.0	D
	Through	82	76	92.7%	43.0	16.4	D
	Right Turn	361	330	91.3%	35.7	16.5	D
	Subtotal	477	439	92.0%	38.1	15.0	D
SB	Left Turn	7	5	74.3%	21.2	30.0	C
	Through	17	19	110.6%	42.4	11.0	D
	Right Turn	21	20	95.2%	29.9	10.4	C
	Subtotal	45	44	97.8%	36.1	9.6	D
EB	Left Turn	124	115	92.9%	52.5	5.7	D
	Through	734	672	91.6%	37.4	7.6	D
	Right Turn	96	81	84.6%	31.1	13.5	C
	Subtotal	954	869	91.1%	38.8	7.4	D
WB	Left Turn	542	363	66.9%	140.3	39.1	F
	Through	491	436	88.8%	54.8	21.0	D
	Right Turn	14	10	68.6%	49.4	27.1	D
	Subtotal	1,047	808	77.2%	92.7	26.8	F
Total		2,523	2,160	85.6%	58.8	14.1	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	13	106.7%	28.7	17.6	C
	Through	32	31	96.3%	35.2	12.8	D
	Right Turn	12	11	90.0%	4.1	2.8	A
	Subtotal	56	54	97.1%	30.0	9.9	C
SB	Left Turn	7	11	154.3%	33.2	16.1	C
	Through	7	8	108.6%	32.8	18.8	C
	Right Turn	32	34	105.0%	9.9	5.5	A
	Subtotal	46	52	113.0%	20.1	5.3	C
EB	Left Turn	137	130	94.6%	38.8	3.9	D
	Through	926	825	89.1%	9.1	1.8	A
	Right Turn	39	38	97.4%	5.0	0.7	A
	Subtotal	1,102	992	90.1%	12.8	1.4	B
WB	Left Turn	15	18	117.3%	34.7	14.1	C
	Through	1,111	970	87.3%	16.6	8.4	B
	Right Turn	51	48	94.1%	6.9	2.4	A
	Subtotal	1,177	1,035	88.0%	16.4	8.0	B
Total		2,381	2,134	89.6%	15.2	4.3	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	15	67.3%	32.9	14.7	C
	Through	7	7	97.1%	39.1	25.4	D
	Right Turn	27	31	114.1%	11.8	7.0	B
	Subtotal	56	52	93.6%	21.7	6.6	C
SB	Left Turn	40	36	90.0%	36.6	7.6	D
	Through	11	10	94.5%	29.6	20.3	C
	Right Turn	21	21	101.0%	16.8	9.3	B
	Subtotal	72	68	93.9%	29.8	8.1	C
EB	Left Turn	26	22	86.2%	37.0	12.9	D
	Through	891	774	86.9%	12.1	2.8	B
	Right Turn	28	22	80.0%	7.2	5.4	A
	Subtotal	945	819	86.6%	12.6	2.7	B
WB	Left Turn	27	28	103.7%	44.7	8.8	D
	Through	1,134	1,026	90.4%	11.5	2.1	B
	Right Turn	27	24	90.4%	8.4	3.1	A
	Subtotal	1,188	1,078	90.7%	12.3	2.0	B
Total		2,261	2,017	89.2%	13.2	1.9	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	59	91.1%	70.4	12.1	E
	Through	1,035	1,024	98.9%	15.2	1.8	B
	Right Turn	2	3	160.0%	0.8	0.8	A
	Subtotal	1,102	1,086	98.5%	18.1	2.1	B
SB	Left Turn						
	Through	2,531	2,182	86.2%	62.2	5.7	E
	Right Turn	1,187	1,074	90.5%	21.6	6.0	C
	Subtotal	3,718	3,257	87.6%	48.8	6.2	D
EB	Left Turn	894	609	68.1%	106.2	24.3	F
	Through						
	Right Turn	20	18	92.0%	32.5	20.0	C
	Subtotal	914	628	68.7%	104.1	24.5	F
WB	Left Turn						
	Through	1	0	40.0%	3.6	11.3	A
	Right Turn	2	3	140.0%	2.9	2.9	A
	Subtotal	3	3	106.7%	4.5	6.1	A
Total		5,737	4,974	86.7%	49.0	6.1	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	194	241	124.1%	2.3	0.2	A
	Right Turn	3	5	173.3%	2.2	0.1	A
	Subtotal	197	246	124.9%	2.3	0.2	A
SB	Left Turn	245	214	87.3%	8.7	0.6	A
	Through	583	540	92.6%	6.1	0.4	A
	Right Turn						
	Subtotal	828	754	91.0%	6.9	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	3	93.3%	9.9	12.0	A
	Through						
	Right Turn	49	39	80.0%	3.2	0.6	A
	Subtotal	52	42	80.8%	4.3	1.6	A
Total		1,077	1,042	96.7%	5.7	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	36	81.8%	4.4	0.5	A
	Through	49	47	95.5%	5.5	0.4	A
	Right Turn						
	Subtotal	93	83	89.0%	5.0	0.4	A
SB	Left Turn						
	Through	31	30	98.1%	7.7	0.9	A
	Right Turn	8	6	75.0%	2.7	2.0	A
	Subtotal	39	36	93.3%	6.9	0.5	A
EB	Left Turn	5	4	88.0%	2.5	2.3	A
	Through						
	Right Turn	243	212	87.4%	4.3	0.4	A
	Subtotal	248	217	87.4%	4.2	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	336	88.4%	4.7	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	22	90.0%	43.9	13.7	D
	Through	438	419	95.7%	20.3	3.4	C
	Right Turn	26	25	96.9%	20.2	9.8	C
	Subtotal	488	466	95.5%	21.4	3.2	C
SB	Left Turn	11	8	69.1%	50.9	14.5	D
	Through	639	456	71.3%	25.0	6.5	C
	Right Turn	7	6	85.7%	19.3	14.8	B
	Subtotal	657	469	71.4%	25.3	6.6	C
EB	Left Turn	10	6	56.0%	24.0	20.3	C
	Through	46	45	98.3%	32.8	5.4	C
	Right Turn	73	72	98.6%	17.4	4.3	B
	Subtotal	129	123	95.2%	23.7	3.8	C
WB	Left Turn	338	303	89.6%	27.1	5.0	C
	Through	68	60	88.2%	15.4	6.4	B
	Right Turn	27	28	105.2%	13.5	6.6	B
	Subtotal	433	391	90.3%	24.4	4.5	C
Total		1,707	1,449	84.9%	23.7	2.9	C

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	27	87.7%	41.0	6.8	D
	Through	101	103	102.2%	38.9	5.0	D
	Right Turn	22	20	89.1%	41.6	7.3	D
	Subtotal	154	150	97.4%	39.7	4.6	D
SB	Left Turn	2	1	60.0%	15.6	23.5	B
	Through	17	16	94.1%	43.8	20.7	D
	Right Turn	9	8	93.3%	35.3	22.2	D
	Subtotal	28	26	91.4%	44.6	14.7	D
EB	Left Turn						
	Through	61	59	97.0%	34.7	8.3	C
	Right Turn	22	18	83.6%	15.9	7.4	B
	Subtotal	83	78	93.5%	29.9	7.5	C
SW	Left Turn	18	9	48.9%	9.0	4.8	A
	Through	2,289	1,908	83.3%	11.5	1.8	B
	Right Turn	325	287	88.4%	17.1	2.3	B
	Subtotal	2,632	2,204	83.7%	12.2	1.7	B
Total		2,897	2,457	84.8%	14.8	1.9	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	114	90.1%	9.2	1.6	A
	Through	1,075	1,064	99.0%	7.7	0.8	A
	Right Turn	6	6	106.7%	1.0	1.1	A
	Subtotal	1,208	1,185	98.1%	7.8	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	48	102.1%	15.7	2.9	B
	Through	6	7	120.0%	13.1	8.4	B
	Right Turn						
	Subtotal	53	55	104.2%	15.1	3.0	B
WB	Left Turn						
	Through	6	7	120.0%	10.0	10.6	A
	Right Turn	2	2	80.0%	1.8	2.5	A
	Subtotal	8	9	110.0%	8.8	9.1	A
Total		1,269	1,249	98.4%	8.2	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	100.0%	12.6	6.8	B
	Through	13	14	110.8%	13.6	4.5	B
	Right Turn						
	Subtotal	29	30	104.8%	12.3	4.6	B
SB	Left Turn						
	Through	25	23	91.2%	9.8	4.9	A
	Right Turn	33	22	66.7%	5.6	3.8	A
	Subtotal	58	45	77.2%	7.6	3.3	A
EB	Left Turn						
	Through	8	8	100.0%	20.4	11.9	C
	Right Turn						
	Subtotal	8	8	100.0%	20.4	11.9	C
WB	Left Turn	39	30	75.9%	5.9	2.3	A
	Through	2,504	2,152	86.0%	9.8	1.6	A
	Right Turn	8	8	105.0%	5.5	1.6	A
	Subtotal	2,551	2,190	85.9%	9.7	1.6	A
Total		2,646	2,274	85.9%	9.7	1.5	A

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	126	123	97.8%	0.7	0.1	A
	Right Turn	68	62	91.2%	0.8	0.3	A
	Subtotal	194	185	95.5%	0.7	0.2	A
SB	Left Turn	299	277	92.7%	11.9	0.5	B
	Through	287	239	83.3%	9.1	0.6	A
	Right Turn						
	Subtotal	586	516	88.1%	10.6	0.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	22	24	110.9%	16.2	6.2	C
	Through						
	Right Turn	71	61	86.2%	7.4	3.4	A
	Subtotal	93	86	92.0%	10.0	3.5	B
Total		873	787	90.2%	8.2	0.5	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	540	468	86.7%	2.2	0.3	A
	Through						
	Right Turn						
	Subtotal	540	468	86.7%	2.2	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	146	150	103.0%	6.7	1.7	A
	Subtotal	146	150	103.0%	6.7	1.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		686	619	90.2%	3.3	0.5	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	103	95	92.0%	10.5	1.1	B
	Through						
	Right Turn	17	19	110.6%	2.4	1.2	A
	Subtotal	120	114	94.7%	9.2	1.0	A
EB	Left Turn	89	84	94.4%	11.2	2.6	B
	Through	535	518	96.7%	6.2	0.7	A
	Right Turn						
	Subtotal	624	602	96.4%	6.9	0.7	A
WB	Left Turn						
	Through	196	176	89.6%	5.1	0.9	A
	Right Turn	309	236	76.4%	3.7	0.6	A
	Subtotal	505	412	81.5%	4.3	0.7	A
Total		1,249	1,127	90.2%	6.2	0.6	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	9	88.0%	11.2	7.1	B
	Through						
	Right Turn	10	10	96.0%	2.7	2.1	A
	Subtotal	20	18	92.0%	8.0	4.4	A
EB	Left Turn	10	10	96.0%	14.9	4.0	B
	Through	628	604	96.1%	12.7	1.0	B
	Right Turn						
	Subtotal	638	613	96.1%	12.7	1.0	B
WB	Left Turn						
	Through	495	406	82.0%	3.9	0.4	A
	Right Turn	10	8	80.0%	3.1	2.0	A
	Subtotal	505	414	82.0%	3.9	0.4	A
Total		1,163	1,046	89.9%	9.2	0.8	A

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	132	93.3%	14.9	1.8	B
	Through	206	215	104.3%	13.5	1.1	B
	Right Turn	7	6	85.7%	10.5	9.0	B
	Subtotal	354	352	99.5%	14.0	1.1	B
SB	Left Turn	84	88	104.3%	19.6	4.4	B
	Through	62	63	101.9%	11.5	3.6	B
	Right Turn						
	Subtotal	146	151	103.3%	16.1	2.8	B
EB	Left Turn						
	Through	528	502	95.1%	29.9	3.7	C
	Right Turn	110	104	94.2%	24.9	3.8	C
	Subtotal	638	606	94.9%	29.1	3.7	C
WB	Left Turn	10	10	100.0%	19.1	21.4	B
	Through	364	288	79.0%	11.2	1.5	B
	Right Turn	334	256	76.6%	10.6	1.9	B
	Subtotal	708	554	78.2%	11.2	1.5	B
Total		1,846	1,662	90.1%	18.8	1.6	B

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	6.5	8.6	A
	Through						
	Right Turn	40	39	97.0%	5.8	3.0	A
	Subtotal	45	42	92.4%	6.2	2.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	609	572	93.9%	27.5	8.6	C
	Right Turn	10	12	116.0%	18.2	7.7	B
	Subtotal	619	584	94.3%	27.3	8.5	C
WB	Left Turn	101	80	79.6%	31.3	6.4	C
	Through	703	558	79.3%	9.1	0.8	A
	Right Turn						
	Subtotal	804	638	79.4%	11.9	1.2	B
Total		1,468	1,263	86.0%	18.8	4.3	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	147	148	101.0%	57.9	30.1	E
	Through	29	32	110.3%	11.7	5.0	B
	Right Turn						
	Subtotal	176	180	102.5%	50.6	27.5	D
SB	Left Turn						
	Through	393	327	83.3%	23.0	3.3	C
	Right Turn	657	490	74.6%	12.3	1.6	B
	Subtotal	1,050	818	77.9%	16.6	2.0	B
EB	Left Turn	459	436	95.0%	14.9	1.3	B
	Through						
	Right Turn	190	171	89.9%	7.1	1.5	A
	Subtotal	649	607	93.5%	12.7	1.1	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,875	1,605	85.6%	19.0	3.8	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	354	352	99.4%	0.2	0.1	A
	Right Turn						
	Subtotal	354	352	99.4%	0.2	0.1	A
SB	Left Turn						
	Through	182	176	96.7%	0.9	0.2	A
	Right Turn						
	Subtotal	182	176	96.7%	0.9	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		536	528	98.5%	0.4	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	42	94.2%	0.0	0.0	A
	Subtotal	45	42	94.2%	0.0	0.0	A
SB	Left Turn Through Right Turn	111	91	82.2%	0.9	0.2	A
	Subtotal	111	91	82.2%	0.9	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	134	85.6%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	354	352	99.5%	0.3	0.0	A
	Subtotal	354	352	99.5%	0.3	0.0	A
SB	Left Turn Through Right Turn	182	175	96.0%	0.0	0.1	A
	Subtotal	182	175	96.0%	0.0	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		536	527	98.4%	0.2	0.0	A

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline Plus Medical Center**
Volume and Delay by Movement **AM Peak Hour**

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	42	93.3%	0.1	0.0	A
	Subtotal	45	42	93.3%	0.1	0.0	A
SB	Left Turn Through Right Turn	111	91	81.8%	0.1	0.1	A
	Subtotal	111	91	81.8%	0.1	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	133	85.1%	0.1	0.1	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	510	505	99.0%	27.1	1.8	C
	Through	69	61	88.1%	28.5	4.5	C
	Right Turn	314	309	98.5%	9.5	1.5	A
	Subtotal	893	875	98.0%	21.0	1.6	C
EB	Left Turn						
	Through	594	540	91.0%	77.7	39.7	E
	Right Turn	58	65	111.7%	7.3	3.1	A
	Subtotal	652	605	92.8%	70.3	35.9	E
WB	Left Turn	660	467	70.7%	15.0	4.4	B
	Through	393	282	71.9%	8.4	2.1	A
	Right Turn						
	Subtotal	1,053	749	71.1%	12.5	3.3	B
Total		2,598	2,229	85.8%	31.7	10.0	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	58	100.0%	25.5	6.4	C
	Through	10	9	92.0%	16.4	15.9	B
	Right Turn	431	418	96.9%	10.3	1.0	B
	Subtotal	499	485	97.2%	12.5	1.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	432	363	84.0%	57.6	5.3	E
	Through	672	663	98.7%	1.9	0.4	A
	Right Turn						
	Subtotal	1,104	1,026	92.9%	21.7	2.5	C
WB	Left Turn						
	Through	995	680	68.4%	15.5	2.2	B
	Right Turn	1,393	894	64.2%	5.1	0.5	A
	Subtotal	2,388	1,575	65.9%	9.5	1.1	A
Total		3,991	3,086	77.3%	14.0	0.9	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	863	578	67.0%	220.7	67.4	F
	Through	41	29	71.2%	228.8	66.4	F
	Right Turn	13	9	70.8%	153.3	69.0	F
	Subtotal	917	616	67.2%	220.2	67.2	F
SB	Left Turn	34	35	102.4%	52.6	17.1	D
	Through	23	30	128.7%	38.0	10.8	D
	Right Turn	166	166	100.0%	22.5	8.6	C
	Subtotal	223	230	103.3%	29.0	8.8	C
EB	Left Turn	80	80	100.0%	46.0	9.8	D
	Through	688	695	101.0%	21.6	3.3	C
	Right Turn	335	326	97.2%	3.0	0.4	A
	Subtotal	1,103	1,101	99.8%	17.9	2.1	B
WB	Left Turn	18	17	95.6%	53.0	15.0	D
	Through	1,359	856	63.0%	75.5	10.4	E
	Right Turn	9	5	53.3%	66.4	53.3	E
	Subtotal	1,386	878	63.4%	75.2	10.1	E
Total		3,629	2,826	77.9%	79.6	10.9	E

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	82	91.7%	104.4	35.2	F
	Through						
	Right Turn	15	18	117.3%	4.6	3.1	A
	Subtotal	104	99	95.4%	86.8	32.8	F
SB	Left Turn	39	34	86.2%	30.6	7.1	C
	Through						
	Right Turn	17	16	91.8%	30.9	27.7	C
	Subtotal	56	49	87.9%	31.8	13.2	C
EB	Left Turn	13	13	98.5%	46.0	12.9	D
	Through	710	699	98.5%	4.6	1.1	A
	Right Turn	12	14	113.3%	2.8	1.2	A
	Subtotal	735	726	98.7%	5.3	1.2	A
WB	Left Turn	2	1	40.0%	10.9	24.9	B
	Through	1,280	818	63.9%	71.3	12.1	E
	Right Turn	10	8	76.0%	88.0	53.4	F
	Subtotal	1,292	827	64.0%	71.4	11.9	E
Total		2,187	1,701	77.8%	42.6	5.8	D

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	25	105.0%	45.9	13.7	D
	Through	5	4	88.0%	21.8	27.6	C
	Right Turn	24	30	125.0%	8.8	3.3	A
	Subtotal	53	60	112.5%	25.3	7.1	C
SB	Left Turn	24	20	81.7%	38.3	14.5	D
	Through	19	23	120.0%	35.2	13.7	D
	Right Turn	49	48	98.8%	26.8	7.7	C
	Subtotal	92	91	98.7%	32.0	6.3	C
EB	Left Turn	8	9	115.0%	30.6	18.2	C
	Through	751	740	98.5%	7.3	1.6	A
	Right Turn	5	2	48.0%	1.9	4.4	A
	Subtotal	764	751	98.3%	7.6	1.8	A
WB	Left Turn	11	6	58.2%	47.4	36.2	D
	Through	1,219	831	68.2%	73.6	23.4	E
	Right Turn	10	6	56.0%	79.1	75.3	E
	Subtotal	1,240	843	68.0%	73.5	23.2	E
Total		2,149	1,744	81.2%	40.4	9.2	D

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	80.0%	24.7	28.7	C
	Through	5	6	112.0%	23.2	20.3	C
	Right Turn	8	8	95.0%	6.4	5.7	A
	Subtotal	17	16	96.5%	20.7	10.9	C
SB	Left Turn	8	8	105.0%	30.3	19.6	C
	Through	5	4	80.0%	24.5	22.7	C
	Right Turn	70	65	93.1%	17.1	6.2	B
	Subtotal	83	78	93.5%	20.0	4.5	B
EB	Left Turn	16	15	95.0%	39.3	12.0	D
	Through	778	766	98.5%	4.0	1.9	A
	Right Turn	5	5	104.0%	1.9	1.8	A
	Subtotal	799	786	98.4%	4.7	1.9	A
WB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	1,166	931	79.9%	40.3	24.4	D
	Right Turn	3	2	80.0%	5.3	7.6	A
	Subtotal	1,170	934	79.8%	40.2	24.4	D
Total		2,069	1,814	87.7%	23.2	12.0	C

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	81	75.2%	38.5	7.2	D
	Through	27	20	75.6%	49.4	19.6	D
	Right Turn	519	429	82.6%	32.6	10.8	C
	Subtotal	654	530	81.1%	34.3	9.8	C
SB	Left Turn	53	52	98.1%	48.5	7.6	D
	Through	91	89	97.6%	34.3	9.8	C
	Right Turn	76	75	98.9%	39.7	7.9	D
	Subtotal	220	216	98.2%	39.4	6.3	D
EB	Left Turn	4	6	150.0%	60.6	32.8	E
	Through	703	678	96.4%	37.4	8.0	D
	Right Turn	87	78	89.2%	32.9	12.1	C
	Subtotal	794	761	95.9%	37.2	8.1	D
WB	Left Turn	217	212	97.7%	56.4	6.9	E
	Through	988	941	95.2%	29.7	7.0	C
	Right Turn	14	12	88.6%	31.5	17.4	C
	Subtotal	1,219	1,165	95.6%	34.7	6.5	C
Total		2,887	2,673	92.6%	35.7	6.6	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	40	111.1%	37.4	3.9	D
	Through	3	3	106.7%	14.7	24.3	B
	Right Turn	82	76	92.7%	10.9	3.5	B
	Subtotal	121	119	98.5%	20.2	2.2	C
SB	Left Turn	84	83	98.6%	30.7	4.6	C
	Through	63	58	92.7%	23.8	3.4	C
	Right Turn	134	132	98.5%	10.0	2.7	A
	Subtotal	281	273	97.2%	19.2	2.1	B
EB	Left Turn	37	37	99.5%	39.2	8.8	D
	Through	1,194	1,079	90.4%	8.7	1.1	A
	Right Turn	44	36	82.7%	5.8	0.8	A
	Subtotal	1,275	1,152	90.4%	9.6	1.0	A
WB	Left Turn	7	7	102.9%	43.0	16.0	D
	Through	971	943	97.1%	7.9	0.9	A
	Right Turn	17	18	103.5%	5.2	2.2	A
	Subtotal	995	968	97.2%	8.2	0.8	A
Total		2,672	2,512	94.0%	10.6	0.5	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	21	92.2%	39.5	11.8	D
	Through	6	4	73.3%	30.6	28.6	C
	Right Turn	30	39	129.3%	16.0	6.4	B
	Subtotal	59	64	109.2%	25.2	6.7	C
SB	Left Turn	29	26	91.0%	36.9	10.8	D
	Through	10	9	88.0%	34.5	22.5	C
	Right Turn	27	28	102.2%	13.5	5.1	B
	Subtotal	66	63	95.2%	26.9	5.3	C
EB	Left Turn	14	12	88.6%	42.4	23.2	D
	Through	1,319	1,198	90.9%	10.1	1.7	B
	Right Turn	27	24	87.4%	7.5	5.7	A
	Subtotal	1,360	1,234	90.8%	10.4	1.7	B
WB	Left Turn	18	18	100.0%	38.3	9.1	D
	Through	945	910	96.3%	7.3	1.0	A
	Right Turn	6	7	120.0%	9.0	6.7	A
	Subtotal	969	936	96.6%	8.0	1.1	A
Total		2,454	2,297	93.6%	10.3	1.2	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	51	85.3%	92.8	21.8	F
	Through	3,908	3,458	88.5%	55.9	6.5	E
	Right Turn	9	8	88.9%	48.5	29.0	D
	Subtotal	3,977	3,518	88.4%	56.5	6.5	E
SB	Left Turn						
	Through	1,912	1,853	96.9%	34.9	14.7	C
	Right Turn	897	882	98.3%	12.8	6.5	B
	Subtotal	2,809	2,735	97.4%	27.8	11.9	C
EB	Left Turn	1,106	832	75.3%	95.1	19.9	F
	Through						
	Right Turn	117	106	90.3%	40.2	17.3	D
	Subtotal	1,223	938	76.7%	89.0	19.9	F
WB	Left Turn						
	Through	5	5	96.0%	72.2	75.5	E
	Right Turn	7	8	108.6%	21.0	26.7	C
	Subtotal	12	12	103.3%	58.6	45.0	E
Total		8,021	7,203	89.8%	49.8	6.6	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	670	493	73.6%	143.2	60.4	F
	Right Turn	2	2	80.0%	117.2	55.2	F
	Subtotal	672	495	73.6%	143.1	60.5	F
SB	Left Turn	70	68	97.1%	11.6	1.7	B
	Through	306	306	100.1%	6.1	0.4	A
	Right Turn						
	Subtotal	376	374	99.6%	7.1	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	1	80.0%	41.9	95.4	E
	Through						
	Right Turn	247	153	62.0%	207.5	111.3	F
	Subtotal	248	154	62.1%	207.6	111.1	F
Total		1,296	1,023	79.0%	96.5	24.3	F

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	247	103.0%	5.4	0.3	A
	Through	45	53	117.3%	6.5	0.6	A
	Right Turn						
	Subtotal	285	300	105.3%	5.6	0.3	A
SB	Left Turn						
	Through	27	24	90.4%	8.1	0.7	A
	Right Turn	8	8	100.0%	3.8	2.3	A
	Subtotal	35	32	92.6%	7.2	0.9	A
EB	Left Turn	8	6	75.0%	4.7	1.5	A
	Through						
	Right Turn	64	64	100.6%	3.4	0.3	A
	Subtotal	72	70	97.8%	3.5	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	403	102.8%	5.4	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	98	84	85.7%	70.9	29.6	E
	Through	632	523	82.7%	56.3	22.0	E
	Right Turn	270	207	76.7%	55.0	23.5	D
	Subtotal	1,000	814	81.4%	57.4	23.1	E
SB	Left Turn	36	33	91.1%	46.4	13.1	D
	Through	346	325	93.9%	25.9	4.7	C
	Right Turn	15	13	85.3%	20.3	12.7	C
	Subtotal	397	370	93.3%	27.4	4.7	C
EB	Left Turn	1	1	80.0%	13.2	28.6	B
	Through	55	50	90.9%	41.9	7.0	D
	Right Turn	18	19	104.4%	20.5	6.2	C
	Subtotal	74	70	94.1%	36.2	5.9	D
WB	Left Turn	344	290	84.3%	97.6	26.6	F
	Through	58	56	96.6%	19.5	6.4	B
	Right Turn	19	20	103.2%	22.1	16.4	C
	Subtotal	421	366	86.8%	81.9	22.9	F
Total		1,892	1,620	85.6%	55.2	14.4	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	44	101.4%	44.7	7.0	D
	Through	87	89	102.5%	34.6	5.4	C
	Right Turn	22	20	92.7%	40.5	10.9	D
	Subtotal	152	153	100.8%	38.6	3.1	D
SB	Left Turn	5	5	104.0%	32.1	29.0	C
	Through	109	98	90.3%	39.4	4.5	D
	Right Turn	7	8	120.0%	14.9	13.3	B
	Subtotal	121	112	92.6%	37.7	4.2	D
EB	Left Turn						
	Through	241	199	82.5%	34.7	4.6	C
	Right Turn	61	46	75.4%	22.6	5.0	C
	Subtotal	302	245	81.1%	32.5	3.5	C
SW	Left Turn	34	34	101.2%	6.9	4.1	A
	Through	1,619	1,536	94.8%	12.0	1.9	B
	Right Turn	328	316	96.3%	19.5	3.2	B
	Subtotal	1,981	1,886	95.2%	13.2	2.0	B
Total		2,556	2,396	93.7%	17.9	1.5	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	54	100.0%	12.8	2.2	B
	Through	3,401	3,374	99.2%	11.3	0.8	B
	Right Turn	2	2	100.0%	2.5	3.6	A
	Subtotal	3,457	3,430	99.2%	11.3	0.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	264	272	103.0%	23.8	3.1	C
	Through	3	3	106.7%	16.7	18.6	B
	Right Turn						
	Subtotal	267	275	103.1%	23.9	3.1	C
WB	Left Turn						
	Through	10	11	112.0%	12.9	9.3	B
	Right Turn	3	3	93.3%	2.2	4.9	A
	Subtotal	13	14	107.7%	11.0	6.9	B
Total		3,737	3,720	99.5%	12.3	0.9	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	27	87.7%	15.3	7.1	B
	Through	13	10	76.9%	14.3	6.9	B
	Right Turn						
	Subtotal	44	37	84.5%	14.3	4.7	B
SB	Left Turn						
	Through	158	141	89.4%	19.1	2.4	B
	Right Turn	65	61	94.2%	11.8	1.3	B
	Subtotal	223	202	90.8%	16.9	1.7	B
EB	Left Turn						
	Through	8	6	70.0%	27.8	21.9	C
	Right Turn						
	Subtotal	8	6	70.0%	27.8	21.9	C
WB	Left Turn	79	66	83.0%	7.2	1.9	A
	Through	1,943	1,826	94.0%	10.2	2.2	B
	Right Turn	7	9	125.7%	6.1	2.1	A
	Subtotal	2,029	1,900	93.7%	10.1	2.1	B
Total		2,304	2,146	93.1%	10.9	1.9	B

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	368	351	95.4%	2.3	1.9	A
	Right Turn	23	27	118.3%	0.8	0.2	A
	Subtotal	391	378	96.8%	2.2	1.9	A
SB	Left Turn	93	86	92.0%	14.7	7.0	B
	Through	214	210	98.1%	7.5	0.8	A
	Right Turn						
	Subtotal	307	296	96.3%	9.6	2.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	58	60	103.4%	24.1	17.6	C
	Through						
	Right Turn	304	289	95.1%	21.2	23.3	C
	Subtotal	362	349	96.5%	21.6	22.2	C
Total		1,060	1,023	96.5%	11.0	9.0	B

Intersection 43 **5th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	287	255	88.9%	1.4	0.4	A
	Through						
	Right Turn						
	Subtotal	287	255	88.9%	1.4	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	558	546	97.9%	7.9	1.6	A
	Subtotal	558	546	97.9%	7.9	1.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		845	802	94.9%	5.8	1.2	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	284	286	100.6%	11.4	1.6	B
	Through						
	Right Turn	100	98	98.0%	2.8	0.5	A
	Subtotal	384	384	99.9%	9.2	1.3	A
EB	Left Turn	24	30	125.0%	13.6	3.3	B
	Through	358	341	95.2%	8.0	1.3	A
	Right Turn						
	Subtotal	382	371	97.1%	8.5	1.1	A
WB	Left Turn						
	Through	319	280	87.6%	8.2	1.3	A
	Right Turn	199	173	86.8%	4.0	1.1	A
	Subtotal	518	452	87.3%	6.7	0.9	A
Total		1,284	1,207	94.0%	8.0	0.9	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	9	92.0%	12.9	12.4	B
	Through						
	Right Turn	10	12	120.0%	3.2	1.4	A
	Subtotal	20	21	106.0%	6.9	4.0	A
EB	Left Turn	10	12	116.0%	32.2	21.8	C
	Through	632	550	87.0%	33.1	18.1	C
	Right Turn						
	Subtotal	642	562	87.5%	33.0	18.0	C
WB	Left Turn						
	Through	508	446	87.7%	4.1	0.7	A
	Right Turn	10	10	104.0%	2.4	1.7	A
	Subtotal	518	456	88.0%	4.1	0.6	A
Total		1,180	1,039	88.0%	19.5	9.3	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	97	101.3%	21.0	4.6	C
	Through	127	121	95.4%	12.1	3.3	B
	Right Turn	5	2	48.0%	4.7	8.8	A
	Subtotal	228	221	96.8%	16.0	3.1	B
SB	Left Turn	339	323	95.2%	33.5	9.7	C
	Through	219	216	98.6%	12.9	1.3	B
	Right Turn						
	Subtotal	558	539	96.6%	25.4	5.8	C
EB	Left Turn						
	Through	507	387	76.4%	103.2	47.4	F
	Right Turn	135	108	79.7%	96.6	49.2	F
	Subtotal	642	495	77.1%	101.6	47.6	F
WB	Left Turn	29	25	86.9%	23.9	16.9	C
	Through	422	371	87.9%	7.2	0.5	A
	Right Turn	160	138	86.3%	5.2	1.3	A
	Subtotal	611	534	87.4%	7.5	0.6	A
Total		2,039	1,788	87.7%	39.4	13.4	D

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	8.0	10.1	A
	Through						
	Right Turn	205	194	94.4%	10.6	1.5	B
	Subtotal	210	198	94.3%	10.5	1.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	846	673	79.5%	61.0	8.8	E
	Right Turn	5	4	80.0%	44.9	31.0	D
	Subtotal	851	677	79.5%	61.0	8.7	E
WB	Left Turn	92	74	80.9%	29.6	4.3	C
	Through	606	532	87.9%	8.4	0.8	A
	Right Turn						
	Subtotal	698	607	86.9%	10.9	0.9	B
Total		1,759	1,482	84.2%	33.7	3.7	C

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	70	107.1%	27.1	6.7	C
	Through	221	224	101.4%	14.0	3.2	B
	Right Turn						
	Subtotal	286	294	102.7%	17.2	3.6	B
SB	Left Turn						
	Through	75	67	89.6%	24.0	5.3	C
	Right Turn	633	540	85.4%	14.0	1.7	B
	Subtotal	708	608	85.8%	15.2	1.9	B
EB	Left Turn	779	629	80.7%	18.1	3.9	B
	Through						
	Right Turn	272	236	86.6%	5.9	1.2	A
	Subtotal	1,051	864	82.2%	14.8	3.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,045	1,766	86.3%	15.3	1.5	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	228	226	99.1%	0.1	0.1	A
	Right Turn						
	Subtotal	228	226	99.1%	0.1	0.1	A
SB	Left Turn						
	Through	383	352	91.8%	1.7	0.4	A
	Right Turn						
	Subtotal	383	352	91.8%	1.7	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		611	578	94.5%	1.1	0.2	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	199	94.9%	0.2	0.1	A
	Subtotal	210	199	94.9%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	79	81.2%	1.0	0.2	A
	Subtotal	97	79	81.2%	1.0	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	278	90.6%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	228	228	99.8%	0.1	0.0	A
	Subtotal	228	228	99.8%	0.1	0.0	A
SB	Left Turn Through Right Turn	383	351	91.6%	0.4	0.1	A
	Subtotal	383	351	91.6%	0.4	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		611	578	94.7%	0.3	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	199	94.7%	0.1	0.1	A
	Subtotal	210	199	94.7%	0.1	0.1	A
SB	Left Turn Through Right Turn	97	79	81.6%	0.2	0.1	A
	Subtotal	97	79	81.6%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	278	90.6%	0.2	0.1	A

Baseline Plus Phase 1 Medical Center 7th St / Railyards Boulevard Mitigation Only

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	839	839	100.0%	78.7	6.3	E
	Through	12	6	50.0%	84.4	36.8	F
	Right Turn	495	478	96.6%	59.0	7.4	E
	Subtotal	1,346	1,324	98.3%	71.7	6.8	E
EB	Left Turn						
	Through	297	312	105.1%	21.8	2.0	C
	Right Turn	46	44	96.5%	4.7	5.5	A
	Subtotal	343	356	103.9%	19.5	1.9	B
WB	Left Turn	254	237	93.4%	8.7	2.2	A
	Through	144	149	103.6%	6.7	1.1	A
	Right Turn						
	Subtotal	398	386	97.1%	8.0	1.5	A
Total		2,087	2,066	99.0%	50.8	4.5	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	60	118.4%	24.8	6.2	C
	Through	8	6	75.0%	12.0	9.5	B
	Right Turn	821	800	97.4%	31.9	10.0	C
	Subtotal	880	866	98.5%	31.3	9.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	135	98.7%	20.8	9.3	C
	Through	999	988	98.9%	5.4	1.2	A
	Right Turn						
	Subtotal	1,136	1,123	98.8%	7.1	0.9	A
WB	Left Turn						
	Through	347	324	93.5%	16.4	2.6	B
	Right Turn	421	385	91.5%	3.2	0.4	A
	Subtotal	768	710	92.4%	9.2	1.3	A
Total		2,784	2,699	96.9%	15.5	3.5	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	221	226	102.1%	29.7	2.5	C
	Through	11	13	116.4%	29.6	20.0	C
	Right Turn	9	7	75.6%	6.8	5.9	A
	Subtotal	241	245	101.7%	29.1	2.9	C
SB	Left Turn	36	36	98.9%	34.3	7.4	C
	Through	3	2	80.0%	25.4	25.3	C
	Right Turn	68	70	102.4%	5.8	1.2	A
	Subtotal	107	108	100.6%	16.0	3.1	B
EB	Left Turn	126	118	93.7%	35.2	5.8	D
	Through	1,124	1,103	98.1%	16.2	2.2	B
	Right Turn	570	581	102.0%	3.5	0.2	A
	Subtotal	1,820	1,802	99.0%	13.3	1.8	B
WB	Left Turn	34	26	76.5%	37.6	13.7	D
	Through	479	424	88.5%	18.2	3.3	B
	Right Turn	10	8	80.0%	13.4	7.6	B
	Subtotal	523	458	87.6%	19.2	2.9	B
Total		2,691	2,613	97.1%	15.9	1.5	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	16	76.2%	39.7	12.9	D
	Through						
	Right Turn	8	8	100.0%	7.7	4.1	A
	Subtotal	29	24	82.8%	28.1	11.9	C
SB	Left Turn	15	13	85.3%	37.6	11.9	D
	Through						
	Right Turn	17	16	94.1%	3.7	2.0	A
	Subtotal	32	29	90.0%	21.4	9.7	C
EB	Left Turn	57	50	87.7%	38.6	6.8	D
	Through	1,018	980	96.3%	4.6	1.3	A
	Right Turn	94	96	102.1%	3.9	1.0	A
	Subtotal	1,169	1,126	96.4%	6.1	1.1	A
WB	Left Turn	21	14	64.8%	45.2	14.9	D
	Through	485	416	85.7%	6.5	2.6	A
	Right Turn	34	36	104.7%	3.9	1.6	A
	Subtotal	540	465	86.1%	7.4	2.4	A
Total		1,770	1,644	92.9%	7.0	1.3	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	36	88.8%	38.4	6.5	D
	Through	3	3	106.7%	22.5	28.0	C
	Right Turn	10	13	132.0%	7.9	2.8	A
	Subtotal	54	53	97.8%	30.1	7.0	C
SB	Left Turn	5	3	64.0%	29.8	30.6	C
	Through	10	8	80.0%	39.7	18.6	D
	Right Turn	7	6	85.7%	4.7	5.8	A
	Subtotal	22	17	78.2%	31.2	10.6	C
EB	Left Turn	56	46	81.4%	34.7	9.4	C
	Through	980	940	95.9%	6.6	2.1	A
	Right Turn	5	4	88.0%	5.6	7.6	A
	Subtotal	1,041	990	95.1%	7.9	2.6	A
WB	Left Turn	24	20	81.7%	44.3	9.9	D
	Through	492	419	85.2%	5.5	1.6	A
	Right Turn	26	23	87.7%	4.9	2.8	A
	Subtotal	542	462	85.2%	7.1	1.7	A
Total		1,659	1,521	91.7%	8.7	2.0	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	23.3	22.2	C
	Through	5	3	64.0%	20.5	22.3	C
	Right Turn	5	5	104.0%	5.5	5.3	A
	Subtotal	15	12	82.7%	20.0	13.4	B
SB	Left Turn	16	16	102.5%	27.4	13.9	C
	Through	5	4	80.0%	28.5	24.4	C
	Right Turn	20	17	86.0%	5.4	2.4	A
	Subtotal	41	38	91.7%	20.5	7.6	C
EB	Left Turn	54	49	90.4%	38.4	9.1	D
	Through	933	882	94.6%	4.4	1.5	A
	Right Turn	8	8	100.0%	4.7	6.4	A
	Subtotal	995	939	94.4%	6.1	1.4	A
WB	Left Turn	9	8	84.4%	29.1	23.4	C
	Through	517	456	88.2%	8.4	2.1	A
	Right Turn	17	16	94.1%	6.0	4.7	A
	Subtotal	543	480	88.3%	8.9	2.0	A
Total		1,594	1,469	92.1%	7.6	1.4	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	26	77.6%	36.1	15.2	D
	Through	82	77	93.7%	51.0	15.8	D
	Right Turn	299	268	89.5%	39.4	11.0	D
	Subtotal	415	371	89.3%	41.1	10.0	D
SB	Left Turn	7	9	125.7%	63.7	26.3	E
	Through	16	18	110.0%	47.7	22.1	D
	Right Turn	21	18	85.7%	26.3	13.0	C
	Subtotal	44	44	100.9%	39.9	9.7	D
EB	Left Turn	124	104	84.2%	56.0	7.8	E
	Through	734	707	96.3%	37.3	5.2	D
	Right Turn	96	86	90.0%	32.4	6.0	C
	Subtotal	954	898	94.1%	39.0	4.9	D
WB	Left Turn	433	333	76.9%	126.2	42.1	F
	Through	490	428	87.4%	48.1	17.6	D
	Right Turn	14	16	111.4%	36.7	18.9	D
	Subtotal	937	777	82.9%	81.8	28.4	F
Total		2,350	2,090	88.9%	55.1	11.5	E

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	14	113.3%	31.9	11.1	C
	Through	32	32	98.8%	41.6	8.8	D
	Right Turn	12	10	86.7%	7.1	3.7	A
	Subtotal	56	56	99.3%	33.3	4.5	C
SB	Left Turn	7	3	45.7%	20.3	23.1	C
	Through	7	5	74.3%	24.7	26.0	C
	Right Turn	32	32	101.3%	7.0	2.2	A
	Subtotal	46	41	88.7%	12.2	4.2	B
EB	Left Turn	137	125	91.1%	35.1	5.3	D
	Through	864	812	93.9%	8.4	2.3	A
	Right Turn	39	27	68.7%	6.7	2.7	A
	Subtotal	1,040	963	92.6%	11.8	2.2	B
WB	Left Turn	15	10	66.7%	25.5	19.6	C
	Through	1,000	912	91.2%	11.1	3.3	B
	Right Turn	51	48	93.3%	8.6	3.3	A
	Subtotal	1,066	969	90.9%	11.3	3.2	B
Total		2,208	2,029	91.9%	12.2	1.8	B

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline Plus Phase 1 Medical Center (Mitigated)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	17	78.2%	28.7	13.2	C
	Through	7	9	131.4%	34.6	12.9	C
	Right Turn	27	34	127.4%	11.0	6.0	B
	Subtotal	56	61	108.6%	20.2	7.9	C
SB	Left Turn	40	41	103.0%	36.1	6.0	D
	Through	11	15	134.5%	28.9	6.1	C
	Right Turn	21	16	76.2%	13.5	8.1	B
	Subtotal	72	72	100.0%	29.7	3.7	C
EB	Left Turn	26	22	84.6%	39.9	13.2	D
	Through	829	770	92.8%	12.3	2.1	B
	Right Turn	28	27	97.1%	4.2	2.8	A
	Subtotal	883	819	92.7%	12.8	2.1	B
WB	Left Turn	27	30	112.6%	40.6	10.8	D
	Through	1,023	941	92.0%	11.0	3.0	B
	Right Turn	27	28	103.7%	8.7	3.0	A
	Subtotal	1,077	999	92.8%	11.8	3.2	B
Total		2,088	1,951	93.4%	13.1	2.4	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	65	100.3%	65.5	11.3	E
	Through	1,035	1,003	96.9%	14.4	1.8	B
	Right Turn	2	1	40.0%	0.3	0.7	A
	Subtotal	1,102	1,069	97.0%	17.5	2.3	B
SB	Left Turn						
	Through	2,455	2,186	89.0%	60.7	6.4	E
	Right Turn	1,076	986	91.7%	18.7	4.9	B
	Subtotal	3,531	3,172	89.8%	47.7	6.4	D
EB	Left Turn	832	619	74.4%	114.5	26.7	F
	Through						
	Right Turn	20	21	104.0%	37.5	17.7	D
	Subtotal	852	640	75.1%	112.0	26.5	F
WB	Left Turn						
	Through	1	1	120.0%	24.6	42.0	C
	Right Turn	2	4	180.0%	3.7	4.0	A
	Subtotal	3	5	160.0%	21.5	32.8	C
Total		5,488	4,886	89.0%	49.5	5.4	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	131	135	102.9%	0.7	0.4	A
	Right Turn	3	3	106.7%	0.6	0.3	A
	Subtotal	134	138	103.0%	0.7	0.4	A
SB	Left Turn	245	236	96.3%	8.1	0.3	A
	Through	330	348	105.3%	5.9	0.2	A
	Right Turn						
	Subtotal	575	584	101.5%	6.8	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	3	93.3%	5.7	8.3	A
	Through						
	Right Turn	49	51	103.7%	3.0	0.4	A
	Subtotal	52	54	103.1%	3.6	1.0	A
Total		761	775	101.9%	5.5	0.2	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	49	111.8%	4.6	0.3	A
	Through	49	49	99.6%	5.6	0.6	A
	Right Turn						
	Subtotal	93	98	105.4%	5.1	0.4	A
SB	Left Turn						
	Through	31	28	90.3%	7.3	0.8	A
	Right Turn	8	5	65.0%	3.7	2.0	A
	Subtotal	39	33	85.1%	6.8	0.5	A
EB	Left Turn	5	4	72.0%	3.5	3.0	A
	Through						
	Right Turn	243	236	97.0%	4.4	0.5	A
	Subtotal	248	239	96.5%	4.4	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	370	97.5%	4.8	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	22	90.0%	33.0	7.5	C
	Through	376	361	96.1%	37.8	4.7	D
	Right Turn	26	23	89.2%	35.4	8.9	D
	Subtotal	426	406	95.3%	37.5	4.6	D
SB	Left Turn	11	9	83.6%	68.0	35.0	E
	Through	529	440	83.2%	28.7	6.9	C
	Right Turn	7	6	91.4%	20.5	18.0	C
	Subtotal	547	456	83.3%	29.4	6.7	C
EB	Left Turn	10	12	124.0%	34.1	20.1	C
	Through	46	46	100.0%	40.8	10.5	D
	Right Turn	73	72	98.1%	22.5	5.7	C
	Subtotal	129	130	100.8%	30.5	5.4	C
WB	Left Turn	261	216	82.6%	72.2	28.1	E
	Through	68	59	86.5%	75.0	24.5	E
	Right Turn	27	24	87.4%	31.4	14.1	C
	Subtotal	356	298	83.7%	69.3	24.7	E
Total		1,458	1,290	88.4%	41.3	7.2	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	29	92.9%	33.9	8.1	C
	Through	101	90	89.1%	34.5	4.1	C
	Right Turn	22	24	107.3%	39.5	15.1	D
	Subtotal	154	142	92.5%	34.8	4.7	C
SB	Left Turn	2	2	100.0%	24.4	35.2	C
	Through	17	20	115.3%	48.6	9.0	D
	Right Turn	9	14	155.6%	22.4	12.5	C
	Subtotal	28	36	127.1%	39.9	6.3	D
EB	Left Turn						
	Through	61	58	95.7%	36.4	7.1	D
	Right Turn	22	25	114.5%	15.2	8.9	B
	Subtotal	83	84	100.7%	29.7	4.8	C
SW	Left Turn	18	12	66.7%	6.5	6.4	A
	Through	2,289	1,991	87.0%	13.2	3.1	B
	Right Turn	249	248	99.6%	18.9	4.6	B
	Subtotal	2,556	2,251	88.1%	13.8	3.2	B
Total		2,821	2,513	89.1%	15.9	2.8	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	124	97.3%	9.5	2.0	A
	Through	1,075	1,044	97.1%	7.6	0.9	A
	Right Turn	6	8	133.3%	1.8	1.6	A
	Subtotal	1,208	1,176	97.3%	7.8	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	40	86.0%	18.7	4.6	B
	Through	6	6	106.7%	7.8	7.6	A
	Right Turn						
	Subtotal	53	47	88.3%	17.7	4.5	B
WB	Left Turn						
	Through	6	2	40.0%	2.1	3.3	A
	Right Turn	2	4	200.0%	1.7	1.8	A
	Subtotal	8	6	80.0%	3.1	2.4	A
Total		1,269	1,229	96.8%	8.1	1.0	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	13	82.5%	13.9	12.0	B
	Through	13	18	141.5%	11.5	8.2	B
	Right Turn						
	Subtotal	29	32	109.0%	13.2	7.9	B
SB	Left Turn						
	Through	25	15	60.8%	11.9	7.5	B
	Right Turn	33	30	89.7%	8.2	4.7	A
	Subtotal	58	45	77.2%	9.6	4.4	A
EB	Left Turn						
	Through	8	10	120.0%	18.9	12.4	B
	Right Turn						
	Subtotal	8	10	120.0%	18.9	12.4	B
WB	Left Turn	39	36	92.3%	6.9	3.0	A
	Through	2,428	2,141	88.2%	9.3	2.3	A
	Right Turn	8	8	95.0%	5.3	2.3	A
	Subtotal	2,475	2,185	88.3%	9.2	2.3	A
Total		2,570	2,271	88.4%	9.3	2.3	A

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	121	122	100.8%	1.5	0.7	A
	Right Turn	3	14	466.7%	1.3	0.9	A
	Subtotal	124	136	109.7%	1.4	0.6	A
SB	Left Turn	81	71	87.4%	4.6	1.1	A
	Through	252	278	110.2%	2.1	0.5	A
	Right Turn						
	Subtotal	333	348	104.6%	2.6	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	6	4	73.3%	6.8	3.5	A
	Through						
	Right Turn	17	20	117.6%	4.9	0.8	A
	Subtotal	23	24	106.1%	5.6	1.0	A
Total		480	509	106.0%	2.4	0.4	A

Intersection 43 **5th St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	116	114	98.3%	1.0	0.2	A
	Through						
	Right Turn						
	Subtotal	116	114	98.3%	1.0	0.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	38	35	91.6%	3.9	1.7	A
	Subtotal	38	35	91.6%	3.9	1.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		154	149	96.6%	1.6	0.3	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	171	106.3%	8.9	1.7	A
	Right Turn	400	408	102.0%	5.6	0.9	A
	Subtotal	561	579	103.2%	6.6	1.1	A
SB	Left Turn	211	209	99.0%	29.7	8.5	C
	Through	340	348	102.2%	4.4	0.8	A
	Right Turn						
	Subtotal	551	556	101.0%	13.9	3.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	201	173	86.0%	26.3	2.4	C
	Through						
	Right Turn	10	6	64.0%	14.0	5.7	B
	Subtotal	211	179	84.9%	25.9	2.4	C
Total		1,323	1,315	99.4%	12.3	1.8	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	65	34	52.9%	7.6	2.8	A
	Through						
	Right Turn	53	45	84.5%	2.4	0.7	A
	Subtotal	118	79	67.1%	4.8	1.4	A
EB	Left Turn	64	75	117.5%	6.9	1.1	A
	Through	547	539	98.5%	5.4	0.8	A
	Right Turn						
	Subtotal	611	614	100.5%	5.6	0.7	A
WB	Left Turn						
	Through	158	135	85.3%	9.3	1.4	A
	Right Turn	134	34	25.7%	7.9	1.3	A
	Subtotal	292	169	57.9%	9.0	1.3	A
Total		1,021	862	84.5%	6.2	0.5	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	60	112	187.3%	7.8	1.5	A
	Through						
	Right Turn	12	13	110.0%	2.9	1.0	A
	Subtotal	72	126	174.4%	7.3	1.4	A
EB	Left Turn	54	53	98.5%	18.3	2.1	B
	Through	558	519	93.0%	13.2	1.6	B
	Right Turn						
	Subtotal	612	572	93.5%	13.7	1.6	B
WB	Left Turn						
	Through	280	160	57.0%	5.0	1.0	A
	Right Turn	220	305	138.7%	5.0	0.8	A
	Subtotal	500	465	93.0%	5.0	0.7	A
Total		1,184	1,163	98.2%	9.6	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	5	5	104.0%	7.6	5.8	A
	Through						
	Right Turn	5	8	168.0%	3.3	2.5	A
	Subtotal	10	14	136.0%	5.7	3.4	A
EB	Left Turn	5	6	112.0%	20.3	5.2	C
	Through	613	624	101.8%	19.7	1.8	B
	Right Turn						
	Subtotal	618	630	101.9%	19.8	1.8	B
WB	Left Turn						
	Through	495	467	94.3%	4.0	0.3	A
	Right Turn	5	6	128.0%	2.0	1.8	A
	Subtotal	500	473	94.6%	3.9	0.3	A
Total		1,128	1,116	99.0%	12.9	1.3	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	133	159	119.4%	25.2	3.7	C
	Through	44	54	122.7%	21.7	4.1	C
	Right Turn	7	7	102.9%	6.1	8.3	A
	Subtotal	184	220	119.6%	23.8	2.3	C
SB	Left Turn	19	20	107.4%	28.0	7.1	C
	Through	19	14	73.7%	19.8	11.0	B
	Right Turn						
	Subtotal	38	34	90.5%	25.6	6.0	C
EB	Left Turn						
	Through	519	530	102.1%	34.1	4.4	C
	Right Turn	99	98	98.6%	29.4	4.4	C
	Subtotal	618	628	101.6%	33.3	4.4	C
WB	Left Turn	10	9	88.0%	11.8	6.8	B
	Through	367	322	87.8%	2.6	0.7	A
	Right Turn	72	61	85.0%	1.5	0.4	A
	Subtotal	449	392	87.4%	2.6	0.5	A
Total		1,289	1,274	98.9%	22.1	2.7	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	96.0%	13.7	19.3	B
	Through						
	Right Turn	40	33	82.0%	10.3	5.8	B
	Subtotal	45	38	83.6%	11.2	4.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	535	549	102.6%	18.2	17.0	B
	Right Turn	10	9	92.0%	11.6	17.5	B
	Subtotal	545	558	102.4%	18.1	17.0	B
WB	Left Turn	101	84	83.2%	40.0	5.6	D
	Through	444	387	87.2%	2.9	0.5	A
	Right Turn						
	Subtotal	545	471	86.5%	9.5	1.5	A
Total		1,135	1,067	94.0%	14.5	10.1	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	83	110.9%	45.7	12.1	D
	Through	29	32	109.0%	5.6	1.8	A
	Right Turn						
	Subtotal	104	115	110.4%	35.1	9.5	D
SB	Left Turn						
	Through	393	309	78.6%	31.2	5.5	C
	Right Turn	470	390	83.0%	25.2	4.4	C
	Subtotal	863	699	81.0%	27.9	4.7	C
EB	Left Turn	397	388	97.8%	25.0	7.1	C
	Through						
	Right Turn	178	188	105.6%	8.0	3.2	A
	Subtotal	575	576	100.2%	19.6	6.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,542	1,390	90.1%	25.2	3.2	C

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	184	216	117.6%	0.2	0.1	A
	Right Turn						
	Subtotal	184	216	117.6%	0.2	0.1	A
SB	Left Turn						
	Through	128	121	94.4%	0.6	0.1	A
	Right Turn						
	Subtotal	128	121	94.4%	0.6	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		312	337	108.1%	0.3	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	37	81.8%	0.0	0.0	A
	Subtotal	45	37	81.8%	0.0	0.0	A
SB	Left Turn Through Right Turn	111	94	84.3%	0.9	0.2	A
	Subtotal	111	94	84.3%	0.9	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	130	83.6%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	184	217	118.0%	0.5	0.2	A
	Subtotal	184	217	118.0%	0.5	0.2	A
SB	Left Turn Through Right Turn	128	119	93.1%	0.0	0.0	A
	Subtotal	128	119	93.1%	0.0	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		312	336	107.8%	0.4	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	37	82.7%	0.0	0.0	A
	Subtotal	45	37	82.7%	0.0	0.0	A
SB	Left Turn Through Right Turn	111	94	85.0%	0.3	0.1	A
	Subtotal	111	94	85.0%	0.3	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	132	84.4%	0.2	0.1	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	442	438	99.1%	27.8	2.4	C
	Through	69	62	89.9%	27.6	4.3	C
	Right Turn	314	309	98.3%	8.4	0.9	A
	Subtotal	825	809	98.0%	20.4	1.5	C
EB	Left Turn						
	Through	592	547	92.4%	83.5	37.1	F
	Right Turn	56	54	97.1%	6.5	3.3	A
	Subtotal	648	601	92.8%	76.5	33.5	E
WB	Left Turn	659	574	87.1%	15.8	5.3	B
	Through	393	294	74.8%	8.1	1.9	A
	Right Turn						
	Subtotal	1,052	868	82.5%	13.2	4.2	B
Total		2,525	2,278	90.2%	32.1	8.5	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	54	92.4%	29.3	7.6	C
	Through	10	13	132.0%	36.3	10.3	D
	Right Turn	431	448	103.9%	9.7	1.5	A
	Subtotal	499	515	103.2%	12.4	1.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	430	363	84.4%	57.3	8.4	E
	Through	604	597	98.8%	1.8	0.3	A
	Right Turn						
	Subtotal	1,034	960	92.8%	22.7	2.7	C
WB	Left Turn						
	Through	994	805	81.0%	18.1	1.4	B
	Right Turn	1,174	874	74.5%	5.5	0.3	A
	Subtotal	2,168	1,680	77.5%	11.6	0.8	B
Total		3,701	3,154	85.2%	15.1	0.8	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	643	518	80.6%	139.7	35.7	F
	Through	4	42	1040.0%	68.0	32.6	E
	Right Turn	9	13	142.2%	66.8	29.0	E
	Subtotal	656	573	87.3%	132.9	34.3	F
SB	Left Turn	34	37	108.2%	35.3	5.8	D
	Through	8	9	110.0%	28.0	18.3	C
	Right Turn	166	170	102.4%	15.4	3.3	B
	Subtotal	208	216	103.7%	19.8	1.9	B
EB	Left Turn	80	77	96.5%	30.2	4.3	C
	Through	688	720	104.7%	16.6	2.5	B
	Right Turn	267	271	101.6%	2.5	0.2	A
	Subtotal	1,035	1,068	103.2%	14.0	1.9	B
WB	Left Turn	18	18	97.8%	31.6	9.5	C
	Through	1,359	1,016	74.8%	63.3	9.5	E
	Right Turn	9	8	84.4%	68.5	39.7	E
	Subtotal	1,386	1,042	75.2%	62.9	9.3	E
Total		3,285	2,898	88.2%	55.1	6.9	E

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	80	89.4%	57.5	36.1	E
	Through						
	Right Turn	15	13	88.0%	6.7	3.1	A
	Subtotal	104	93	89.2%	51.3	35.3	D
SB	Left Turn	39	37	95.4%	28.7	7.7	C
	Through						
	Right Turn	17	18	103.5%	25.8	26.8	C
	Subtotal	56	55	97.9%	27.9	7.2	C
EB	Left Turn	13	15	116.9%	47.1	11.7	D
	Through	706	710	100.6%	3.5	0.8	A
	Right Turn	12	14	113.3%	3.3	1.5	A
	Subtotal	731	739	101.1%	4.4	0.7	A
WB	Left Turn	2	2	120.0%	9.1	11.6	A
	Through	1,280	975	76.2%	51.9	10.8	D
	Right Turn	10	7	68.0%	59.0	39.2	E
	Subtotal	1,292	984	76.2%	52.0	10.9	D
Total		2,183	1,871	85.7%	32.2	6.2	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	27	111.7%	41.0	12.0	D
	Through	5	8	160.0%	34.4	29.8	C
	Right Turn	24	31	130.0%	9.1	2.7	A
	Subtotal	53	66	124.5%	25.4	7.0	C
SB	Left Turn	24	21	86.7%	27.8	8.4	C
	Through	19	16	84.2%	30.2	13.7	C
	Right Turn	49	50	102.0%	19.2	7.8	B
	Subtotal	92	87	94.3%	23.9	6.4	C
EB	Left Turn	8	10	120.0%	43.3	19.9	D
	Through	747	748	100.1%	6.7	1.6	A
	Right Turn	5	5	96.0%	4.7	7.6	A
	Subtotal	760	762	100.3%	7.2	1.7	A
WB	Left Turn	11	8	72.7%	65.6	24.7	E
	Through	1,219	992	81.4%	46.4	22.9	D
	Right Turn	10	13	128.0%	62.1	59.6	E
	Subtotal	1,240	1,013	81.7%	46.7	22.9	D
Total		2,145	1,928	89.9%	28.9	11.6	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	80.0%	28.2	48.0	C
	Through	5	6	112.0%	18.7	18.0	B
	Right Turn	8	5	65.0%	2.0	1.8	A
	Subtotal	17	14	82.4%	17.6	10.5	B
SB	Left Turn	8	6	75.0%	19.9	16.1	B
	Through	5	3	56.0%	19.7	19.8	B
	Right Turn	70	64	91.4%	20.0	7.5	C
	Subtotal	83	73	87.7%	21.2	6.8	C
EB	Left Turn	16	14	87.5%	45.6	12.1	D
	Through	774	780	100.8%	3.5	1.5	A
	Right Turn	5	4	80.0%	1.3	1.9	A
	Subtotal	795	798	100.4%	4.2	1.5	A
WB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through	1,166	1,073	92.0%	21.8	12.3	C
	Right Turn	3	4	120.0%	13.5	14.3	B
	Subtotal	1,170	1,076	92.0%	21.8	12.3	C
Total		2,065	1,962	95.0%	14.5	6.7	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	66	61.5%	43.3	8.7	D
	Through	27	20	72.6%	41.5	11.7	D
	Right Turn	409	279	68.3%	25.8	5.1	C
	Subtotal	544	365	67.1%	30.0	4.9	C
SB	Left Turn	53	56	106.4%	44.8	9.6	D
	Through	91	95	104.6%	36.1	7.6	D
	Right Turn	76	77	101.1%	34.8	5.6	C
	Subtotal	220	228	103.8%	37.9	6.2	D
EB	Left Turn	4	4	110.0%	32.8	32.8	C
	Through	699	702	100.4%	28.9	4.0	C
	Right Turn	87	86	98.4%	24.6	7.0	C
	Subtotal	790	792	100.3%	28.5	4.0	C
WB	Left Turn	191	177	92.6%	49.2	5.8	D
	Through	988	1,031	104.4%	21.2	4.1	C
	Right Turn	14	14	100.0%	15.7	8.6	B
	Subtotal	1,193	1,222	102.4%	25.2	4.0	C
Total		2,747	2,608	94.9%	27.9	3.4	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	41	113.3%	39.3	7.7	D
	Through	3	2	66.7%	17.3	19.3	B
	Right Turn	60	62	104.0%	10.6	4.4	B
	Subtotal	99	105	106.3%	22.1	3.7	C
SB	Left Turn	84	76	90.0%	27.0	8.5	C
	Through	63	69	109.8%	28.3	5.6	C
	Right Turn	134	136	101.2%	10.9	2.4	B
	Subtotal	281	280	99.8%	19.7	2.5	B
EB	Left Turn	37	32	85.4%	36.0	5.5	D
	Through	1,080	963	89.2%	8.8	1.8	A
	Right Turn	44	42	96.4%	5.8	1.1	A
	Subtotal	1,161	1,037	89.3%	9.6	1.8	A
WB	Left Turn	7	8	114.3%	46.4	26.9	D
	Through	945	960	101.6%	8.0	1.4	A
	Right Turn	17	16	96.5%	5.6	4.9	A
	Subtotal	969	985	101.6%	8.3	1.3	A
Total		2,510	2,408	95.9%	10.8	1.1	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	22	97.4%	40.8	11.9	D
	Through	6	4	60.0%	33.8	25.4	C
	Right Turn	30	23	77.3%	19.1	13.4	B
	Subtotal	59	49	83.4%	29.4	10.4	C
SB	Left Turn	29	24	81.4%	31.8	7.1	C
	Through	10	6	56.0%	26.5	18.3	C
	Right Turn	27	33	121.5%	16.8	5.6	B
	Subtotal	66	62	93.9%	23.7	6.5	C
EB	Left Turn	14	11	77.1%	38.7	25.6	D
	Through	1,183	1,052	88.9%	8.5	1.7	A
	Right Turn	27	23	84.4%	6.4	2.9	A
	Subtotal	1,224	1,085	88.7%	8.8	1.7	A
WB	Left Turn	18	19	106.7%	34.7	12.9	C
	Through	919	928	101.0%	6.9	1.1	A
	Right Turn	6	5	86.7%	6.4	5.0	A
	Subtotal	943	953	101.0%	7.5	1.1	A
Total		2,292	2,149	93.8%	9.1	1.3	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	56	92.7%	84.6	19.1	F
	Through	3,902	3,496	89.6%	48.4	10.5	D
	Right Turn	9	6	62.2%	33.9	24.4	C
	Subtotal	3,971	3,558	89.6%	49.0	10.6	D
SB	Left Turn						
	Through	1,840	1,789	97.2%	28.6	9.3	C
	Right Turn	871	877	100.7%	9.5	3.6	A
	Subtotal	2,711	2,666	98.3%	22.4	7.3	C
EB	Left Turn	970	766	79.0%	58.5	17.8	E
	Through						
	Right Turn	117	96	81.7%	12.9	7.7	B
	Subtotal	1,087	862	79.3%	53.5	17.1	D
WB	Left Turn						
	Through	5	2	40.0%	90.7	137.5	F
	Right Turn	7	7	97.1%	37.8	49.3	D
	Subtotal	12	9	73.3%	45.3	45.2	D
Total		7,781	7,094	91.2%	39.5	6.7	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	445	414	93.0%	55.8	28.8	F
	Right Turn	2	3	160.0%	36.6	24.5	E
	Subtotal	447	417	93.3%	55.6	28.6	F
SB	Left Turn	70	74	106.3%	10.1	1.6	B
	Through	238	248	104.0%	5.2	0.5	A
	Right Turn						
	Subtotal	308	322	104.5%	6.3	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	40.0%	18.2	57.6	C
	Through						
	Right Turn	247	212	85.8%	63.5	38.7	F
	Subtotal	248	212	85.6%	63.7	38.9	F
Total		1,003	952	94.9%	40.1	17.6	E

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	244	101.5%	5.4	0.3	A
	Through	45	58	128.0%	6.6	0.4	A
	Right Turn						
	Subtotal	285	301	105.7%	5.7	0.2	A
SB	Left Turn						
	Through	27	23	85.9%	7.9	1.0	A
	Right Turn	8	6	75.0%	3.3	2.0	A
	Subtotal	35	29	83.4%	7.1	0.8	A
EB	Left Turn	8	8	105.0%	4.7	1.3	A
	Through						
	Right Turn	64	68	105.6%	3.4	0.6	A
	Subtotal	72	76	105.6%	3.5	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	406	103.7%	5.4	0.2	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	98	58	58.8%	131.1	24.4	F
	Through	522	340	65.1%	142.4	14.0	F
	Right Turn	242	147	60.7%	144.1	17.1	F
	Subtotal	862	544	63.2%	141.6	13.7	F
SB	Left Turn	36	35	97.8%	54.8	17.3	D
	Through	320	303	94.8%	38.4	6.3	D
	Right Turn	15	11	74.7%	29.8	16.7	C
	Subtotal	371	350	94.2%	39.6	5.8	D
EB	Left Turn	1	0	40.0%	1.3	4.0	A
	Through	55	59	106.9%	38.4	7.9	D
	Right Turn	18	19	104.4%	15.4	8.3	B
	Subtotal	74	78	105.4%	32.8	5.5	C
WB	Left Turn	272	259	95.1%	63.3	15.1	E
	Through	58	58	100.0%	62.8	12.8	E
	Right Turn	19	20	103.2%	27.7	11.0	C
	Subtotal	349	336	96.4%	61.0	13.2	E
Total		1,656	1,308	79.0%	87.0	5.3	F

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	43	100.5%	45.0	7.3	D
	Through	87	93	107.1%	34.5	4.3	C
	Right Turn	22	20	89.1%	36.7	15.1	D
	Subtotal	152	156	102.6%	38.1	3.1	D
SB	Left Turn	5	2	40.0%	19.3	23.7	B
	Through	109	105	96.1%	41.8	8.4	D
	Right Turn	7	5	68.6%	19.5	22.5	B
	Subtotal	121	112	92.2%	41.0	8.3	D
EB	Left Turn	5	4	72.0%	38.5	32.0	D
	Through	235	166	70.8%	34.1	6.5	C
	Right Turn	61	41	67.5%	18.3	5.4	B
	Subtotal	301	211	70.2%	31.1	5.1	C
SW	Left Turn	34	32	95.3%	7.7	4.1	A
	Through	1,619	1,542	95.2%	11.4	1.6	B
	Right Turn	256	262	102.2%	17.4	3.3	B
	Subtotal	1,909	1,836	96.2%	12.2	1.8	B
Total		2,483	2,314	93.2%	17.0	1.4	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	52	96.3%	13.8	2.7	B
	Through	3,401	3,404	100.1%	11.2	0.6	B
	Right Turn	2	1	40.0%	1.2	2.8	A
	Subtotal	3,457	3,456	100.0%	11.3	0.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	258	276	106.8%	22.8	2.6	C
	Through	3	3	93.3%	15.2	15.5	B
	Right Turn						
	Subtotal	261	278	106.7%	22.8	2.6	C
WB	Left Turn						
	Through	10	6	64.0%	15.4	13.9	B
	Right Turn	3	3	106.7%	2.6	4.6	A
	Subtotal	13	10	73.8%	14.8	13.9	B
Total		3,731	3,744	100.4%	12.1	0.6	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	34	109.7%	17.3	5.3	B
	Through	13	12	95.4%	10.4	7.8	B
	Right Turn						
	Subtotal	44	46	105.5%	15.3	4.2	B
SB	Left Turn						
	Through	158	145	91.9%	16.3	3.7	B
	Right Turn	65	60	92.3%	10.4	4.1	B
	Subtotal	223	205	92.0%	14.6	3.8	B
EB	Left Turn						
	Through	8	6	75.0%	20.2	17.4	C
	Right Turn						
	Subtotal	8	6	75.0%	20.2	17.4	C
WB	Left Turn	79	68	86.1%	6.7	1.4	A
	Through	1,871	1,767	94.4%	9.1	1.5	A
	Right Turn	7	8	120.0%	8.7	6.7	A
	Subtotal	1,957	1,843	94.2%	9.0	1.5	A
Total		2,232	2,101	94.1%	9.7	1.2	A

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	373	391	104.8%	3.8	1.1	A
	Right Turn	9	8	88.9%	1.1	0.6	A
	Subtotal	382	399	104.4%	3.7	1.1	A
SB	Left Turn	35	44	124.6%	14.8	4.2	B
	Through	204	198	96.9%	7.7	1.3	A
	Right Turn						
	Subtotal	239	241	100.9%	9.0	1.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	13	14	110.8%	7.6	1.9	A
	Through						
	Right Turn	74	74	100.5%	5.0	0.8	A
	Subtotal	87	89	102.1%	5.4	0.8	A
Total		708	729	102.9%	5.7	0.9	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	104	98	94.2%	1.0	0.3	A
	Through						
	Right Turn						
	Subtotal	104	98	94.2%	1.0	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	125	134	107.2%	4.0	0.6	A
	Subtotal	125	134	107.2%	4.0	0.6	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		229	232	101.3%	2.7	0.6	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	383	102.4%	17.0	2.4	B
	Right Turn	295	287	97.4%	13.3	2.6	B
	Subtotal	669	670	100.1%	15.4	2.4	B
SB	Left Turn	86	83	96.3%	38.8	22.3	D
	Through	409	409	100.0%	7.0	1.2	A
	Right Turn						
	Subtotal	495	492	99.4%	12.3	3.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	376	323	85.9%	32.8	4.3	C
	Through						
	Right Turn	55	51	93.1%	24.0	3.0	C
	Subtotal	431	374	86.8%	31.6	3.8	C
Total		1,595	1,536	96.3%	18.4	2.4	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	86	91	106.0%	7.4	1.7	A
	Through						
	Right Turn	88	87	99.1%	4.9	1.2	A
	Subtotal	174	178	102.5%	6.2	1.4	A
EB	Left Turn	100	101	100.8%	10.3	3.0	B
	Through	281	267	94.9%	5.4	0.9	A
	Right Turn						
	Subtotal	381	368	96.5%	6.8	1.3	A
WB	Left Turn						
	Through	343	296	86.2%	16.2	3.0	B
	Right Turn	32	39	122.5%	11.0	1.4	B
	Subtotal	375	335	89.3%	15.6	2.7	B
Total		930	881	94.7%	10.1	1.6	B

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	372	353	94.8%	16.2	11.3	B
	Through						
	Right Turn	59	56	94.9%	2.6	0.6	A
	Subtotal	431	409	94.8%	14.2	9.4	B
EB	Left Turn	14	12	88.6%	21.5	10.1	C
	Through	353	327	92.7%	17.9	5.8	B
	Right Turn						
	Subtotal	367	340	92.5%	18.1	5.9	B
WB	Left Turn						
	Through	316	282	89.4%	8.2	1.3	A
	Right Turn	182	148	81.3%	4.3	0.8	A
	Subtotal	498	430	86.4%	6.9	1.1	A
Total		1,296	1,179	91.0%	12.5	4.6	B

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	6	6	93.3%	16.1	22.5	B
	Through						
	Right Turn	6	11	180.0%	2.2	1.9	A
	Subtotal	12	16	136.7%	7.2	5.5	A
EB	Left Turn	6	4	73.3%	54.0	67.9	D
	Through	719	589	81.9%	46.9	23.5	D
	Right Turn						
	Subtotal	725	594	81.9%	46.9	23.5	D
WB	Left Turn						
	Through	492	417	84.7%	3.9	0.5	A
	Right Turn	6	8	126.7%	1.6	1.7	A
	Subtotal	498	424	85.2%	3.9	0.5	A
Total		1,235	1,034	83.8%	28.1	11.8	C

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	85	96.4%	20.4	2.6	C
	Through	46	51	110.4%	14.3	3.7	B
	Right Turn	5	5	96.0%	8.8	12.0	A
	Subtotal	139	140	101.0%	18.1	2.3	B
SB	Left Turn	73	72	99.2%	37.0	21.7	D
	Through	52	53	102.3%	16.5	4.1	B
	Right Turn						
	Subtotal	125	126	100.5%	28.5	14.7	C
EB	Left Turn						
	Through	566	406	71.8%	107.6	48.5	F
	Right Turn	159	105	66.2%	93.2	37.0	F
	Subtotal	725	512	70.6%	104.6	45.3	F
WB	Left Turn	29	32	111.7%	27.9	29.5	C
	Through	410	352	86.0%	3.4	0.5	A
	Right Turn	58	49	84.1%	1.9	0.8	A
	Subtotal	497	434	87.2%	5.1	2.1	A
Total		1,486	1,211	81.5%	50.2	17.6	D

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	10.4	8.2	B
	Through						
	Right Turn	205	190	92.7%	29.2	11.1	C
	Subtotal	210	196	93.1%	28.7	10.7	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	639	416	65.0%	83.1	19.0	F
	Right Turn	5	2	48.0%	38.5	59.2	D
	Subtotal	644	418	64.9%	83.1	19.0	F
WB	Left Turn	92	82	88.7%	39.2	4.8	D
	Through	492	442	89.9%	5.0	0.9	A
	Right Turn						
	Subtotal	584	524	89.7%	10.2	1.1	B
Total		1,438	1,138	79.1%	39.8	6.5	D

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	46	70.8%	36.6	6.7	D
	Through	221	212	95.7%	26.9	9.2	C
	Right Turn						
	Subtotal	286	258	90.1%	28.9	7.4	C
SB	Left Turn						
	Through	75	74	99.2%	38.1	13.3	D
	Right Turn	633	485	76.7%	26.4	10.6	C
	Subtotal	708	560	79.0%	27.9	11.1	C
EB	Left Turn	779	435	55.8%	49.2	7.4	D
	Through						
	Right Turn	272	144	53.1%	13.5	4.7	B
	Subtotal	1,051	579	55.1%	40.3	6.1	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,045	1,396	68.3%	33.3	5.7	C

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	228	140	61.6%	0.1	0.1	A
	Right Turn						
	Subtotal	228	140	61.6%	0.1	0.1	A
SB	Left Turn						
	Through	383	194	50.5%	0.9	0.1	A
	Right Turn						
	Subtotal	383	194	50.5%	0.9	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		611	334	54.7%	0.6	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	206	98.1%	0.3	0.1	A
	Subtotal	210	206	98.1%	0.3	0.1	A
SB	Left Turn Through Right Turn	97	84	86.6%	0.9	0.1	A
	Subtotal	97	84	86.6%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	290	94.5%	0.5	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	228	140	61.6%	0.1	0.1	A
	Subtotal	228	140	61.6%	0.1	0.1	A
SB	Left Turn Through Right Turn	383	192	50.2%	0.1	0.0	A
	Subtotal	383	192	50.2%	0.1	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		611	333	54.5%	0.1	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	206	98.1%	0.2	0.1	A
	Subtotal	210	206	98.1%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	84	86.6%	0.2	0.1	A
	Subtotal	97	84	86.6%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	290	94.5%	0.2	0.1	A

Baseline Plus Phase 1 Medical Center Option 1b Mitigations

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Baseline Plus Phase 1 Medical Center (Mitigated)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	884	834	94.3%	82.1	6.8	F
	Through	12	11	90.0%	78.8	32.7	E
	Right Turn	498	464	93.3%	58.3	7.4	E
	Subtotal	1,394	1,309	93.9%	73.7	6.9	E
EB	Left Turn						
	Through	298	312	104.6%	20.1	3.5	C
	Right Turn	46	48	103.5%	3.4	1.9	A
	Subtotal	344	359	104.4%	18.0	3.7	B
WB	Left Turn	254	253	99.7%	10.3	2.4	B
	Through	145	136	94.1%	6.4	1.8	A
	Right Turn						
	Subtotal	399	390	97.6%	9.0	1.9	A
Total		2,137	2,058	96.3%	51.7	4.6	D

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn	51	46	91.0%	24.4	7.1	C
	Through	8	10	130.0%	21.6	15.1	C
	Right Turn	821	810	98.7%	32.0	8.5	C
	Subtotal	880	867	98.5%	31.5	8.2	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	137	132	96.4%	18.8	9.5	B
	Through	1,045	1,001	95.8%	5.5	1.5	A
	Right Turn						
	Subtotal	1,182	1,133	95.9%	7.1	1.0	A
WB	Left Turn						
	Through	348	340	97.8%	17.8	2.3	B
	Right Turn	431	381	88.4%	3.3	0.5	A
	Subtotal	779	722	92.6%	10.1	1.0	B
Total		2,841	2,722	95.8%	15.8	2.8	B

SimTraffic Post-Processor | **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs | **Baseline Plus Phase 1 Medical Center (Mitigated)**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	232	224	96.6%	31.6	5.5	C
	Through	11	15	138.2%	28.2	14.6	C
	Right Turn	9	11	120.0%	8.6	8.0	A
	Subtotal	252	250	99.2%	30.7	5.2	C
SB	Left Turn	36	37	102.2%	36.4	11.1	D
	Through	3	2	80.0%	21.2	25.5	C
	Right Turn	68	74	108.2%	5.8	1.3	A
	Subtotal	107	113	105.4%	15.8	3.8	B
EB	Left Turn	126	112	89.2%	33.8	6.4	C
	Through	1,124	1,104	98.2%	15.8	2.4	B
	Right Turn	616	612	99.3%	3.7	0.4	A
	Subtotal	1,866	1,828	97.9%	12.8	1.4	B
WB	Left Turn	34	29	84.7%	32.4	10.4	C
	Through	479	433	90.4%	17.1	2.8	B
	Right Turn	10	10	104.0%	15.2	8.8	B
	Subtotal	523	472	90.3%	17.9	2.9	B
Total		2,748	2,663	96.9%	15.5	1.3	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	21	99.0%	42.3	12.6	D
	Through						
	Right Turn	8	10	120.0%	5.1	2.8	A
	Subtotal	29	30	104.8%	32.4	13.6	C
SB	Left Turn	15	20	130.7%	37.7	13.2	D
	Through						
	Right Turn	17	13	77.6%	5.6	4.3	A
	Subtotal	32	33	102.5%	25.2	9.6	C
EB	Left Turn	57	52	90.5%	41.4	8.6	D
	Through	1,018	999	98.1%	4.6	1.8	A
	Right Turn	94	85	90.2%	3.5	1.2	A
	Subtotal	1,169	1,135	97.1%	6.1	1.7	A
WB	Left Turn	21	20	95.2%	41.4	18.9	D
	Through	485	431	88.8%	7.4	3.3	A
	Right Turn	34	32	92.9%	6.5	2.6	A
	Subtotal	540	482	89.3%	8.6	3.1	A
Total		1,770	1,681	95.0%	7.7	1.5	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	40	96.6%	33.9	6.2	C
	Through	3	2	80.0%	20.5	26.1	C
	Right Turn	10	10	104.0%	7.7	4.5	A
	Subtotal	54	52	97.0%	29.2	7.0	C
SB	Left Turn	5	2	40.0%	20.2	28.2	C
	Through	10	8	80.0%	33.3	21.8	C
	Right Turn	7	6	80.0%	8.1	10.2	A
	Subtotal	22	16	70.9%	30.9	13.0	C
EB	Left Turn	56	49	87.1%	28.2	4.7	C
	Through	980	960	98.0%	7.0	1.2	A
	Right Turn	5	3	64.0%	7.0	14.7	A
	Subtotal	1,041	1,012	97.3%	8.0	1.1	A
WB	Left Turn	24	19	80.0%	40.4	12.1	D
	Through	492	444	90.3%	6.2	1.4	A
	Right Turn	26	24	92.3%	4.1	2.7	A
	Subtotal	542	488	90.0%	7.4	1.3	A
Total		1,659	1,568	94.5%	8.8	1.0	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	18.8	19.4	B
	Through	5	5	96.0%	26.7	24.7	C
	Right Turn	5	3	64.0%	5.1	4.3	A
	Subtotal	15	14	90.7%	24.8	14.1	C
SB	Left Turn	16	12	77.5%	32.3	19.9	C
	Through	5	3	56.0%	16.8	28.2	B
	Right Turn	20	20	100.0%	5.2	1.6	A
	Subtotal	41	35	85.9%	19.4	11.1	B
EB	Left Turn	54	48	88.1%	42.6	5.8	D
	Through	933	913	97.8%	4.4	1.1	A
	Right Turn	8	10	125.0%	1.3	1.1	A
	Subtotal	995	970	97.5%	6.3	1.4	A
WB	Left Turn	9	7	80.0%	48.2	20.6	D
	Through	517	470	90.8%	6.7	1.8	A
	Right Turn	17	20	117.6%	5.8	3.5	A
	Subtotal	543	497	91.5%	7.4	1.6	A
Total		1,594	1,516	95.1%	7.2	1.4	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	31	90.6%	47.5	14.6	D
	Through	82	72	87.3%	41.2	6.9	D
	Right Turn	310	301	97.2%	34.1	7.2	C
	Subtotal	426	404	94.7%	36.3	6.9	D
SB	Left Turn	7	5	74.3%	41.6	30.9	D
	Through	17	19	110.6%	36.2	14.6	D
	Right Turn	21	24	112.4%	41.2	13.8	D
	Subtotal	45	48	105.8%	40.8	7.6	D
EB	Left Turn	124	119	96.1%	51.3	4.4	D
	Through	734	712	97.1%	36.1	5.6	D
	Right Turn	96	85	88.8%	33.6	7.0	C
	Subtotal	954	917	96.1%	37.8	4.7	D
WB	Left Turn	452	348	77.1%	103.4	36.3	F
	Through	490	444	90.5%	39.8	15.8	D
	Right Turn	14	12	88.6%	34.0	22.0	C
	Subtotal	956	804	84.1%	67.1	23.3	E
Total		2,381	2,172	91.2%	48.4	9.8	D

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	13	106.7%	32.6	15.6	C
	Through	32	35	110.0%	29.2	6.8	C
	Right Turn	12	10	83.3%	5.9	4.2	A
	Subtotal	56	58	103.6%	26.4	7.1	C
SB	Left Turn	7	9	131.4%	31.7	11.8	C
	Through	7	4	57.1%	31.6	31.8	C
	Right Turn	32	32	101.3%	6.8	1.9	A
	Subtotal	46	46	99.1%	15.4	6.2	B
EB	Left Turn	137	130	94.6%	36.8	6.8	D
	Through	875	824	94.2%	8.7	2.3	A
	Right Turn	39	38	97.4%	4.9	0.5	A
	Subtotal	1,051	992	94.4%	12.2	2.3	B
WB	Left Turn	15	18	120.0%	47.5	13.0	D
	Through	1,020	910	89.2%	10.2	2.8	B
	Right Turn	51	59	116.1%	6.2	3.2	A
	Subtotal	1,086	987	90.9%	10.6	2.8	B
Total		2,239	2,082	93.0%	11.9	1.7	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	20	89.1%	35.5	15.0	D
	Through	7	8	114.3%	28.0	21.3	C
	Right Turn	27	24	88.9%	11.0	5.8	B
	Subtotal	56	52	92.1%	23.6	9.0	C
SB	Left Turn	40	42	105.0%	36.3	7.2	D
	Through	11	10	87.3%	40.3	16.0	D
	Right Turn	21	25	120.0%	20.6	9.4	C
	Subtotal	72	77	106.7%	32.3	6.7	C
EB	Left Turn	26	23	89.2%	44.6	13.9	D
	Through	840	775	92.3%	10.1	2.8	B
	Right Turn	28	28	100.0%	6.1	4.9	A
	Subtotal	894	826	92.4%	11.0	3.0	B
WB	Left Turn	27	18	65.2%	40.8	9.3	D
	Through	1,043	946	90.7%	10.1	1.7	B
	Right Turn	27	28	105.2%	6.6	2.3	A
	Subtotal	1,097	992	90.5%	10.5	1.6	B
Total		2,119	1,947	91.9%	12.0	2.2	B

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	65	64	98.5%	66.1	8.9	E
	Through	1,035	1,020	98.5%	15.7	2.2	B
	Right Turn	2	2	120.0%	0.9	0.8	A
	Subtotal	1,102	1,086	98.5%	18.6	1.9	B
SB	Left Turn						
	Through	2,468	2,157	87.4%	60.7	7.9	E
	Right Turn	1,096	987	90.1%	19.9	5.3	B
	Subtotal	3,564	3,144	88.2%	47.9	7.8	D
EB	Left Turn	843	629	74.6%	91.9	17.6	F
	Through						
	Right Turn	20	21	106.0%	25.0	12.0	C
	Subtotal	863	650	75.4%	89.7	17.5	F
WB	Left Turn						
	Through	1	2	200.0%	55.6	65.4	E
	Right Turn	2	3	160.0%	3.6	4.9	A
	Subtotal	3	5	173.3%	38.8	51.3	D
Total		5,532	4,886	88.3%	47.0	4.6	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline Plus Phase 1 Medical Center (Mitigated)**
Volume and Delay by Movement **AM Peak Hour**

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	144	140	96.9%	0.9	0.4	A
	Right Turn	3	5	173.3%	0.8	0.4	A
	Subtotal	147	145	98.5%	0.9	0.4	A
SB	Left Turn	245	251	102.5%	8.0	0.5	A
	Through	373	355	95.1%	6.0	0.4	A
	Right Turn						
	Subtotal	618	606	98.1%	6.8	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	3	6	186.7%	7.2	6.6	A
	Through						
	Right Turn	49	48	98.8%	3.3	0.5	A
	Subtotal	52	54	103.8%	4.2	2.1	A
Total		817	805	98.5%	5.6	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	46	103.6%	4.5	0.4	A
	Through	49	50	102.0%	5.8	0.4	A
	Right Turn						
	Subtotal	93	96	102.8%	5.2	0.4	A
SB	Left Turn						
	Through	31	25	80.0%	7.4	0.9	A
	Right Turn	8	6	75.0%	3.9	0.5	A
	Subtotal	39	31	79.0%	6.6	0.8	A
EB	Left Turn	5	4	72.0%	3.6	2.8	A
	Through						
	Right Turn	243	246	101.1%	4.5	0.5	A
	Subtotal	248	249	100.5%	4.5	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		380	376	98.8%	4.8	0.3	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	19	19	101.1%	34.5	7.4	C
	Through	258	263	102.0%	39.5	9.1	D
	Right Turn	18	19	104.4%	27.4	10.1	C
	Subtotal	295	301	102.1%	38.6	8.7	D
SB	Left Turn	11	8	72.7%	79.8	31.3	E
	Through	455	367	80.7%	40.3	9.0	D
	Right Turn	101	79	78.4%	38.8	9.6	D
	Subtotal	567	454	80.1%	40.7	8.6	D
EB	Left Turn	139	130	93.5%	44.6	8.9	D
	Through	54	56	104.4%	44.5	9.6	D
	Right Turn	61	70	115.4%	22.5	5.7	C
	Subtotal	254	257	101.1%	38.7	7.0	D
WB	Left Turn	228	202	88.4%	36.0	7.6	D
	Through	115	101	87.7%	32.2	5.7	C
	Right Turn	27	28	102.2%	31.2	4.2	C
	Subtotal	370	330	89.2%	34.5	5.4	C
Total		1,486	1,342	90.3%	38.4	4.0	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	31	32	103.2%	42.5	7.2	D
	Through	101	106	105.0%	36.7	5.0	D
	Right Turn	22	20	92.7%	38.6	10.4	D
	Subtotal	154	158	102.9%	38.1	4.0	D
SB	Left Turn	2	1	60.0%	4.1	12.3	A
	Through	17	16	94.1%	45.3	14.9	D
	Right Turn	9	4	44.4%	21.3	21.1	C
	Subtotal	28	21	75.7%	41.2	12.3	D
EB	Left Turn	5	5	96.0%	47.6	23.8	D
	Through	61	52	85.9%	31.2	4.6	C
	Right Turn	22	27	121.8%	19.6	5.9	B
	Subtotal	88	84	95.5%	28.4	5.5	C
SW	Left Turn	18	14	75.6%	7.3	4.1	A
	Through	2,289	2,024	88.4%	12.3	2.0	B
	Right Turn	262	235	89.8%	18.4	3.8	B
	Subtotal	2,569	2,273	88.5%	12.9	2.2	B
Total		2,839	2,537	89.4%	15.2	2.1	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	131	103.0%	9.6	1.2	A
	Through	1,075	1,057	98.3%	7.6	0.8	A
	Right Turn	6	5	86.7%	1.4	1.5	A
	Subtotal	1,208	1,193	98.7%	7.8	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	47	99.6%	16.7	5.5	B
	Through	6	6	93.3%	10.0	8.8	B
	Right Turn						
	Subtotal	53	52	98.9%	16.5	5.0	B
WB	Left Turn						
	Through	6	8	126.7%	13.0	10.9	B
	Right Turn	2	1	60.0%	1.1	1.7	A
	Subtotal	8	9	110.0%	11.5	9.4	B
Total		1,269	1,254	98.8%	8.2	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	18	110.0%	13.2	7.5	B
	Through	13	13	98.5%	8.3	7.7	A
	Right Turn						
	Subtotal	29	30	104.8%	11.6	5.0	B
SB	Left Turn						
	Through	25	25	100.8%	15.0	4.6	B
	Right Turn	33	36	109.1%	7.8	5.4	A
	Subtotal	58	61	105.5%	10.9	4.2	B
EB	Left Turn						
	Through	8	8	100.0%	22.9	14.4	C
	Right Turn						
	Subtotal	8	8	100.0%	22.9	14.4	C
WB	Left Turn	39	39	99.5%	6.6	2.8	A
	Through	2,441	2,139	87.6%	10.2	2.4	B
	Right Turn	8	9	110.0%	7.9	3.8	A
	Subtotal	2,488	2,187	87.9%	10.1	2.4	B
Total		2,583	2,286	88.5%	10.2	2.4	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	129	128	99.5%	1.5	0.5	A
	Right Turn	16	13	82.5%	1.1	0.4	A
	Subtotal	145	142	97.7%	1.5	0.5	A
SB	Left Turn	72	64	88.3%	4.3	1.2	A
	Through	304	292	96.1%	2.3	0.5	A
	Right Turn						
	Subtotal	376	356	94.6%	2.6	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	7	9	131.4%	7.9	3.1	A
	Through						
	Right Turn	18	16	86.7%	6.1	1.7	A
	Subtotal	25	25	99.2%	6.9	1.9	A
Total		546	522	95.6%	2.5	0.5	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	22	77.1%	6.3	2.1	A
	Through						
	Right Turn	125	127	101.4%	2.2	0.6	A
	Subtotal	153	148	97.0%	2.9	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	17	18	105.9%	5.7	2.9	A
	Right Turn	21	19	89.5%	4.1	3.2	A
	Subtotal	38	37	96.8%	4.9	3.0	A
WB	Left Turn	61	53	87.2%	4.5	1.2	A
	Through	92	90	98.3%	4.8	1.0	A
	Right Turn						
	Subtotal	153	144	93.9%	4.7	0.8	A
Total		344	329	95.6%	3.9	0.3	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	161	158	98.4%	9.1	1.0	A
	Right Turn	411	424	103.2%	5.8	1.2	A
	Subtotal	572	582	101.8%	6.7	1.1	A
SB	Left Turn	214	220	102.8%	43.8	40.7	D
	Through	340	330	97.2%	9.1	15.3	A
	Right Turn						
	Subtotal	554	550	99.4%	23.5	27.5	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	205	180	87.6%	26.2	2.4	C
	Through						
	Right Turn	10	7	72.0%	16.4	4.1	B
	Subtotal	215	187	86.9%	25.8	2.3	C
Total		1,341	1,320	98.4%	16.6	12.2	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	36	37	103.3%	6.3	1.5	A
	Through						
	Right Turn	51	44	87.1%	2.3	0.5	A
	Subtotal	87	82	93.8%	4.1	0.9	A
EB	Left Turn	78	82	104.6%	7.2	1.6	A
	Through	547	563	103.0%	5.5	0.8	A
	Right Turn						
	Subtotal	625	645	103.2%	5.7	0.8	A
WB	Left Turn						
	Through	164	144	87.6%	10.6	1.6	B
	Right Turn	38	38	100.0%	8.8	1.3	A
	Subtotal	202	182	89.9%	10.2	1.4	B
Total		914	908	99.3%	6.5	0.7	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	110	116	105.5%	7.5	1.9	A
	Through						
	Right Turn	10	14	144.0%	2.3	1.1	A
	Subtotal	120	130	108.7%	7.0	1.7	A
EB	Left Turn	53	53	99.6%	19.5	2.9	B
	Through	530	549	103.5%	13.7	1.0	B
	Right Turn						
	Subtotal	583	602	103.2%	14.2	1.0	B
WB	Left Turn						
	Through	192	168	87.5%	5.6	0.7	A
	Right Turn	381	330	86.7%	4.7	0.5	A
	Subtotal	573	498	87.0%	5.0	0.5	A
Total		1,276	1,230	96.4%	9.7	0.7	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	6	4	60.0%	9.0	9.9	A
	Through						
	Right Turn	6	4	73.3%	2.9	5.6	A
	Subtotal	12	8	66.7%	7.3	7.2	A
EB	Left Turn	6	5	86.7%	20.5	4.9	C
	Through	634	652	102.8%	20.5	1.7	C
	Right Turn						
	Subtotal	640	657	102.6%	20.5	1.7	C
WB	Left Turn						
	Through	567	500	88.1%	3.5	0.5	A
	Right Turn	6	5	86.7%	1.5	1.6	A
	Subtotal	573	505	88.1%	3.5	0.5	A
Total		1,225	1,170	95.5%	13.1	1.1	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	197	194	98.3%	18.1	3.2	B
	Through	11	13	120.0%	13.4	8.5	B
	Right Turn	7	8	108.6%	6.4	5.8	A
	Subtotal	215	214	99.7%	17.5	2.8	B
SB	Left Turn	5	4	80.0%	12.7	14.0	B
	Through	16	14	85.0%	13.5	6.6	B
	Right Turn	61	55	89.8%	4.1	1.3	A
	Subtotal	82	72	88.3%	6.5	2.2	A
EB	Left Turn	125	121	96.6%	38.5	4.4	D
	Through	404	421	104.3%	37.0	3.9	D
	Right Turn	111	112	101.3%	31.4	3.3	C
	Subtotal	640	654	102.3%	36.3	3.6	D
WB	Left Turn	10	6	60.0%	10.0	15.2	B
	Through	315	263	83.4%	3.4	0.8	A
	Right Turn	17	18	105.9%	2.1	1.2	A
	Subtotal	342	287	83.9%	3.5	0.6	A
Total		1,279	1,228	96.0%	23.7	2.5	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	8.2	8.7	A
	Through						
	Right Turn	40	44	111.0%	6.6	4.1	A
	Subtotal	45	48	107.6%	6.8	3.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	406	408	100.5%	13.4	2.9	B
	Right Turn	10	14	140.0%	11.7	12.3	B
	Subtotal	416	422	101.4%	13.3	2.8	B
WB	Left Turn	101	92	90.7%	35.7	4.9	D
	Through	337	288	85.3%	3.1	0.5	A
	Right Turn						
	Subtotal	438	379	86.6%	11.0	1.8	B
Total		899	850	94.5%	11.9	1.5	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	87	84	96.6%	31.8	5.8	C
	Through	29	26	88.3%	5.0	1.7	A
	Right Turn						
	Subtotal	116	110	94.5%	25.8	5.7	C
SB	Left Turn						
	Through	393	334	84.9%	25.4	5.2	C
	Right Turn	351	294	83.8%	20.1	5.7	C
	Subtotal	744	628	84.4%	22.9	5.4	C
EB	Left Turn	266	272	102.4%	13.8	3.1	B
	Through						
	Right Turn	180	167	92.9%	6.1	1.1	A
	Subtotal	446	440	98.6%	10.9	2.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,306	1,177	90.1%	18.7	3.6	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	215	210	97.7%	0.2	0.1	A
	Right Turn						
	Subtotal	215	210	97.7%	0.2	0.1	A
SB	Left Turn						
	Through	137	129	94.3%	0.5	0.1	A
	Right Turn						
	Subtotal	137	129	94.3%	0.5	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		352	339	96.4%	0.3	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	45	50	110.2%	0.0	0.0	A
	Subtotal	45	50	110.2%	0.0	0.0	A
SB	Left Turn Through Right Turn	111	105	94.8%	0.9	0.1	A
	Subtotal	111	105	94.8%	0.9	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		156	155	99.2%	0.6	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	215	209	97.3%	0.6	0.2	A
	Subtotal	215	209	97.3%	0.6	0.2	A
SB	Left Turn Through Right Turn	137	125	91.4%	0.0	0.0	A
	Subtotal	137	125	91.4%	0.0	0.0	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		352	334	95.0%	0.4	0.1	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	45	49	109.3%	0.1	0.1	A
	Right Turn						
	Subtotal	45	49	109.3%	0.1	0.1	A
SB	Left Turn						
	Through	111	105	94.8%	0.2	0.0	A
	Right Turn						
	Subtotal	111	105	94.8%	0.2	0.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		156	154	99.0%	0.2	0.0	A

Intersection 39 **N B St/N 6th St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	3.4	5.1	A
	Through						
	Right Turn	137	140	102.5%	4.0	0.6	A
	Subtotal	142	143	100.6%	4.1	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	117	125	106.7%	0.5	0.1	A
	Right Turn	12	19	160.0%	0.1	0.1	A
	Subtotal	129	144	111.6%	0.4	0.1	A
WB	Left Turn	141	126	89.1%	4.0	0.6	A
	Through	94	76	81.3%	1.4	0.4	A
	Right Turn						
	Subtotal	235	202	86.0%	3.1	0.5	A
Total		506	489	96.6%	2.6	0.3	A

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	442	432	97.7%	27.1	2.0	C
	Through	69	62	90.4%	29.6	5.2	C
	Right Turn	314	304	96.9%	8.9	1.2	A
	Subtotal	825	799	96.8%	20.4	1.7	C
EB	Left Turn						
	Through	592	548	92.5%	83.3	29.8	F
	Right Turn	56	54	96.4%	7.5	3.8	A
	Subtotal	648	602	92.8%	76.4	27.1	E
WB	Left Turn	659	554	84.1%	16.0	4.2	B
	Through	393	299	76.0%	9.0	1.7	A
	Right Turn						
	Subtotal	1,052	853	81.1%	13.6	3.1	B
Total		2,525	2,253	89.2%	32.8	7.3	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	46	80.0%	27.3	8.8	C
	Through	10	12	124.0%	35.4	16.3	D
	Right Turn	431	442	102.6%	9.1	1.1	A
	Subtotal	499	501	100.4%	11.3	1.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	430	350	81.5%	58.3	3.9	E
	Through	604	603	99.9%	1.9	0.3	A
	Right Turn						
	Subtotal	1,034	954	92.2%	22.6	2.0	C
WB	Left Turn						
	Through	994	803	80.8%	17.6	2.6	B
	Right Turn	1,174	894	76.2%	5.5	0.2	A
	Subtotal	2,168	1,697	78.3%	11.2	1.4	B
Total		3,701	3,152	85.2%	14.7	1.0	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	643	507	78.9%	137.9	39.4	F
	Through	4	28	700.0%	69.6	33.9	E
	Right Turn	9	7	80.0%	64.4	37.6	E
	Subtotal	656	542	82.7%	133.4	39.5	F
SB	Left Turn	34	30	89.4%	40.2	13.4	D
	Through	8	8	100.0%	27.9	21.5	C
	Right Turn	166	156	93.7%	15.7	3.3	B
	Subtotal	208	194	93.3%	20.2	3.1	C
EB	Left Turn	80	69	86.5%	31.7	5.1	C
	Through	688	700	101.8%	15.9	2.3	B
	Right Turn	267	294	110.3%	2.7	0.2	A
	Subtotal	1,035	1,064	102.8%	13.4	1.7	B
WB	Left Turn	18	17	93.3%	42.1	17.9	D
	Through	1,359	1,071	78.8%	56.3	10.5	E
	Right Turn	9	9	102.2%	60.5	39.1	E
	Subtotal	1,386	1,097	79.1%	56.2	10.6	E
Total		3,285	2,897	88.2%	52.0	8.4	D

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	94	105.2%	51.5	12.2	D
	Through						
	Right Turn	15	14	90.7%	5.7	3.2	A
	Subtotal	104	107	103.1%	46.2	12.1	D
SB	Left Turn	39	38	98.5%	33.1	7.3	C
	Through						
	Right Turn	17	19	112.9%	33.4	18.1	C
	Subtotal	56	58	102.9%	32.2	6.8	C
EB	Left Turn	13	12	92.3%	45.0	19.9	D
	Through	706	691	97.9%	3.4	0.8	A
	Right Turn	12	12	96.7%	2.7	1.7	A
	Subtotal	731	715	97.8%	4.2	1.2	A
WB	Left Turn	2	2	100.0%	23.9	31.5	C
	Through	1,280	1,010	78.9%	47.0	16.0	D
	Right Turn	10	8	76.0%	38.8	28.3	D
	Subtotal	1,292	1,019	78.9%	47.0	15.9	D
Total		2,183	1,899	87.0%	30.2	8.8	C

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	21	88.3%	35.6	16.2	D
	Through	5	6	112.0%	40.8	31.3	D
	Right Turn	24	32	133.3%	10.1	4.0	B
	Subtotal	53	59	110.9%	22.4	5.7	C
SB	Left Turn	24	22	90.0%	29.6	7.6	C
	Through	19	19	101.1%	34.0	10.7	C
	Right Turn	49	47	96.3%	20.3	8.2	C
	Subtotal	92	88	95.7%	26.4	6.4	C
EB	Left Turn	8	6	75.0%	32.0	16.0	C
	Through	747	726	97.2%	6.1	1.8	A
	Right Turn	5	6	128.0%	5.4	10.4	A
	Subtotal	760	738	97.2%	6.3	1.9	A
WB	Left Turn	11	16	141.8%	55.7	24.9	E
	Through	1,219	1,044	85.6%	35.9	21.6	D
	Right Turn	10	6	56.0%	71.4	72.5	E
	Subtotal	1,240	1,065	85.9%	36.3	21.6	D
Total		2,145	1,950	90.9%	24.0	11.5	C

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	1	30.0%	11.8	21.7	B
	Through	5	6	112.0%	30.0	18.3	C
	Right Turn	8	6	80.0%	4.2	3.0	A
	Subtotal	17	13	77.6%	20.7	16.0	C
SB	Left Turn	8	5	60.0%	31.8	24.5	C
	Through	5	4	88.0%	26.5	23.4	C
	Right Turn	70	66	93.7%	15.1	6.1	B
	Subtotal	83	75	90.1%	17.3	5.6	B
EB	Left Turn	16	15	95.0%	48.0	16.6	D
	Through	774	753	97.3%	3.4	0.7	A
	Right Turn	5	8	168.0%	2.6	2.9	A
	Subtotal	795	777	97.7%	4.2	0.9	A
WB	Left Turn	1	1	80.0%	5.6	9.5	A
	Through	1,166	1,111	95.3%	12.7	6.8	B
	Right Turn	3	6	200.0%	23.9	46.7	C
	Subtotal	1,170	1,118	95.6%	12.7	7.0	B
Total		2,065	1,983	96.0%	9.6	4.1	A

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	95	88.1%	38.2	9.5	D
	Through	27	26	96.3%	45.2	10.3	D
	Right Turn	409	360	87.9%	33.6	9.0	C
	Subtotal	544	481	88.4%	35.0	6.5	C
SB	Left Turn	53	59	110.9%	38.6	7.9	D
	Through	91	93	102.4%	33.3	7.3	C
	Right Turn	76	78	102.6%	29.4	5.9	C
	Subtotal	220	230	104.5%	33.4	4.4	C
EB	Left Turn	4	2	50.0%	10.9	19.0	B
	Through	699	667	95.4%	31.8	4.1	C
	Right Turn	87	84	96.1%	27.5	6.5	C
	Subtotal	790	752	95.2%	31.3	4.0	C
WB	Left Turn	191	182	95.5%	52.6	7.2	D
	Through	988	955	96.6%	21.5	3.0	C
	Right Turn	14	17	122.9%	20.2	6.4	C
	Subtotal	1,193	1,154	96.8%	26.4	3.1	C
Total		2,747	2,618	95.3%	30.1	2.6	C

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	37	103.3%	35.0	8.7	C
	Through	3	7	226.7%	23.5	26.0	C
	Right Turn	60	61	102.0%	10.1	2.4	B
	Subtotal	99	105	106.3%	20.0	3.3	C
SB	Left Turn	84	89	105.7%	28.5	4.9	C
	Through	63	55	87.6%	24.2	4.1	C
	Right Turn	134	152	113.7%	10.0	2.4	A
	Subtotal	281	296	105.5%	18.2	1.7	B
EB	Left Turn	37	39	105.9%	34.1	6.9	C
	Through	1,080	1,010	93.5%	8.4	0.9	A
	Right Turn	44	35	79.1%	5.4	1.1	A
	Subtotal	1,161	1,084	93.4%	9.3	0.9	A
WB	Left Turn	7	6	80.0%	17.6	18.8	B
	Through	945	921	97.4%	9.0	1.9	A
	Right Turn	17	17	98.8%	5.7	4.6	A
	Subtotal	969	943	97.3%	9.1	1.9	A
Total		2,510	2,429	96.8%	10.8	1.2	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	22	93.9%	35.2	12.7	D
	Through	6	5	80.0%	33.5	23.7	C
	Right Turn	30	34	113.3%	12.8	5.4	B
	Subtotal	59	60	102.4%	22.8	7.0	C
SB	Left Turn	29	25	86.9%	39.5	13.1	D
	Through	10	11	112.0%	36.6	8.9	D
	Right Turn	27	24	88.9%	14.2	9.9	B
	Subtotal	66	60	91.5%	29.6	9.3	C
EB	Left Turn	14	12	88.6%	44.3	20.6	D
	Through	1,183	1,109	93.8%	8.6	2.2	A
	Right Turn	27	19	69.6%	7.9	5.1	A
	Subtotal	1,224	1,140	93.2%	9.0	2.1	A
WB	Left Turn	18	17	93.3%	45.8	15.6	D
	Through	919	906	98.6%	7.2	1.0	A
	Right Turn	6	7	113.3%	5.2	4.0	A
	Subtotal	943	930	98.6%	7.9	1.2	A
Total		2,292	2,191	95.6%	9.5	1.3	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	58	96.7%	77.0	18.1	E
	Through	3,902	3,474	89.0%	47.4	11.4	D
	Right Turn	9	9	102.2%	36.4	25.1	D
	Subtotal	3,971	3,541	89.2%	47.9	11.4	D
SB	Left Turn						
	Through	1,840	1,797	97.7%	31.5	12.2	C
	Right Turn	871	859	98.6%	9.6	3.3	A
	Subtotal	2,711	2,656	98.0%	24.6	9.7	C
EB	Left Turn	970	788	81.2%	76.9	23.3	E
	Through						
	Right Turn	117	99	84.8%	23.8	19.6	C
	Subtotal	1,087	887	81.6%	71.0	23.4	E
WB	Left Turn						
	Through	5	3	56.0%	52.3	109.5	D
	Right Turn	7	9	131.4%	30.7	22.6	C
	Subtotal	12	12	100.0%	45.4	47.5	D
Total		7,781	7,096	91.2%	42.0	8.4	D

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	445	376	84.4%	57.5	31.2	F
	Right Turn	2	2	100.0%	38.4	26.6	E
	Subtotal	447	378	84.5%	57.4	31.2	F
SB	Left Turn	70	69	98.9%	9.3	1.8	A
	Through	238	267	112.1%	5.2	0.5	A
	Right Turn						
	Subtotal	308	336	109.1%	6.1	0.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	1	0	0.0%	0.0	0.0	A
	Through						
	Right Turn	247	220	89.1%	48.0	36.0	E
	Subtotal	248	220	88.7%	48.0	36.0	E
Total		1,003	934	93.1%	35.6	14.9	E

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	249	103.7%	5.7	0.3	A
	Through	45	45	99.6%	6.6	0.9	A
	Right Turn						
	Subtotal	285	294	103.0%	5.8	0.2	A
SB	Left Turn						
	Through	27	30	111.1%	7.5	0.7	A
	Right Turn	8	12	150.0%	4.4	0.7	A
	Subtotal	35	42	120.0%	6.6	0.7	A
EB	Left Turn	8	12	145.0%	4.5	1.6	A
	Through						
	Right Turn	64	59	91.9%	3.4	0.4	A
	Subtotal	72	70	97.8%	3.6	0.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		392	406	103.6%	5.5	0.2	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	98	89	90.6%	63.2	19.3	E
	Through	522	413	79.2%	65.0	23.1	E
	Right Turn	242	112	46.1%	62.8	22.5	E
	Subtotal	862	614	71.2%	64.4	21.9	E
SB	Left Turn	36	27	75.6%	117.1	37.1	F
	Through	320	225	70.3%	110.2	35.2	F
	Right Turn	15	48	320.0%	109.0	48.8	F
	Subtotal	371	300	80.9%	110.5	36.6	F
EB	Left Turn	1	71	7080.0%	50.4	8.9	D
	Through	55	164	298.9%	39.7	3.7	D
	Right Turn	18	13	73.3%	22.0	19.0	C
	Subtotal	74	248	335.7%	41.8	4.5	D
WB	Left Turn	272	170	62.5%	67.7	22.8	E
	Through	58	122	210.3%	35.9	4.4	D
	Right Turn	19	7	37.9%	34.8	19.2	C
	Subtotal	349	299	85.7%	54.7	15.5	D
Total		1,656	1,461	88.2%	67.9	13.5	E

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	43	40	92.1%	49.4	11.5	D
	Through	87	87	100.2%	32.9	6.4	C
	Right Turn	22	24	107.3%	33.4	14.9	C
	Subtotal	152	150	98.9%	37.8	5.4	D
SB	Left Turn	5	3	64.0%	29.6	23.6	C
	Through	109	98	89.5%	43.8	6.5	D
	Right Turn	7	8	108.6%	34.3	24.2	C
	Subtotal	121	108	89.6%	43.1	5.5	D
EB	Left Turn	5	4	88.0%	27.7	19.2	C
	Through	235	209	89.0%	33.2	9.4	C
	Right Turn	61	57	93.1%	25.4	8.9	C
	Subtotal	301	270	89.8%	31.5	8.9	C
SW	Left Turn	34	36	107.1%	8.2	3.4	A
	Through	1,619	1,539	95.1%	10.6	1.5	B
	Right Turn	256	235	91.9%	17.4	3.8	B
	Subtotal	1,909	1,811	94.9%	11.5	1.8	B
Total		2,483	2,340	94.2%	17.0	2.0	B

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	54	51	94.1%	11.9	1.8	B
	Through	3,401	3,387	99.6%	11.6	1.4	B
	Right Turn	2	2	80.0%	1.0	3.1	A
	Subtotal	3,457	3,440	99.5%	11.6	1.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	258	268	103.7%	22.6	2.2	C
	Through	3	3	106.7%	9.5	11.3	A
	Right Turn						
	Subtotal	261	271	103.8%	22.5	2.3	C
WB	Left Turn						
	Through	10	6	60.0%	9.3	10.5	A
	Right Turn	3	3	106.7%	6.0	8.1	A
	Subtotal	13	9	70.8%	9.3	6.0	A
Total		3,731	3,720	99.7%	12.3	1.4	B

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	33	105.8%	15.5	4.4	B
	Through	13	12	89.2%	11.9	7.3	B
	Right Turn						
	Subtotal	44	44	100.9%	15.0	4.3	B
SB	Left Turn						
	Through	158	141	89.4%	14.2	4.0	B
	Right Turn	65	61	94.2%	9.9	4.4	A
	Subtotal	223	202	90.8%	13.0	3.7	B
EB	Left Turn						
	Through	8	5	65.0%	23.3	17.1	C
	Right Turn						
	Subtotal	8	5	65.0%	23.3	17.1	C
WB	Left Turn	79	76	95.7%	7.4	1.6	A
	Through	1,871	1,782	95.2%	10.0	1.0	B
	Right Turn	7	6	80.0%	5.1	1.7	A
	Subtotal	1,957	1,863	95.2%	9.9	1.0	A
Total		2,232	2,115	94.8%	10.3	0.9	B

Intersection 42 **Bercut Dr/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	373	367	98.3%	3.3	0.9	A
	Right Turn	9	8	93.3%	1.4	0.8	A
	Subtotal	382	375	98.2%	3.2	0.9	A
SB	Left Turn	35	35	100.6%	12.5	1.9	B
	Through	204	220	107.8%	8.0	0.8	A
	Right Turn						
	Subtotal	239	255	106.8%	8.6	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	13	11	86.2%	6.8	2.5	A
	Through						
	Right Turn	74	73	98.4%	5.8	1.2	A
	Subtotal	87	84	96.6%	6.0	1.2	A
Total		708	714	100.9%	5.5	0.8	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	104	62	59.2%	6.5	1.0	A
	Through						
	Right Turn						
	Subtotal	104	62	59.2%	6.5	1.0	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn	125	19	15.4%	2.4	0.5	A
	Subtotal	125	19	15.4%	2.4	0.5	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		229	81	35.3%	5.5	1.0	A

Intersection 47 **Jibbom St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	374	370	99.0%	16.4	3.0	B
	Right Turn	295	278	94.1%	12.7	2.9	B
	Subtotal	669	648	96.9%	14.8	2.8	B
SB	Left Turn	86	80	92.6%	35.1	9.5	D
	Through	409	405	99.1%	6.9	1.6	A
	Right Turn						
	Subtotal	495	485	97.9%	11.5	2.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	376	305	81.1%	29.0	3.0	C
	Through						
	Right Turn	55	53	96.0%	19.7	3.5	B
	Subtotal	431	358	83.0%	27.7	3.1	C
Total		1,595	1,490	93.4%	16.8	2.7	B

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	86	92	107.0%	7.1	2.0	A
	Through						
	Right Turn	88	88	100.5%	4.4	1.6	A
	Subtotal	174	180	103.7%	5.8	1.2	A
EB	Left Turn	100	99	99.2%	9.0	1.5	A
	Through	281	257	91.5%	4.9	0.6	A
	Right Turn						
	Subtotal	381	356	93.5%	6.0	0.5	A
WB	Left Turn						
	Through	343	274	79.8%	12.9	1.5	B
	Right Turn	32	29	90.0%	9.4	1.7	A
	Subtotal	375	302	80.6%	12.5	1.4	B
Total		930	839	90.2%	8.3	0.8	A

Intersection 49 **PH Garage 2-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	372	364	97.7%	9.1	1.3	A
	Through						
	Right Turn	59	47	79.3%	2.2	0.8	A
	Subtotal	431	410	95.2%	8.3	1.2	A
EB	Left Turn	14	12	88.6%	18.0	5.8	B
	Through	353	335	94.8%	13.0	1.0	B
	Right Turn						
	Subtotal	367	347	94.6%	13.2	0.9	B
WB	Left Turn						
	Through	316	259	81.9%	6.7	0.9	A
	Right Turn	182	148	81.3%	3.1	0.5	A
	Subtotal	498	407	81.7%	5.4	0.6	A
Total		1,296	1,164	89.8%	8.7	0.5	A

Intersection 50 **HSB Entry-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	6	3	53.3%	7.9	11.0	A
	Through						
	Right Turn	6	6	93.3%	2.8	2.4	A
	Subtotal	12	9	73.3%	6.7	4.3	A
EB	Left Turn	6	7	113.3%	18.3	4.8	B
	Through	719	693	96.4%	19.6	1.4	B
	Right Turn						
	Subtotal	725	700	96.6%	19.6	1.4	B
WB	Left Turn						
	Through	492	406	82.4%	3.5	0.7	A
	Right Turn	6	6	93.3%	1.6	1.7	A
	Subtotal	498	411	82.6%	3.5	0.7	A
Total		1,235	1,120	90.7%	13.5	1.0	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	81	91.8%	15.5	4.0	B
	Through	46	40	87.0%	11.2	2.9	B
	Right Turn	5	4	88.0%	5.3	5.8	A
	Subtotal	139	125	90.1%	13.6	2.1	B
SB	Left Turn	73	6	8.8%	5.3	5.9	A
	Through	52	40	77.7%	8.4	4.7	A
	Right Turn						
	Subtotal	125	47	37.4%	8.3	4.0	A
EB	Left Turn						
	Through	566	438	77.3%	35.0	2.8	C
	Right Turn	159	162	101.9%	31.2	2.8	C
	Subtotal	725	600	82.7%	33.9	2.7	C
WB	Left Turn	29	14	48.3%	19.0	9.9	B
	Through	410	276	67.2%	6.6	1.6	A
	Right Turn	58	7	11.7%	4.5	5.2	A
	Subtotal	497	296	59.6%	7.2	1.6	A
Total		1,486	1,068	71.9%	23.0	2.0	C

Intersection 53 **N 6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	6.8	11.1	A
	Through						
	Right Turn	205	216	105.2%	7.9	1.9	A
	Subtotal	210	218	104.0%	8.0	1.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	639	444	69.4%	14.4	5.0	B
	Right Turn	5	5	96.0%	9.1	11.3	A
	Subtotal	644	448	69.6%	14.3	5.0	B
WB	Left Turn	92	79	86.1%	29.1	7.2	C
	Through	492	298	60.6%	6.5	0.5	A
	Right Turn						
	Subtotal	584	377	64.6%	11.2	1.3	B
Total		1,438	1,044	72.6%	12.0	2.4	B

Intersection 54 **N 7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	49	47	95.5%	27.0	9.0	C
	Through	221	232	104.8%	7.7	1.2	A
	Right Turn						
	Subtotal	270	278	103.1%	10.9	1.5	B
SB	Left Turn						
	Through	75	62	82.7%	18.0	3.8	B
	Right Turn	535	334	62.4%	9.8	1.0	A
	Subtotal	610	396	64.9%	11.0	1.2	B
EB	Left Turn	641	440	68.6%	19.4	5.7	B
	Through						
	Right Turn	203	212	104.6%	4.9	1.0	A
	Subtotal	844	652	77.3%	14.7	4.4	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,724	1,326	76.9%	12.9	2.6	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	139	122	87.8%	0.1	0.1	A
	Right Turn						
	Subtotal	139	122	87.8%	0.1	0.1	A
SB	Left Turn						
	Through	240	215	89.5%	0.7	0.1	A
	Right Turn						
	Subtotal	240	215	89.5%	0.7	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		379	337	88.9%	0.4	0.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	210	217	103.4%	0.2	0.1	A
	Subtotal	210	217	103.4%	0.2	0.1	A
SB	Left Turn Through Right Turn	97	84	87.0%	0.8	0.1	A
	Subtotal	97	84	87.0%	0.8	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		307	302	98.2%	0.4	0.1	A

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	139	122	88.1%	0.1	0.1	A
	Subtotal	139	122	88.1%	0.1	0.1	A
SB	Left Turn Through Right Turn	240	216	89.8%	0.2	0.1	A
	Subtotal	240	216	89.8%	0.2	0.1	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		379	338	89.2%	0.1	0.0	A

Intersection 63 **6th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	210	218	104.0%	0.1	0.1	A
	Right Turn						
	Subtotal	210	218	104.0%	0.1	0.1	A
SB	Left Turn						
	Through	97	84	87.0%	0.2	0.1	A
	Right Turn						
	Subtotal	97	84	87.0%	0.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		307	303	98.6%	0.1	0.0	A

Intersection 39 **N 6th St/N B St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	5.6	4.7	A
	Through						
	Right Turn	186	182	97.8%	3.6	0.3	A
	Subtotal	191	186	97.4%	3.7	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	69	62	90.4%	0.4	0.2	A
	Right Turn	5	5	96.0%	0.0	0.1	A
	Subtotal	74	67	90.8%	0.4	0.2	A
WB	Left Turn	122	109	89.2%	3.3	0.4	A
	Through	166	151	91.1%	1.7	0.4	A
	Right Turn						
	Subtotal	288	260	90.3%	2.4	0.4	A
Total		553	513	92.8%	2.6	0.2	A

Baseline Plus Stadium Mitigations

Intersection 1 **I 5 SB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	948	994	104.8%	34.2	3.0	C
	Through	3	4	120.0%	31.5	29.2	C
	Right Turn	320	332	103.6%	12.9	2.4	B
	Subtotal	1,271	1,329	104.5%	29.0	2.8	C
EB	Left Turn						
	Through	341	325	95.4%	21.4	2.4	C
	Right Turn	49	42	85.7%	3.5	1.5	A
	Subtotal	390	367	94.2%	19.3	2.3	B
WB	Left Turn	270	168	62.4%	7.9	1.9	A
	Through	206	157	76.3%	6.9	1.4	A
	Right Turn						
	Subtotal	476	326	68.4%	7.4	0.9	A
Total		2,137	2,022	94.6%	23.7	1.9	C

Intersection 2 **I 5 NB Ramps/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	101	91	90.3%	19.6	2.8	B
	Through	1	1	80.0%	7.1	16.2	A
	Right Turn	726	704	97.0%	21.4	3.3	C
	Subtotal	828	796	96.1%	21.2	2.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	176	169	95.9%	21.4	8.1	C
	Through	1,113	1,143	102.7%	11.1	7.6	B
	Right Turn						
	Subtotal	1,289	1,312	101.8%	12.4	6.4	B
WB	Left Turn						
	Through	375	248	66.1%	14.0	3.1	B
	Right Turn	328	229	69.8%	2.4	0.3	A
	Subtotal	703	477	67.8%	8.5	1.8	A
Total		2,820	2,584	91.6%	14.4	4.1	B

Intersection 3 **Bercut Dr/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	53	91.7%	33.1	7.9	C
	Through	5	5	104.0%	39.0	34.1	D
	Right Turn	2	3	160.0%	10.8	16.1	B
	Subtotal	65	62	94.8%	33.4	7.8	C
SB	Left Turn	23	20	85.2%	44.7	13.0	D
	Through	3	5	160.0%	21.5	22.6	C
	Right Turn	70	69	98.9%	4.9	0.9	A
	Subtotal	96	94	97.5%	14.6	3.0	B
EB	Left Turn	67	68	102.1%	43.1	10.9	D
	Through	1,614	1,602	99.3%	8.6	2.0	A
	Right Turn	158	154	97.2%	2.3	0.2	A
	Subtotal	1,839	1,824	99.2%	9.5	2.2	A
WB	Left Turn	15	9	61.3%	33.4	21.1	C
	Through	575	364	63.2%	9.9	3.1	A
	Right Turn	16	13	80.0%	6.4	7.7	A
	Subtotal	606	386	63.6%	10.4	3.5	B
Total		2,606	2,365	90.7%	10.5	2.1	B

Intersection 4 **N 3rd St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	10	73.8%	29.9	14.3	C
	Through						
	Right Turn	5	2	48.0%	5.4	9.2	A
	Subtotal	18	12	66.7%	28.9	11.5	C
SB	Left Turn	2	1	60.0%	6.1	10.4	A
	Through						
	Right Turn	11	11	101.8%	4.7	2.5	A
	Subtotal	13	12	95.4%	6.4	3.4	A
EB	Left Turn	11	11	98.2%	33.4	17.2	C
	Through	1,622	1,617	99.7%	3.9	1.6	A
	Right Turn	6	5	80.0%	3.0	4.9	A
	Subtotal	1,639	1,632	99.6%	4.1	1.6	A
WB	Left Turn						
	Through	582	372	64.0%	2.5	0.9	A
	Right Turn	2	1	60.0%	0.3	0.5	A
	Subtotal	584	374	64.0%	2.5	0.9	A
Total		2,254	2,030	90.1%	3.9	1.4	A

Intersection 5 **Sequoia Pacific Blvd/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	33	34	104.2%	40.2	7.2	D
	Through	4	3	80.0%	21.7	28.3	C
	Right Turn	22	19	85.5%	12.5	5.7	B
	Subtotal	59	56	95.6%	31.3	7.0	C
SB	Left Turn	10	11	112.0%	42.1	15.9	D
	Through	10	11	112.0%	26.8	18.5	C
	Right Turn	9	14	155.6%	7.7	4.3	A
	Subtotal	29	36	125.5%	27.2	12.5	C
EB	Left Turn	6	10	166.7%	53.9	21.9	D
	Through	1,603	1,602	99.9%	6.9	1.2	A
	Right Turn	20	15	74.0%	8.5	6.2	A
	Subtotal	1,629	1,626	99.8%	7.1	1.3	A
WB	Left Turn	3	1	26.7%	11.4	24.1	B
	Through	542	328	60.5%	3.9	1.3	A
	Right Turn	5	4	72.0%	0.7	1.0	A
	Subtotal	550	332	60.4%	3.9	1.1	A
Total		2,267	2,052	90.5%	7.6	1.2	A

Intersection 6 **N 5th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	0	40.0%	6.3	19.9	A
	Through						
	Right Turn	4	5	120.0%	13.6	16.9	B
	Subtotal	5	5	104.0%	15.6	16.5	B
SB	Left Turn	6	7	113.3%	33.9	31.3	C
	Through						
	Right Turn	8	6	75.0%	3.4	2.9	A
	Subtotal	14	13	91.4%	21.7	23.5	C
EB	Left Turn	10	10	104.0%	58.0	18.1	E
	Through	1,622	1,568	96.6%	16.6	4.5	B
	Right Turn	3	3	93.3%	12.6	12.6	B
	Subtotal	1,635	1,581	96.7%	16.8	4.5	B
WB	Left Turn	3	1	26.7%	7.8	13.0	A
	Through	541	328	60.7%	9.2	2.6	A
	Right Turn	2	1	40.0%	3.3	0.8	A
	Subtotal	546	330	60.4%	9.2	2.7	A
Total		2,200	1,929	87.7%	15.6	4.1	B

Intersection 7 **N 7th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	72	61	84.4%	54.3	14.7	D
	Through	119	114	96.1%	36.6	11.8	D
	Right Turn	104	95	91.5%	30.0	9.9	C
	Subtotal	295	270	91.7%	38.3	10.7	D
SB	Left Turn	7	10	148.6%	54.4	27.5	D
	Through	8	9	115.0%	43.7	35.5	D
	Right Turn	13	13	98.5%	45.1	20.0	D
	Subtotal	28	32	115.7%	47.9	14.0	D
EB	Left Turn	432	342	79.1%	123.9	24.3	F
	Through	574	556	96.9%	56.8	14.6	E
	Right Turn	219	206	94.2%	50.5	13.5	D
	Subtotal	1,225	1,104	90.1%	76.3	15.2	E
WB	Left Turn	355	222	62.4%	111.9	17.4	F
	Through	896	569	63.5%	93.9	22.2	F
	Right Turn	311	210	67.7%	98.5	31.0	F
	Subtotal	1,562	1,001	64.1%	98.9	20.6	F
Total		3,110	2,408	77.4%	81.0	10.7	F

Intersection 8 **N 10th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	168	142	84.5%	35.7	5.2	D
	Through	1	1	80.0%	8.0	18.7	A
	Right Turn	63	48	76.8%	6.1	1.7	A
	Subtotal	232	191	82.4%	28.2	4.3	C
SB	Left Turn	7	7	102.9%	29.3	16.4	C
	Through	6	4	66.7%	27.3	25.5	C
	Right Turn	37	38	101.6%	10.1	2.5	B
	Subtotal	50	49	97.6%	15.6	2.7	B
EB	Left Turn	14	14	97.1%	44.1	9.9	D
	Through	546	515	94.4%	9.4	1.6	A
	Right Turn	12	13	106.7%	5.5	1.5	A
	Subtotal	572	542	94.7%	10.3	1.4	B
WB	Left Turn	44	34	78.2%	39.9	9.2	D
	Through	1,794	1,318	73.5%	10.7	6.7	B
	Right Turn	12	6	53.3%	9.0	11.3	A
	Subtotal	1,850	1,359	73.5%	11.4	6.6	B
Total		2,704	2,141	79.2%	12.7	4.5	B

Intersection 9 **Dos Rios St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	72.0%	20.9	28.7	C
	Through	5	6	120.0%	40.9	24.8	D
	Right Turn	9	6	71.1%	5.9	5.8	A
	Subtotal	19	16	84.2%	28.3	14.5	C
SB	Left Turn	21	16	76.2%	37.1	15.3	D
	Through	7	6	80.0%	19.0	20.1	B
	Right Turn	16	19	117.5%	10.1	6.0	B
	Subtotal	44	40	91.8%	23.4	6.9	C
EB	Left Turn	4	4	100.0%	26.4	29.0	C
	Through	593	534	90.1%	5.2	1.4	A
	Right Turn	19	18	96.8%	4.9	3.7	A
	Subtotal	616	557	90.4%	5.5	1.4	A
WB	Left Turn	11	6	54.5%	41.8	29.2	D
	Through	1,829	1,359	74.3%	6.7	1.5	A
	Right Turn	2	2	100.0%	3.2	1.2	A
	Subtotal	1,842	1,367	74.2%	6.9	1.4	A
Total		2,521	1,980	78.5%	7.0	1.4	A

Intersection 10 **N 12th St-N 16th St/Richards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	51	52	102.7%	55.7	12.4	E
	Through	1,196	1,195	99.9%	8.3	1.2	A
	Right Turn	2	1	60.0%	0.9	1.9	A
	Subtotal	1,249	1,249	100.0%	10.2	1.3	B
SB	Left Turn						
	Through	1,644	1,368	83.2%	87.0	17.4	F
	Right Turn	1,817	1,334	73.4%	169.5	14.5	F
	Subtotal	3,461	2,703	78.1%	127.8	15.9	F
EB	Left Turn	615	508	82.5%	41.5	4.9	D
	Through						
	Right Turn	23	20	87.0%	4.7	0.5	A
	Subtotal	638	528	82.7%	40.1	4.7	D
WB	Left Turn						
	Through	13	12	92.3%	70.4	30.1	E
	Right Turn						
	Subtotal	13	12	92.3%	70.4	30.1	E
Total		5,361	4,491	83.8%	84.7	9.9	F

Intersection 11 **Bercut Dr/Bannon St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	7	7	102.9%	4.8	2.2	A
	Right Turn						
	Subtotal	7	7	102.9%	4.8	2.2	A
SB	Left Turn	160	148	92.5%	4.9	0.3	A
	Through	7	9	125.7%	4.8	0.3	A
	Right Turn						
	Subtotal	167	157	93.9%	4.9	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	2	1	60.0%	0.8	1.8	A
	Through						
	Right Turn	37	32	86.5%	2.8	0.5	A
	Subtotal	39	33	85.1%	2.8	0.5	A
Total		213	197	92.6%	4.6	0.3	A

Intersection 12 **Sequoia Pacific Blvd/Bannon St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	27	87.7%	4.4	0.5	A
	Through	49	50	101.2%	5.5	0.5	A
	Right Turn						
	Subtotal	80	77	96.0%	5.1	0.3	A
SB	Left Turn						
	Through	25	18	72.0%	6.2	0.8	A
	Right Turn	8	7	90.0%	3.2	1.7	A
	Subtotal	33	25	76.4%	5.5	1.0	A
EB	Left Turn	10	6	64.0%	2.8	1.8	A
	Through						
	Right Turn	150	138	91.7%	3.5	0.3	A
	Subtotal	160	144	90.0%	3.5	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		273	246	90.1%	4.2	0.2	A

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	36	81.8%	74.1	11.6	E
	Through	326	319	97.8%	54.5	11.2	D
	Right Turn	20	18	92.0%	47.2	20.2	D
	Subtotal	390	373	95.7%	56.1	11.1	E
SB	Left Turn	52	42	80.0%	62.7	10.9	E
	Through	25	24	97.6%	33.5	13.3	C
	Right Turn	83	59	71.3%	42.3	12.3	D
	Subtotal	160	125	78.3%	47.4	8.7	D
EB	Left Turn	116	110	95.2%	67.5	21.8	E
	Through	133	120	90.5%	23.3	2.4	C
	Right Turn	40	39	98.0%	17.3	3.3	B
	Subtotal	289	270	93.4%	41.2	11.7	D
WB	Left Turn	20	13	64.0%	54.8	14.2	D
	Through	206	174	84.3%	55.5	7.3	E
	Right Turn	195	163	83.5%	53.1	6.8	D
	Subtotal	421	349	82.9%	54.4	5.8	D
Total		1,260	1,118	88.7%	51.1	4.9	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	18	18	100.0%	46.8	21.7	D
	Through	283	299	105.7%	32.4	5.1	C
	Right Turn	5	7	144.0%	26.6	17.6	C
	Subtotal	306	324	106.0%	33.1	4.6	C
SB	Left Turn	5	3	56.0%	30.0	25.9	C
	Through	18	14	75.6%	43.2	26.9	D
	Right Turn	5	5	96.0%	24.3	20.2	C
	Subtotal	28	21	75.7%	45.1	17.9	D
EB	Left Turn						
	Through	159	151	94.8%	24.7	3.1	C
	Right Turn	29	27	93.8%	17.9	7.9	B
	Subtotal	188	178	94.7%	23.7	3.3	C
SW	Left Turn	202	174	86.3%	11.7	2.0	B
	Through	783	660	84.3%	12.1	2.8	B
	Right Turn	659	564	85.6%	26.0	12.3	C
	Subtotal	1,644	1,399	85.1%	17.6	5.4	B
Total		2,166	1,923	88.8%	21.2	3.7	C

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	432	451	104.4%	10.5	1.1	B
	Through	970	982	101.2%	6.5	0.8	A
	Right Turn	2	3	160.0%	0.5	1.1	A
	Subtotal	1,404	1,436	102.3%	7.8	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	43	34	80.0%	14.9	3.5	B
	Through	2	2	120.0%	7.8	10.6	A
	Right Turn						
	Subtotal	45	37	81.8%	14.6	2.6	B
WB	Left Turn						
	Through	1	0	0.0%	1.2	0.2	A
	Right Turn	3	4	120.0%	2.1	1.4	A
	Subtotal	4	4	90.0%	1.5	1.8	A
Total		1,453	1,476	101.6%	7.9	0.7	A

Intersection 16 **Sunbeam Ave-Sproule Ave/N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	10	86.7%	8.7	7.9	A
	Through	5	4	88.0%	9.5	15.2	A
	Right Turn						
	Subtotal	17	15	87.1%	9.5	7.3	A
SB	Left Turn						
	Through	7	4	51.4%	4.2	3.2	A
	Right Turn	9	4	40.0%	1.5	1.1	A
	Subtotal	16	7	45.0%	3.3	3.1	A
EB	Left Turn						
	Through	8	9	110.0%	8.1	6.5	A
	Right Turn						
	Subtotal	8	9	110.0%	8.1	6.5	A
WB	Left Turn	20	12	58.0%	2.4	3.0	A
	Through	1,645	1,386	84.3%	3.0	1.1	A
	Right Turn	2	0	0.0%	0.0	0.0	A
	Subtotal	1,667	1,398	83.9%	3.0	1.1	A
Total		1,708	1,429	83.7%	3.1	1.2	A

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	122	122	100.0%	9.7	1.3	A
	Subtotal	122	122	100.0%	9.7	1.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	175	156	89.1%	9.9	3.1	A
	Right Turn	20	17	84.0%	6.5	3.9	A
	Subtotal	195	173	88.6%	9.6	2.9	A
WB	Left Turn	242	222	91.6%	22.8	3.7	C
	Through	421	377	89.5%	19.2	11.3	B
	Right Turn						
	Subtotal	663	598	90.3%	20.7	7.6	C
Total		980	893	91.1%	17.2	5.3	B

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	157	157	100.1%	26.2	9.6	C
	Through						
	Right Turn	37	36	96.2%	105.6	80.7	F
	Subtotal	194	193	99.4%	41.8	23.4	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	334	308	92.1%	6.3	1.3	A
	Right Turn	7	6	91.4%	3.3	1.5	A
	Subtotal	341	314	92.1%	6.2	1.3	A
WB	Left Turn	35	27	77.7%	28.3	7.1	C
	Through	312	260	83.2%	2.1	0.7	A
	Right Turn						
	Subtotal	347	287	82.7%	4.6	1.2	A
Total		882	794	90.0%	14.5	6.5	B

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	26	94.3%	37.2	8.6	D
	Through	50	59	118.4%	16.9	5.4	B
	Right Turn	164	168	102.2%	9.6	2.5	A
	Subtotal	242	253	104.6%	14.3	2.7	B
SB	Left Turn	15	11	72.0%	55.1	19.7	E
	Through	62	46	73.5%	45.2	11.8	D
	Right Turn	195	151	77.5%	21.9	8.7	C
	Subtotal	272	208	76.3%	28.8	8.3	C
EB	Left Turn	114	101	88.4%	45.8	3.8	D
	Through	219	204	93.0%	26.0	6.3	C
	Right Turn	38	36	94.7%	15.0	6.1	B
	Subtotal	371	340	91.8%	30.9	3.5	C
WB	Left Turn	62	58	94.2%	65.7	13.4	E
	Through	124	118	95.2%	12.7	3.3	B
	Right Turn						
	Subtotal	186	176	94.8%	30.2	4.7	C
Total		1,071	978	91.3%	26.1	3.5	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	39	100.5%	60.9	13.5	E
	Through	276	256	92.9%	73.3	24.0	E
	Right Turn	258	258	99.8%	66.9	24.4	E
	Subtotal	573	553	96.5%	69.4	23.0	E
SB	Left Turn	8	6	75.0%	54.3	35.3	D
	Through	24	20	81.7%	33.9	9.6	C
	Right Turn						
	Subtotal	32	26	80.0%	41.7	9.2	D
EB	Left Turn	121	124	102.5%	54.7	6.9	D
	Through	235	232	98.7%	23.0	7.4	C
	Right Turn	42	36	84.8%	19.2	8.7	B
	Subtotal	398	392	98.4%	32.6	5.2	C
WB	Left Turn	48	51	105.8%	56.0	8.1	E
	Through	147	132	89.5%	25.5	3.6	C
	Right Turn	13	13	101.5%	24.3	12.7	C
	Subtotal	208	196	94.0%	33.6	4.0	C
Total		1,211	1,166	96.3%	50.3	11.5	D

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	54	44	82.2%	24.8	6.0	C
	Through						
	Right Turn	164	156	94.9%	10.9	2.4	B
	Subtotal	218	200	91.7%	13.8	2.6	B
EB	Left Turn	111	107	96.6%	29.4	3.6	C
	Through	107	109	101.7%	5.7	1.3	A
	Right Turn	283	285	100.6%	3.3	0.7	A
	Subtotal	501	501	100.0%	9.3	1.6	A
WB	Left Turn						
	Through	44	41	92.7%	6.3	2.8	A
	Right Turn	24	27	111.7%	2.0	1.5	A
	Subtotal	68	68	99.4%	4.7	2.0	A
Total		787	768	97.6%	10.0	1.6	B

Intersection 56 **N 10th St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	68	65	95.3%	4.0	0.4	A
	Subtotal	68	65	95.3%	4.0	0.4	A
EB	Left Turn	161	150	93.2%	4.6	0.9	A
	Through						
	Right Turn						
	Subtotal	161	150	93.2%	4.6	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		229	215	93.8%	4.4	0.6	A

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	620	626	101.0%	3.9	7.4	A
	Subtotal	620	626	101.0%	3.9	7.4	A
SB	Left Turn Through Right Turn	42	34	81.0%	0.9	0.2	A
	Subtotal	42	34	81.0%	0.9	0.2	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		662	660	99.7%	3.7	7.1	A

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	242	256	105.8%	2.5	0.6	A
	Subtotal	242	256	105.8%	2.5	0.6	A
SB	Left Turn Through Right Turn	162	134	82.7%	1.8	0.3	A
	Subtotal	162	134	82.7%	1.8	0.3	A
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn Through Right Turn						
	Subtotal						
Total		404	390	96.5%	2.3	0.4	A

Baseline Plus RSPU Pre-Event Mitigations

Intersection 13 **N 7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	21	67.1%	64.9	17.8	E
	Through	421	319	75.8%	57.4	13.5	E
	Right Turn	187	157	84.1%	55.1	13.3	E
	Subtotal	639	497	77.8%	56.9	13.0	E
SB	Left Turn	18	15	82.2%	61.4	30.0	E
	Through	128	129	100.9%	20.9	3.5	C
	Right Turn	7	7	102.9%	24.3	17.7	C
	Subtotal	153	151	98.8%	24.9	3.9	C
EB	Left Turn	89	74	83.1%	67.8	18.6	E
	Through	69	68	98.6%	28.4	7.1	C
	Right Turn	44	47	107.3%	19.3	4.0	B
	Subtotal	202	189	93.7%	42.4	9.4	D
WB	Left Turn	102	79	77.6%	82.9	25.8	F
	Through	142	143	100.8%	42.1	12.7	D
	Right Turn	175	152	86.6%	36.2	9.5	D
	Subtotal	419	374	89.3%	48.7	11.9	D
Total		1,413	1,212	85.7%	48.1	6.3	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	137	102	74.7%	175.3	29.1	F
	Through	255	211	82.8%	158.7	26.3	F
	Right Turn	260	193	74.2%	151.6	28.0	F
	Subtotal	652	506	77.7%	159.8	25.5	F
SB	Left Turn	45	45	100.4%	28.8	8.5	C
	Through	56	58	104.3%	28.1	5.5	C
	Right Turn	5	6	112.0%	17.2	16.5	B
	Subtotal	106	109	103.0%	28.2	4.2	C
EB	Left Turn						
	Through	313	248	79.1%	29.5	4.4	C
	Right Turn	98	74	75.1%	23.2	3.6	C
	Subtotal	411	321	78.2%	28.1	3.9	C
SW	Left Turn	194	178	92.0%	28.1	3.1	C
	Through	1,271	1,291	101.6%	29.3	1.9	C
	Right Turn	400	391	97.8%	39.3	6.5	D
	Subtotal	1,865	1,860	99.8%	31.4	2.5	C
Total		3,034	2,797	92.2%	54.2	4.7	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	747	741	99.2%	22.4	5.8	C
	Through	899	875	97.3%	9.0	0.8	A
	Right Turn	2	2	100.0%	1.3	1.8	A
	Subtotal	1,648	1,618	98.2%	15.1	2.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	293	244	83.1%	27.7	2.3	C
	Through	2	2	100.0%	13.4	15.2	B
	Right Turn						
	Subtotal	295	246	83.3%	27.7	2.3	C
WB	Left Turn						
	Through	1	2	160.0%	9.5	13.2	A
	Right Turn	3	4	133.3%	2.9	3.8	A
	Subtotal	4	6	140.0%	8.9	10.1	A
Total		1,947	1,869	96.0%	16.8	2.5	B

Intersection 38 **5th St/Bannon St-N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	97	88	91.1%	5.6	1.4	A
	Through						
	Right Turn	5	4	88.0%	2.6	4.0	A
	Subtotal	102	93	91.0%	5.5	1.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	140	142	101.4%	6.0	1.4	A
	Right Turn	105	114	109.0%	3.4	0.4	A
	Subtotal	245	256	104.7%	4.8	0.9	A
WB	Left Turn	8	7	85.0%	9.9	8.0	A
	Through	97	85	87.4%	6.3	1.2	A
	Right Turn						
	Subtotal	105	92	87.2%	6.6	1.4	A
Total		452	441	97.5%	5.3	0.9	A

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	25	78.8%	9.1	3.7	A
	Through						
	Right Turn	86	83	96.7%	5.1	0.6	A
	Subtotal	118	108	91.9%	6.1	0.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	116	116	99.7%	10.6	1.6	B
	Right Turn	29	32	111.7%	9.3	4.3	A
	Subtotal	145	148	102.1%	10.3	2.1	B
WB	Left Turn	107	104	96.8%	21.4	5.7	C
	Through	73	66	90.4%	6.1	1.3	A
	Right Turn						
	Subtotal	180	170	94.2%	15.4	3.6	B
Total		443	426	96.2%	11.3	1.8	B

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	98	88	90.2%	4.6	0.8	A
	Subtotal	98	88	90.2%	4.6	0.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	205	168	82.1%	6.0	1.2	A
	Right Turn	10	13	128.0%	5.3	3.2	A
	Subtotal	215	181	84.3%	6.0	1.2	A
WB	Left Turn	92	72	77.8%	13.6	1.7	B
	Through	419	394	93.9%	8.1	1.5	A
	Right Turn						
	Subtotal	511	465	91.0%	8.9	1.3	A
Total		824	735	89.2%	7.7	1.0	A

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	5	120.0%	23.5	17.7	C
	Through	359	266	74.0%	19.3	4.2	B
	Right Turn	161	119	73.8%	14.0	3.1	B
	Subtotal	524	389	74.3%	17.9	3.5	B
SB	Left Turn	16	12	77.5%	22.7	8.4	C
	Through	22	20	89.1%	10.9	6.0	B
	Right Turn	29	27	93.8%	6.3	2.9	A
	Subtotal	67	59	88.4%	11.5	3.9	B
EB	Left Turn	30	29	97.3%	28.1	5.1	C
	Through	234	195	83.4%	10.6	1.9	B
	Right Turn	5	5	96.0%	7.2	11.2	A
	Subtotal	269	229	85.2%	12.8	2.0	B
WB	Left Turn	55	51	93.1%	23.4	5.8	C
	Through	543	496	91.3%	14.1	2.1	B
	Right Turn	17	12	68.2%	11.8	8.2	B
	Subtotal	615	558	90.8%	14.9	1.8	B
Total		1,475	1,236	83.8%	15.4	1.3	B

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	488	433	88.8%	5.9	0.9	A
	Right Turn	39	38	96.4%	4.2	1.2	A
	Subtotal	527	471	89.3%	5.8	0.9	A
SB	Left Turn	22	23	103.6%	14.7	5.2	B
	Through	294	300	102.0%	7.5	1.4	A
	Right Turn						
	Subtotal	316	323	102.2%	8.0	1.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	17	20	120.0%	7.2	2.4	A
	Through						
	Right Turn	154	143	93.0%	7.2	1.2	A
	Subtotal	171	164	95.7%	7.2	1.1	A
Total		1,014	957	94.4%	6.8	0.8	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	89	75	84.5%	36.7	16.4	D
	Through	47	42	90.2%	11.9	2.7	B
	Right Turn	17	15	89.4%	5.6	3.4	A
	Subtotal	153	133	86.8%	26.0	11.6	C
SB	Left Turn	22	19	87.3%	31.3	8.6	C
	Through	80	84	105.0%	26.0	18.4	C
	Right Turn	11	13	116.4%	8.0	6.5	A
	Subtotal	113	116	102.7%	24.4	14.4	C
EB	Left Turn	12	11	93.3%	44.4	29.5	D
	Through	92	95	103.5%	37.4	37.3	D
	Right Turn	170	177	104.2%	28.5	32.2	C
	Subtotal	274	284	103.5%	32.0	33.1	C
WB	Left Turn	61	54	89.2%	36.2	30.7	D
	Through	43	42	98.6%	30.7	17.4	C
	Right Turn	43	40	92.1%	24.5	37.3	C
	Subtotal	147	136	92.8%	31.2	28.8	C
Total		687	669	97.4%	28.8	20.5	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	20	102.0%	6.2	2.0	A
	Through	5	6	128.0%	4.3	3.6	A
	Right Turn	34	32	95.3%	4.6	0.9	A
	Subtotal	59	59	100.3%	5.2	1.0	A
SB	Left Turn	5	6	112.0%	5.1	3.8	A
	Through	5	6	128.0%	6.9	4.0	A
	Right Turn	31	32	101.9%	3.6	0.8	A
	Subtotal	41	44	106.3%	4.7	1.0	A
EB	Left Turn	15	15	98.7%	4.3	1.2	A
	Through	90	85	94.2%	2.3	0.5	A
	Right Turn	26	30	113.8%	1.6	0.3	A
	Subtotal	131	129	98.6%	2.3	0.4	A
WB	Left Turn	13	10	80.0%	3.8	2.0	A
	Through	96	93	96.7%	2.3	0.2	A
	Right Turn	18	16	91.1%	1.8	0.6	A
	Subtotal	127	120	94.2%	2.4	0.2	A
Total		358	352	98.2%	3.1	0.2	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	11	74.7%	6.1	3.0	A
	Through	87	80	92.0%	10.7	0.8	B
	Right Turn	111	101	90.8%	7.3	1.0	A
	Subtotal	213	192	90.1%	8.8	0.7	A
SB	Left Turn						
	Through	136	132	97.4%	9.9	0.6	A
	Right Turn						
	Subtotal	136	132	97.4%	9.9	0.6	A
EB	Left Turn	31	30	96.8%	8.9	1.3	A
	Through	83	82	98.3%	10.2	1.3	B
	Right Turn	15	12	77.3%	5.5	1.8	A
	Subtotal	129	123	95.5%	9.5	1.3	A
WB	Left Turn	51	43	83.9%	7.3	1.6	A
	Through	112	108	96.4%	7.8	0.7	A
	Right Turn						
	Subtotal	163	151	92.5%	7.6	0.6	A
Total		641	598	93.4%	8.9	0.5	A

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	3	53.3%	4.1	4.7	A
	Through	496	391	78.9%	11.7	4.3	B
	Right Turn						
	Subtotal	502	394	78.6%	11.6	4.3	B
SB	Left Turn						
	Through	175	164	93.7%	6.8	1.6	A
	Right Turn	157	148	94.3%	3.7	0.3	A
	Subtotal	332	312	94.0%	5.3	0.9	A
EB	Left Turn	193	179	92.8%	8.4	1.0	A
	Through						
	Right Turn	1	0	40.0%	0.5	1.5	A
	Subtotal	194	180	92.6%	8.4	1.0	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,028	886	86.2%	8.8	1.9	A

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	549	550	100.1%	6.5	6.5	A
	Right Turn						
	Subtotal	549	550	100.1%	6.5	6.5	A
WB	Left Turn						
	Through	137	122	88.8%	1.0	0.2	A
	Right Turn						
	Subtotal	137	122	88.8%	1.0	0.2	A
Total		686	671	97.8%	5.6	5.4	A

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	38	98.5%	36.4	7.1	D
	Through	62	56	91.0%	22.0	3.9	C
	Right Turn	119	112	93.8%	14.3	1.3	B
	Subtotal	220	206	93.8%	20.2	0.9	C
SB	Left Turn	75	76	101.9%	40.5	11.2	D
	Through	202	202	100.2%	18.5	1.9	B
	Right Turn	8	9	110.0%	9.0	8.1	A
	Subtotal	285	288	100.9%	24.2	3.5	C
EB	Left Turn	15	15	98.7%	54.0	25.5	D
	Through	290	283	97.7%	34.8	8.2	C
	Right Turn	244	239	98.0%	27.5	6.5	C
	Subtotal	549	537	97.9%	32.1	7.4	C
WB	Left Turn	113	91	80.7%	34.0	4.9	C
	Through	90	76	84.0%	13.1	3.8	B
	Right Turn	290	237	81.8%	7.9	1.3	A
	Subtotal	493	404	81.9%	14.8	1.6	B
Total		1,547	1,435	92.8%	24.1	3.2	C

Intersection 49 **PH Garage Entry/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	99	82	82.8%	10.3	2.1	B
	Through	1	1	80.0%	2.5	6.6	A
	Right Turn	60	63	104.7%	7.1	0.7	A
	Subtotal	160	146	91.0%	8.9	1.3	A
SB	Left Turn	135	139	102.8%	10.0	1.7	B
	Through	1	2	160.0%	3.2	5.9	A
	Right Turn	52	53	102.3%	6.8	1.9	A
	Subtotal	188	194	103.0%	9.2	1.6	A
EB	Left Turn	16	16	100.0%	18.3	7.0	B
	Through	318	311	97.7%	11.0	1.4	B
	Right Turn	45	39	87.1%	8.6	2.6	A
	Subtotal	379	366	96.6%	11.0	1.6	B
WB	Left Turn	42	31	74.3%	16.4	5.6	B
	Through	325	253	77.9%	9.1	1.7	A
	Right Turn	104	89	85.4%	7.7	1.3	A
	Subtotal	471	373	79.2%	9.4	1.5	A
Total		1,198	1,078	90.0%	9.9	1.2	A

Intersection 50 **HSB Entry-Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	16	76.2%	13.0	5.1	B
	Through	5	7	144.0%	10.1	5.6	B
	Right Turn	59	56	95.6%	8.2	1.9	A
	Subtotal	85	80	93.6%	9.5	2.3	A
SB	Left Turn	10	10	96.0%	17.9	8.1	B
	Through	5	6	112.0%	4.0	4.8	A
	Right Turn	5	7	136.0%	6.0	3.4	A
	Subtotal	20	22	110.0%	12.0	4.4	B
EB	Left Turn	5	6	128.0%	11.8	8.0	B
	Through	500	498	99.5%	12.2	2.6	B
	Right Turn	8	8	105.0%	8.3	5.2	A
	Subtotal	513	512	99.9%	12.1	2.6	B
WB	Left Turn	4	2	40.0%	10.2	13.5	B
	Through	445	364	81.8%	13.1	1.7	B
	Right Turn	10	12	120.0%	11.5	6.6	B
	Subtotal	459	378	82.3%	13.2	1.7	B
Total		1,077	992	92.1%	12.4	1.7	B

Intersection 51 **5th St-Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	54	95.4%	40.0	8.4	D
	Through	100	89	89.2%	25.7	3.1	C
	Right Turn	19	17	88.4%	14.2	5.0	B
	Subtotal	176	160	91.1%	29.5	3.5	C
SB	Left Turn	82	66	80.5%	92.5	65.1	F
	Through	195	185	95.0%	34.9	23.2	C
	Right Turn	34	40	116.5%	26.7	13.7	C
	Subtotal	311	291	93.5%	46.2	30.4	D
EB	Left Turn	17	16	96.5%	49.3	12.6	D
	Through	456	423	92.8%	32.2	18.1	C
	Right Turn	70	65	92.6%	17.9	9.1	B
	Subtotal	543	504	92.9%	30.9	16.8	C
WB	Left Turn	49	30	61.2%	43.3	11.3	D
	Through	523	393	75.2%	13.2	2.2	B
	Right Turn	36	29	80.0%	11.6	4.5	B
	Subtotal	608	452	74.3%	15.1	2.6	B
Total		1,638	1,408	85.9%	28.1	8.7	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	14	16	111.4%	31.4	16.5	D
	Subtotal	14	16	111.4%	31.4	16.5	D
EB	Left Turn						
	Through	557	486	87.2%	19.9	12.9	C
	Right Turn						
	Subtotal	557	486	87.2%	19.9	12.9	C
WB	Left Turn						
	Through	594	436	73.3%	2.3	0.6	A
	Right Turn	16	12	75.0%	2.3	2.0	A
	Subtotal	610	448	73.4%	2.3	0.6	A
Total		1,181	949	80.3%	11.5	6.2	B

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	5	65.0%	10.9	17.3	B
	Through	138	139	100.9%	19.3	5.2	B
	Right Turn	332	304	91.7%	20.7	6.3	C
	Subtotal	478	449	93.9%	20.3	4.3	C
SB	Left Turn	18	12	68.9%	72.0	84.3	E
	Through	78	76	97.9%	18.6	4.2	B
	Right Turn	106	94	88.7%	12.5	2.7	B
	Subtotal	202	183	90.5%	19.0	6.2	B
EB	Left Turn	59	46	78.0%	86.8	30.9	F
	Through	479	387	80.8%	69.3	27.0	E
	Right Turn	19	27	141.1%	32.2	14.0	C
	Subtotal	557	460	82.6%	68.8	26.3	E
WB	Left Turn	275	206	74.8%	27.5	4.1	C
	Through	496	355	71.6%	15.5	2.2	B
	Right Turn	16	14	90.0%	15.7	7.6	B
	Subtotal	787	575	73.1%	19.9	2.6	B
Total		2,024	1,667	82.4%	33.1	7.0	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	301	238	79.2%	145.3	19.1	F
	Through	218	172	78.9%	124.3	17.1	F
	Right Turn	230	171	74.3%	125.1	22.1	F
	Subtotal	749	581	77.6%	133.7	16.5	F
SB	Left Turn	7	6	85.7%	62.9	38.3	E
	Through	169	152	89.7%	31.2	8.0	C
	Right Turn						
	Subtotal	176	158	89.5%	32.7	8.3	C
EB	Left Turn	259	201	77.5%	83.3	14.2	F
	Through	420	350	83.3%	40.0	4.6	D
	Right Turn	150	141	94.1%	12.0	1.4	B
	Subtotal	829	692	83.5%	47.4	4.9	D
WB	Left Turn	215	165	76.8%	83.6	17.8	F
	Through	486	371	76.4%	66.9	10.4	E
	Right Turn	25	20	80.0%	68.1	21.2	E
	Subtotal	726	556	76.6%	72.5	9.7	E
Total		2,480	1,987	80.1%	78.1	5.3	E

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Percent	Total Delay (sec/veh) Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	18	15	82.2%	15.5	8.2	B
	Subtotal	18	15	82.2%	15.5	8.2	B
EB	Left Turn	22	16	72.7%	32.6	10.2	C
	Through	502	389	77.5%	15.4	3.3	B
	Right Turn	133	112	84.5%	11.1	3.3	B
	Subtotal	657	518	78.8%	15.0	3.4	B
WB	Left Turn	50	43	85.6%	137.4	24.7	F
	Through	708	568	80.3%	121.6	26.6	F
	Right Turn	27	24	87.4%	117.5	27.8	F
	Subtotal	785	635	80.9%	122.6	26.3	F
Total		1,460	1,167	79.9%	73.2	13.0	E

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Percent	Total Delay (sec/veh) Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	23	23	99.1%	24.0	11.2	C
	Subtotal	23	23	99.1%	24.0	11.2	C
EB	Left Turn	502	383	76.3%	53.5	7.3	D
	Through						
	Right Turn						
	Subtotal	502	383	76.3%	53.5	7.3	D
WB	Left Turn						
	Through	762	652	85.6%	68.8	18.4	E
	Right Turn	51	47	91.8%	72.6	27.4	E
	Subtotal	813	699	86.0%	69.1	18.8	E
Total		1,338	1,105	82.6%	62.8	13.4	E

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	64.0%	4.9	4.5	A
	Through	45	45	100.4%	8.8	1.8	A
	Right Turn	63	57	90.8%	5.5	1.8	A
	Subtotal	113	106	93.5%	7.1	1.3	A
SB	Left Turn	7	4	51.4%	5.4	6.3	A
	Through	287	276	96.0%	18.5	4.8	C
	Right Turn	265	244	92.1%	15.3	4.7	C
	Subtotal	559	523	93.6%	17.0	4.7	C
EB	Left Turn	51	54	105.9%	7.0	1.9	A
	Through	83	84	101.7%	9.1	1.5	A
	Right Turn	5	6	120.0%	3.2	2.6	A
	Subtotal	139	144	103.9%	8.2	1.4	A
WB	Left Turn	75	71	94.9%	9.0	2.3	A
	Through	53	46	86.8%	10.9	1.8	B
	Right Turn	124	110	89.0%	6.5	1.0	A
	Subtotal	252	228	90.3%	8.2	1.3	A
Total		1,063	1,001	94.1%	12.8	2.7	B

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	45	38	84.4%	14.4	1.9	B
	Through						
	Right Turn	29	26	88.3%	11.7	2.3	B
	Subtotal	74	64	85.9%	13.5	1.6	B
EB	Left Turn	36	30	83.3%	5.9	1.5	A
	Through	117	119	101.5%	2.1	0.4	A
	Right Turn						
	Subtotal	153	149	97.3%	2.9	0.6	A
WB	Left Turn						
	Through	223	206	92.4%	0.9	0.3	A
	Right Turn	100	90	90.0%	0.6	0.5	A
	Subtotal	323	296	91.6%	0.8	0.2	A
Total		550	508	92.4%	3.0	0.4	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	20	117.6%	6.3	2.3	A
	Through	16	13	82.5%	9.2	3.3	A
	Right Turn	13	13	101.5%	4.5	3.0	A
	Subtotal	46	46	100.9%	6.7	2.0	A
SB	Left Turn	3	2	53.3%	7.2	5.4	A
	Through	5	5	104.0%	10.3	6.1	B
	Right Turn	4	3	80.0%	7.5	4.0	A
	Subtotal	12	10	83.3%	11.3	4.5	B
EB	Left Turn	54	56	103.7%	7.6	1.5	A
	Through	243	230	94.7%	8.8	1.4	A
	Right Turn	10	9	88.0%	5.0	4.4	A
	Subtotal	307	295	96.0%	8.5	1.4	A
WB	Left Turn	13	10	73.8%	11.4	4.2	B
	Through	297	270	91.0%	12.2	1.6	B
	Right Turn	15	12	82.7%	9.5	6.0	A
	Subtotal	325	292	90.0%	12.0	1.6	B
Total		690	644	93.3%	10.0	1.0	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	160	83.6%	27.0	4.6	C
	Through	334	312	93.5%	19.5	3.2	B
	Right Turn	282	253	89.6%	14.3	3.7	B
	Subtotal	807	725	89.8%	19.3	2.7	B
SB	Left Turn	127	107	84.1%	41.5	9.3	D
	Through	232	224	96.6%	20.5	3.1	C
	Right Turn	5	4	80.0%	14.1	18.5	B
	Subtotal	364	335	92.0%	27.1	4.2	C
EB	Left Turn	5	2	48.0%	38.8	25.5	D
	Through	131	130	99.5%	27.1	4.8	C
	Right Turn	123	111	90.1%	17.5	3.6	B
	Subtotal	259	244	94.1%	23.0	4.1	C
WB	Left Turn	10	6	64.0%	36.9	27.9	D
	Through	129	126	97.4%	28.2	7.0	C
	Right Turn	183	178	97.0%	22.0	7.4	C
	Subtotal	322	310	96.1%	24.9	7.4	C
Total		1,752	1,613	92.1%	22.7	2.9	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	242	236	97.7%	31.8	4.2	C
	Through	157	166	106.0%	19.8	2.8	B
	Right Turn						
	Subtotal	399	403	101.0%	26.8	3.6	C
SB	Left Turn						
	Through	326	270	82.7%	9.1	1.2	A
	Right Turn	46	39	84.3%	7.3	2.7	A
	Subtotal	372	308	82.9%	8.9	1.3	A
EB	Left Turn	321	286	89.2%	15.9	1.6	B
	Through						
	Right Turn	245	226	92.2%	8.3	1.8	A
	Subtotal	566	512	90.5%	12.5	1.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,337	1,224	91.5%	16.4	1.5	B

Intersection 62 **5th St/Stevens St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	98	96.5%	63.9	16.6	E
	Through	730	650	89.0%	58.3	24.8	E
	Right Turn	132	134	101.2%	56.9	24.5	E
	Subtotal	964	882	91.5%	58.9	23.9	E
SB	Left Turn	5	3	64.0%	37.5	30.7	D
	Through	350	328	93.8%	9.6	1.6	A
	Right Turn	10	11	112.0%	7.5	2.7	A
	Subtotal	365	343	93.9%	9.8	1.6	A
EB	Left Turn	66	60	90.3%	31.7	6.9	C
	Through	63	60	95.9%	33.5	4.3	C
	Right Turn	197	182	92.2%	20.7	4.0	C
	Subtotal	326	302	92.5%	25.4	4.0	C
WB	Left Turn	101	93	91.9%	47.4	24.0	D
	Through	36	28	76.7%	44.2	27.0	D
	Right Turn	11	14	130.9%	46.1	32.2	D
	Subtotal	148	135	91.1%	46.3	24.8	D
Total		1,803	1,661	92.1%	41.6	10.1	D

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Baseline Plus Railyards SP**
Volume and Delay by Movement **Pre-Event Hour**

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	42	44	103.8%	16.7	13.5	C
	Through	537	544	101.4%	9.8	0.8	A
	Right Turn						
	Subtotal	579	588	101.6%	10.5	1.7	B
SB	Left Turn						
	Through	342	295	86.3%	1.7	0.8	A
	Right Turn	96	82	85.8%	2.0	2.2	A
	Subtotal	438	378	86.2%	1.8	1.2	A
EB	Left Turn						
	Through						
	Right Turn	101	99	97.8%	5.9	0.9	A
	Subtotal	101	99	97.8%	5.9	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,118	1,064	95.2%	7.0	1.4	A

Cumulative Plus RSPU Pre-Event Mitigations

Intersection 13 **7th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	28	25	88.6%	59.0	22.8	E
	Through	314	291	92.6%	29.4	3.2	C
	Right Turn	202	176	87.3%	32.5	4.4	C
	Subtotal	544	492	90.4%	32.4	3.9	C
SB	Left Turn	136	107	78.5%	179.7	67.9	F
	Through	199	180	90.3%	26.2	7.8	C
	Right Turn	38	36	95.8%	21.6	9.0	C
	Subtotal	373	323	86.5%	76.6	24.9	E
EB	Left Turn	29	31	107.6%	81.9	22.0	F
	Through	366	365	99.8%	33.6	5.5	C
	Right Turn	5	5	104.0%	12.3	16.1	B
	Subtotal	400	402	100.4%	37.3	6.0	D
WB	Left Turn	305	136	44.6%	135.1	5.5	F
	Through	359	245	68.2%	38.9	6.6	D
	Right Turn	71	55	77.2%	43.1	15.1	D
	Subtotal	735	436	59.3%	69.6	6.0	E
Total		2,052	1,652	80.5%	51.9	6.5	D

Intersection 14 **Dos Rios St/N B St-N 12th St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
WB	Left Turn	25	18	73.6%	58.3	41.3	E
	Through	557	460	82.5%	41.9	31.9	D
	Right Turn	52	48	92.3%	39.1	35.9	D
	Subtotal	634	526	83.0%	41.9	31.2	D
SB	Left Turn						
	Through						
	Right Turn	13	15	116.9%	0.0	0.1	A
	Subtotal	13	15	116.9%	0.0	0.1	A
EB	Left Turn						
	Through	750	686	91.4%	29.3	3.2	C
	Right Turn	238	182	76.5%	36.0	4.9	D
	Subtotal	988	868	87.8%	30.7	3.5	C
SW	Left Turn	204	201	98.4%	17.2	1.8	B
	Through	763	738	96.7%	29.6	17.1	C
	Right Turn	453	376	82.9%	81.4	49.8	F
	Subtotal	1,420	1,314	92.6%	42.0	22.4	D
Total		3,055	2,723	89.1%	37.6	15.3	D

Intersection 15 **N 16th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	773	749	96.9%	46.0	15.9	D
	Through	757	778	102.8%	13.2	2.1	B
	Right Turn	11	12	109.1%	3.8	2.8	A
	Subtotal	1,541	1,539	99.9%	29.1	8.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	322	282	87.7%	16.9	1.5	B
	Through	12	14	116.7%	16.7	5.8	B
	Right Turn						
	Subtotal	334	296	88.7%	16.8	1.5	B
WB	Left Turn						
	Through	5	5	104.0%	5.9	6.0	A
	Right Turn	18	17	93.3%	3.5	1.0	A
	Subtotal	23	22	95.7%	4.6	1.9	A
Total		1,898	1,858	97.9%	26.9	7.5	C

Intersection 38 **5th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	207	178	85.8%	83.9	36.3	F
	Through	126	113	89.5%	22.7	21.8	C
	Right Turn	8	7	90.0%	20.6	24.5	C
	Subtotal	341	298	87.3%	59.8	32.0	E
SB	Left Turn	8	6	70.0%	21.4	13.6	C
	Through	119	113	95.1%	13.9	4.2	B
	Right Turn	34	36	107.1%	8.5	2.7	A
	Subtotal	161	155	96.4%	13.3	3.1	B
EB	Left Turn	24	20	85.0%	28.9	13.1	C
	Through	367	354	96.5%	15.8	2.4	B
	Right Turn	183	178	97.0%	7.4	1.0	A
	Subtotal	574	552	96.2%	13.7	1.9	B
WB	Left Turn	13	12	92.3%	32.9	9.3	C
	Through	360	272	75.7%	15.7	3.6	B
	Right Turn	1	1	120.0%	3.0	7.6	A
	Subtotal	374	286	76.4%	16.5	3.4	B
Total		1,450	1,290	89.0%	24.8	7.2	C

Intersection 39 **6th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	142	117	82.5%	13.3	2.6	B
	Through						
	Right Turn	101	92	90.7%	8.6	2.4	A
	Subtotal	243	209	85.9%	11.2	2.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	299	292	97.7%	16.8	4.5	B
	Right Turn	84	72	86.2%	15.4	5.6	B
	Subtotal	383	364	95.1%	16.5	4.6	B
WB	Left Turn	193	138	71.3%	33.1	12.9	C
	Through	232	175	75.5%	10.0	3.0	B
	Right Turn						
	Subtotal	425	313	73.6%	20.5	7.5	C
Total		1,051	886	84.3%	16.9	2.7	B

Intersection 40 **8th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	65	66	101.5%	7.3	1.8	A
	Subtotal	65	66	101.5%	7.3	1.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	682	623	91.4%	9.8	2.1	A
	Right Turn	2	2	100.0%	5.1	11.2	A
	Subtotal	684	625	91.4%	9.8	2.1	A
WB	Left Turn	119	53	44.7%	178.2	14.3	F
	Through	735	432	58.7%	106.8	22.2	F
	Right Turn						
	Subtotal	854	485	56.8%	114.9	19.3	F
Total		1,603	1,176	73.4%	52.9	7.8	D

Intersection 41 **10th St/N B St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	11	63.5%	191.6	171.6	F
	Through	162	143	88.1%	24.6	21.8	C
	Right Turn	305	266	87.3%	21.1	17.9	C
	Subtotal	484	420	86.8%	27.0	25.2	C
SB	Left Turn	8	7	85.0%	79.2	69.9	E
	Through	49	36	73.5%	86.6	79.4	F
	Right Turn	133	102	77.0%	91.6	53.2	F
	Subtotal	190	145	76.4%	89.4	54.9	F
EB	Left Turn	26	21	80.0%	43.7	15.9	D
	Through	675	613	90.8%	21.2	4.0	C
	Right Turn	11	12	112.7%	13.5	6.2	B
	Subtotal	712	646	90.7%	21.9	3.8	C
WB	Left Turn	211	158	74.9%	106.7	44.3	F
	Through	772	476	61.7%	139.9	65.7	F
	Right Turn	40	21	53.0%	122.5	81.7	F
	Subtotal	1,023	656	64.1%	131.7	60.6	F
Total		2,409	1,867	77.5%	63.8	22.3	E

Intersection 42 **Bercut Dr/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	390	335	85.9%	10.2	1.5	B
	Right Turn	105	92	88.0%	7.5	1.9	A
	Subtotal	495	428	86.4%	9.6	1.5	A
SB	Left Turn	21	19	91.4%	16.0	6.8	C
	Through	301	303	100.6%	6.8	1.6	A
	Right Turn						
	Subtotal	322	322	100.0%	7.3	1.8	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	68	67	98.2%	10.9	1.6	B
	Through						
	Right Turn	114	107	93.7%	8.1	1.8	A
	Subtotal	182	174	95.4%	9.2	1.2	A
Total		999	923	92.4%	8.7	1.1	A

Intersection 43 **5th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	70	80.0%	39.6	12.8	D
	Through	253	219	86.5%	12.9	3.6	B
	Right Turn	15	14	93.3%	7.6	4.4	A
	Subtotal	356	303	85.2%	18.6	3.9	B
SB	Left Turn	11	10	90.9%	43.6	20.0	D
	Through	284	276	97.2%	29.3	5.1	C
	Right Turn	20	20	98.0%	17.7	9.3	B
	Subtotal	315	306	97.0%	29.3	4.9	C
EB	Left Turn	76	75	98.4%	32.5	5.6	C
	Through	107	124	115.5%	33.3	2.7	C
	Right Turn	156	140	90.0%	24.4	5.9	C
	Subtotal	339	339	99.9%	29.4	4.1	C
WB	Left Turn	61	44	72.8%	31.5	8.9	C
	Through	46	34	74.8%	32.5	8.4	C
	Right Turn	16	15	95.0%	15.8	10.2	B
	Subtotal	123	94	76.4%	28.9	5.4	C
Total		1,133	1,042	91.9%	26.2	3.0	C

Intersection 44 **Judah St/South Park St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	3.8	3.0	A
	Through	5	4	72.0%	4.3	3.8	A
	Right Turn	16	13	82.5%	3.3	1.0	A
	Subtotal	26	21	80.0%	4.3	1.2	A
SB	Left Turn	8	6	80.0%	3.4	2.5	A
	Through	5	2	48.0%	3.0	3.3	A
	Right Turn	22	22	101.8%	3.8	1.2	A
	Subtotal	35	31	89.1%	4.1	1.0	A
EB	Left Turn	10	8	84.0%	2.9	1.5	A
	Through	112	125	111.4%	2.0	0.2	A
	Right Turn	11	12	109.1%	1.6	0.8	A
	Subtotal	133	145	109.2%	2.0	0.2	A
WB	Left Turn	8	4	45.0%	2.8	2.3	A
	Through	96	70	72.9%	1.8	0.3	A
	Right Turn	8	6	80.0%	1.2	1.0	A
	Subtotal	112	80	71.4%	1.8	0.2	A
Total		306	277	90.6%	2.4	0.1	A

Intersection 45 **6th St/South Park St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	8	88.9%	14.4	8.8	B
	Through	127	105	82.8%	11.8	1.9	B
	Right Turn	120	99	82.3%	8.3	1.3	A
	Subtotal	256	212	82.8%	10.2	1.5	B
SB	Left Turn	16	12	77.5%	8.1	1.5	A
	Through	241	177	73.5%	12.6	1.9	B
	Right Turn	20	19	94.0%	9.1	4.4	A
	Subtotal	277	208	75.2%	12.0	1.8	B
EB	Left Turn	43	48	110.7%	9.7	2.5	A
	Through	67	70	103.9%	11.7	2.1	B
	Right Turn	26	27	103.1%	8.2	2.3	A
	Subtotal	136	144	105.9%	10.4	2.0	B
WB	Left Turn	199	133	66.9%	9.8	2.1	A
	Through	83	53	64.1%	10.2	1.6	B
	Right Turn	69	54	77.7%	8.6	1.6	A
	Subtotal	351	240	68.4%	9.6	1.6	A
Total		1,020	804	78.9%	10.5	1.4	B

Intersection 46 **7th St/South Park St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	87	65	74.9%	20.1	3.0	C
	Through	401	401	100.0%	12.4	0.9	B
	Right Turn						
	Subtotal	488	466	95.6%	13.4	0.9	B
SB	Left Turn						
	Through	194	124	63.9%	11.3	1.2	B
	Right Turn	264	176	66.5%	7.8	1.6	A
	Subtotal	458	300	65.4%	9.3	1.2	A
EB	Left Turn	196	170	86.9%	17.0	2.2	B
	Through						
	Right Turn	7	7	97.1%	9.8	10.5	A
	Subtotal	203	177	87.3%	16.7	2.3	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,149	943	82.1%	12.7	0.5	B

Intersection 47 **Railyards Blvd/Jibboom St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	398	62	15.6%	493.5	45.5	F
	Through						
	Right Turn	41	4	9.8%	468.0	102.4	F
	Subtotal	439	66	15.0%	490.7	47.2	F
EB	Left Turn						
	Through	892	803	90.0%	74.7	42.1	E
	Right Turn						
	Subtotal	892	803	90.0%	74.7	42.1	E
WB	Left Turn						
	Through	835	736	88.2%	5.2	0.7	A
	Right Turn	242	210	86.9%	3.3	0.5	A
	Subtotal	1,077	947	87.9%	4.8	0.6	A
Total		2,408	1,816	75.4%	53.3	19.1	D

Intersection 48 **Bercut Dr/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	66	53	80.6%	50.6	10.2	D
	Through	38	35	92.6%	15.4	6.7	B
	Right Turn						
	Subtotal	104	88	85.0%	36.9	10.8	D
SB	Left Turn	1	0	40.0%	4.0	3.2	A
	Through	192	189	98.5%	35.9	6.7	D
	Right Turn	133	136	102.6%	30.7	8.4	C
	Subtotal	326	326	100.0%	33.7	7.3	C
EB	Left Turn	251	164	65.3%	45.8	4.2	D
	Through	621	426	68.6%	39.7	2.1	D
	Right Turn	418	274	65.6%	35.5	2.4	D
	Subtotal	1,290	864	67.0%	39.6	1.6	D
WB	Left Turn	87	74	85.5%	49.4	10.6	D
	Through	811	717	88.4%	17.1	3.8	B
	Right Turn	113	107	94.5%	12.6	2.8	B
	Subtotal	1,011	898	88.8%	19.3	3.8	B
Total		2,731	2,177	79.7%	30.3	1.8	C

Intersection 49 **Huntington St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	167	159	95.1%	20.2	2.4	C
	Through	1	1	80.0%	7.7	22.6	A
	Right Turn	21	20	95.2%	16.6	11.5	B
	Subtotal	189	180	95.0%	19.5	2.7	B
SB	Left Turn	59	66	112.5%	29.8	5.9	C
	Through	42	42	101.0%	31.9	5.1	C
	Right Turn	30	30	101.3%	18.3	8.0	B
	Subtotal	131	139	106.3%	27.7	3.7	C
EB	Left Turn	1	0	0.0%	4.0	1.7	A
	Through	569	388	68.1%	40.0	5.8	D
	Right Turn	50	34	68.8%	35.7	10.4	D
	Subtotal	620	422	68.1%	39.6	5.9	D
WB	Left Turn	15	14	90.7%	59.1	16.8	E
	Through	761	635	83.5%	35.2	1.7	D
	Right Turn	42	38	91.4%	22.8	5.7	C
	Subtotal	818	687	84.0%	35.0	2.0	D
Total		1,758	1,428	81.2%	33.8	2.2	C

Intersection 50 **Stanford St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	157	146	93.2%	36.0	6.6	D
	Through	5	5	96.0%	25.1	22.7	C
	Right Turn	90	101	112.4%	25.8	6.7	C
	Subtotal	252	252	100.2%	31.8	6.5	C
SB	Left Turn	10	9	92.0%	20.6	14.7	C
	Through	5	7	144.0%	18.3	16.0	B
	Right Turn	5	7	144.0%	7.5	6.9	A
	Subtotal	20	24	118.0%	16.1	8.2	B
EB	Left Turn	5	3	64.0%	40.1	38.8	D
	Through	650	488	75.0%	18.4	9.2	B
	Right Turn						
	Subtotal	655	491	74.9%	18.7	9.2	B
WB	Left Turn	7	4	62.9%	30.4	27.7	C
	Through	608	490	80.7%	30.0	5.3	C
	Right Turn	10	7	72.0%	22.6	18.2	C
	Subtotal	625	502	80.3%	30.0	5.1	C
Total		1,552	1,269	81.8%	25.9	4.3	C

Intersection 51 **5th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	17	16	96.5%	52.9	14.5	D
	Through	153	146	95.7%	35.5	5.8	D
	Right Turn	66	62	93.9%	25.3	5.4	C
	Subtotal	236	225	95.3%	34.2	4.9	C
SB	Left Turn	94	84	89.4%	45.0	11.4	D
	Through	234	210	89.6%	33.6	11.3	C
	Right Turn	110	105	95.6%	24.6	8.6	C
	Subtotal	438	399	91.1%	33.8	9.6	C
EB	Left Turn	118	87	73.9%	34.3	7.5	C
	Through	574	458	79.8%	12.2	3.7	B
	Right Turn	13	10	80.0%	7.5	7.7	A
	Subtotal	705	556	78.8%	15.6	4.2	B
WB	Left Turn	153	123	80.3%	31.6	5.4	C
	Through	523	410	78.5%	21.0	4.1	C
	Right Turn	37	26	71.4%	18.6	7.4	B
	Subtotal	713	560	78.5%	23.2	3.9	C
Total		2,092	1,739	83.1%	24.7	2.3	C

Intersection 52 **Judah St/Railyards Blvd** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	22	17	76.4%	32.4	18.0	D
	Subtotal	22	17	76.4%	32.4	18.0	D
EB	Left Turn	12	11	93.3%	12.4	8.7	B
	Through	722	592	82.0%	3.6	3.0	A
	Right Turn						
	Subtotal	734	603	82.2%	3.8	3.0	A
WB	Left Turn						
	Through	691	551	79.7%	2.4	0.4	A
	Right Turn	13	10	80.0%	1.1	0.4	A
	Subtotal	704	561	79.7%	2.3	0.4	A
Total		1,460	1,181	80.9%	3.5	1.6	A

Intersection 53 **6th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	6	75.0%	42.2	30.8	D
	Through	41	41	100.5%	33.5	16.2	C
	Right Turn	195	190	97.4%	23.9	13.1	C
	Subtotal	244	237	97.2%	26.5	12.7	C
SB	Left Turn	61	47	77.4%	54.4	13.2	D
	Through	182	130	71.2%	26.5	3.9	C
	Right Turn	219	165	75.3%	20.6	3.1	C
	Subtotal	462	342	73.9%	27.5	3.3	C
EB	Left Turn	161	126	78.0%	40.4	12.4	D
	Through	552	446	80.7%	26.6	8.7	C
	Right Turn	9	7	75.6%	5.9	4.5	A
	Subtotal	722	578	80.1%	29.4	9.4	C
WB	Left Turn	205	176	85.7%	36.7	4.8	D
	Through	477	392	82.1%	26.1	3.8	C
	Right Turn	46	42	91.3%	22.6	6.0	C
	Subtotal	728	609	83.7%	29.0	3.7	C
Total		2,156	1,766	81.9%	28.6	3.9	C

Intersection 54 **7th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	355	312	88.0%	125.9	26.9	F
	Through	313	305	97.4%	37.6	6.6	D
	Right Turn	262	258	98.5%	29.6	6.5	C
	Subtotal	930	875	94.1%	66.8	12.3	E
SB	Left Turn	20	11	54.0%	54.2	20.8	D
	Through	181	112	61.7%	31.9	6.0	C
	Right Turn						
	Subtotal	201	122	60.9%	34.0	5.5	C
EB	Left Turn	154	133	86.2%	86.9	15.7	F
	Through	376	336	89.3%	39.4	6.7	D
	Right Turn	278	212	76.4%	14.7	3.5	B
	Subtotal	808	681	84.3%	41.4	4.9	D
WB	Left Turn	155	111	71.5%	153.2	54.2	F
	Through	373	300	80.5%	149.2	70.6	F
	Right Turn	21	20	93.3%	136.5	67.5	F
	Subtotal	549	431	78.5%	149.8	65.5	F
Total		2,488	2,109	84.8%	73.0	11.8	E

Intersection 55 **8th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	3	2	53.3%	7.0	7.7	A
	Through						
	Right Turn	11	4	32.7%	20.5	20.5	C
	Subtotal	14	5	37.1%	23.4	19.1	C
EB	Left Turn	3	2	53.3%	12.3	22.5	B
	Through	452	407	90.0%	16.2	1.7	B
	Right Turn	203	190	93.8%	13.7	1.4	B
	Subtotal	658	599	91.0%	15.5	1.5	B
WB	Left Turn	12	10	86.7%	24.4	13.3	C
	Through	538	428	79.5%	57.9	47.1	E
	Right Turn	2	2	120.0%	43.7	66.9	D
	Subtotal	552	440	79.8%	57.2	45.9	E
Total		1,224	1,044	85.3%	32.9	19.7	C

Intersection 56 **10th St/Railyards Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	161	119	73.8%	13.7	4.1	B
	Subtotal	161	119	73.8%	13.7	4.1	B
EB	Left Turn	455	398	87.5%	30.1	2.7	C
	Through						
	Right Turn						
	Subtotal	455	398	87.5%	30.1	2.7	C
WB	Left Turn						
	Through	391	336	86.0%	40.1	28.3	D
	Right Turn	3	1	26.7%	5.4	17.2	A
	Subtotal	394	337	85.6%	40.1	28.3	D
Total		1,010	854	84.6%	31.6	11.2	C

Intersection 57 **Bercut Dr/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	7	136.0%	3.9	3.0	A
	Through	60	53	88.7%	8.9	1.8	A
	Right Turn	40	45	112.0%	4.7	1.5	A
	Subtotal	105	105	99.8%	6.9	1.3	A
SB	Left Turn	181	132	72.7%	10.6	1.6	B
	Through	34	26	77.6%	10.9	2.0	B
	Right Turn	20	19	94.0%	7.2	1.4	A
	Subtotal	235	177	75.2%	10.3	1.5	B
EB	Left Turn	41	37	90.7%	7.1	1.3	A
	Through	68	66	97.1%	8.8	1.0	A
	Right Turn	5	4	72.0%	2.6	2.4	A
	Subtotal	114	107	93.7%	8.0	0.8	A
WB	Left Turn	74	65	87.6%	7.1	0.9	A
	Through						
	Right Turn	166	136	81.7%	6.1	1.1	A
	Subtotal	240	200	83.5%	6.4	1.0	A
Total		694	589	84.8%	7.9	0.9	A

Intersection 58 **Huntington St/Camille Ln** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	60	50	82.7%	12.5	4.1	B
	Through						
	Right Turn	8	6	80.0%	4.7	5.2	A
	Subtotal	68	56	82.4%	11.8	4.0	B
EB	Left Turn	2	2	80.0%	2.9	3.0	A
	Through	328	283	86.2%	2.0	0.3	A
	Right Turn						
	Subtotal	330	284	86.2%	2.0	0.3	A
WB	Left Turn						
	Through	253	210	82.8%	4.2	0.4	A
	Right Turn	167	163	97.7%	3.3	0.2	A
	Subtotal	420	373	88.8%	3.8	0.3	A
Total		818	713	87.2%	3.8	0.4	A

Intersection 59 **Stanford St/Camille Ln** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	48.0%	2.4	2.7	A
	Through	28	30	108.6%	9.2	2.6	A
	Right Turn	4	6	140.0%	4.5	3.1	A
	Subtotal	37	38	103.8%	8.3	1.4	A
SB	Left Turn	5	3	56.0%	1.7	2.2	A
	Through	5	4	80.0%	6.5	5.4	A
	Right Turn	7	9	125.7%	4.7	2.4	A
	Subtotal	17	16	91.8%	6.0	2.1	A
EB	Left Turn	13	12	92.3%	10.4	3.4	B
	Through	356	301	84.5%	12.4	2.9	B
	Right Turn	1	2	160.0%	3.4	3.9	A
	Subtotal	370	314	85.0%	12.2	2.9	B
WB	Left Turn						
	Through	324	288	88.9%	16.0	2.2	C
	Right Turn	80	80	100.5%	14.1	3.1	B
	Subtotal	404	368	91.2%	15.5	2.2	C
Total		828	737	89.0%	13.6	1.8	B

Intersection 60 **5th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	135	128	95.1%	46.6	9.0	D
	Through	246	383	155.6%	32.1	8.1	C
	Right Turn	191	74	38.7%	26.3	7.9	C
	Subtotal	572	585	102.3%	34.7	7.5	C
SB	Left Turn	76	70	91.6%	46.3	15.6	D
	Through	198	163	82.2%	18.0	2.3	B
	Right Turn	12	10	86.7%	14.6	7.0	B
	Subtotal	286	243	84.9%	26.5	7.8	C
EB	Left Turn	5	4	72.0%	27.1	26.0	C
	Through	187	160	85.8%	35.1	7.1	D
	Right Turn	173	144	83.0%	24.0	6.1	C
	Subtotal	365	308	84.3%	30.0	6.5	C
WB	Left Turn	135	128	94.5%	30.6	8.1	C
	Through	246	226	91.9%	17.7	4.1	B
	Right Turn	191	178	93.4%	12.3	3.4	B
	Subtotal	572	532	93.0%	18.9	3.9	B
Total		1,795	1,668	92.9%	27.6	3.9	C

Intersection 61 **6th St/Camille Ln** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	290	297	102.3%	35.8	10.4	D
	Through	59	62	104.4%	16.2	13.0	B
	Right Turn						
	Subtotal	349	358	102.7%	32.5	10.6	C
SB	Left Turn						
	Through	186	149	80.0%	22.9	2.0	C
	Right Turn	210	162	77.0%	17.8	2.0	B
	Subtotal	396	310	78.4%	20.3	1.9	C
EB	Left Turn	185	186	100.8%	31.3	5.7	C
	Through						
	Right Turn	192	155	80.8%	7.2	1.0	A
	Subtotal	377	342	90.6%	20.4	3.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,122	1,010	90.1%	24.8	4.9	C

Intersection 62 **5th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	108	106	98.1%	39.6	6.8	E
	Through	550	533	96.9%	16.0	5.6	C
	Right Turn	54	63	117.0%	11.2	3.4	B
	Subtotal	712	702	98.7%	19.2	5.0	C
SB	Left Turn	44	36	81.8%	54.8	13.3	F
	Through	380	338	88.8%	6.4	1.7	A
	Right Turn	82	64	77.6%	3.1	1.4	A
	Subtotal	506	437	86.4%	10.1	3.4	B
EB	Left Turn	20	20	100.0%	38.3	10.7	E
	Through	86	90	105.1%	35.4	7.7	E
	Right Turn	144	146	101.7%	25.0	8.7	C
	Subtotal	250	257	102.7%	29.6	7.8	D
WB	Left Turn	87	84	96.1%	56.9	20.7	F
	Through	16	13	82.5%	70.7	63.6	F
	Right Turn	30	33	109.3%	39.1	18.7	E
	Subtotal	133	130	97.4%	53.3	19.7	F
Total		1,601	1,526	95.3%	21.2	3.7	C

Intersection 63 **6th St/Stevens St** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	50	45	89.6%	7.7	2.4	A
	Through	497	498	100.1%	6.3	6.3	A
	Right Turn						
	Subtotal	547	542	99.2%	6.4	6.0	A
SB	Left Turn						
	Through	301	240	79.9%	1.0	0.4	A
	Right Turn	34	26	77.6%	1.0	1.4	A
	Subtotal	335	267	79.6%	1.0	0.4	A
EB	Left Turn						
	Through						
	Right Turn	75	73	97.1%	8.3	1.9	A
	Subtotal	75	73	97.1%	8.3	1.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		957	882	92.2%	5.0	4.0	A

Intersection 34 **5th St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	89	95.9%	45.3	6.1	D
	Through	229	224	97.6%	27.1	4.9	C
	Right Turn	418	391	93.5%	17.5	8.4	B
	Subtotal	740	704	95.1%	24.2	5.9	C
SB	Left Turn	93	99	106.2%	41.8	5.2	D
	Through	156	178	113.8%	22.8	2.8	C
	Right Turn	15	18	117.3%	7.1	6.6	A
	Subtotal	264	294	111.4%	28.3	2.9	C
EB	Left Turn	7	9	125.7%	51.2	35.7	D
	Through	235	236	100.4%	28.9	2.4	C
	Right Turn	71	79	111.5%	17.3	6.0	B
	Subtotal	313	324	103.5%	26.3	3.5	C
WB	Left Turn	264	216	81.8%	40.0	6.6	D
	Through	231	189	81.9%	19.4	4.9	B
	Right Turn	129	119	92.1%	5.9	0.8	A
	Subtotal	624	524	84.0%	24.8	4.3	C
Total		1,941	1,846	95.1%	25.4	3.7	C

SimTraffic Post-Processor **Medical Center / Stadium / Railyards SP EIR**
Average Results from 10 Runs **Cumulative Plus RSPU**
Volume and Delay by Movement **Pre-Event Hour**

Intersection 35 **3rd St/C St (West Sacramento)** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	12	105.5%	39.4	25.5	D
	Through	7	7	102.9%	17.6	16.1	B
	Right Turn	178	184	103.1%	6.9	1.0	A
	Subtotal	196	202	103.3%	9.1	1.4	A
SB	Left Turn	5	4	88.0%	18.7	19.1	B
	Through						
	Right Turn	26	25	95.4%	8.1	3.3	A
	Subtotal	31	29	94.2%	11.4	7.3	B
EB	Left Turn	17	14	82.4%	38.0	12.4	D
	Through	709	684	96.5%	19.5	3.8	B
	Right Turn	20	18	88.0%	9.8	4.2	A
	Subtotal	746	716	96.0%	19.6	3.6	B
WB	Left Turn	279	225	80.7%	45.9	24.3	D
	Through	587	497	84.7%	23.0	24.7	C
	Right Turn	10	12	120.0%	19.4	24.1	B
	Subtotal	876	734	83.8%	29.9	24.1	C
Total		1,849	1,682	91.0%	22.4	10.9	C

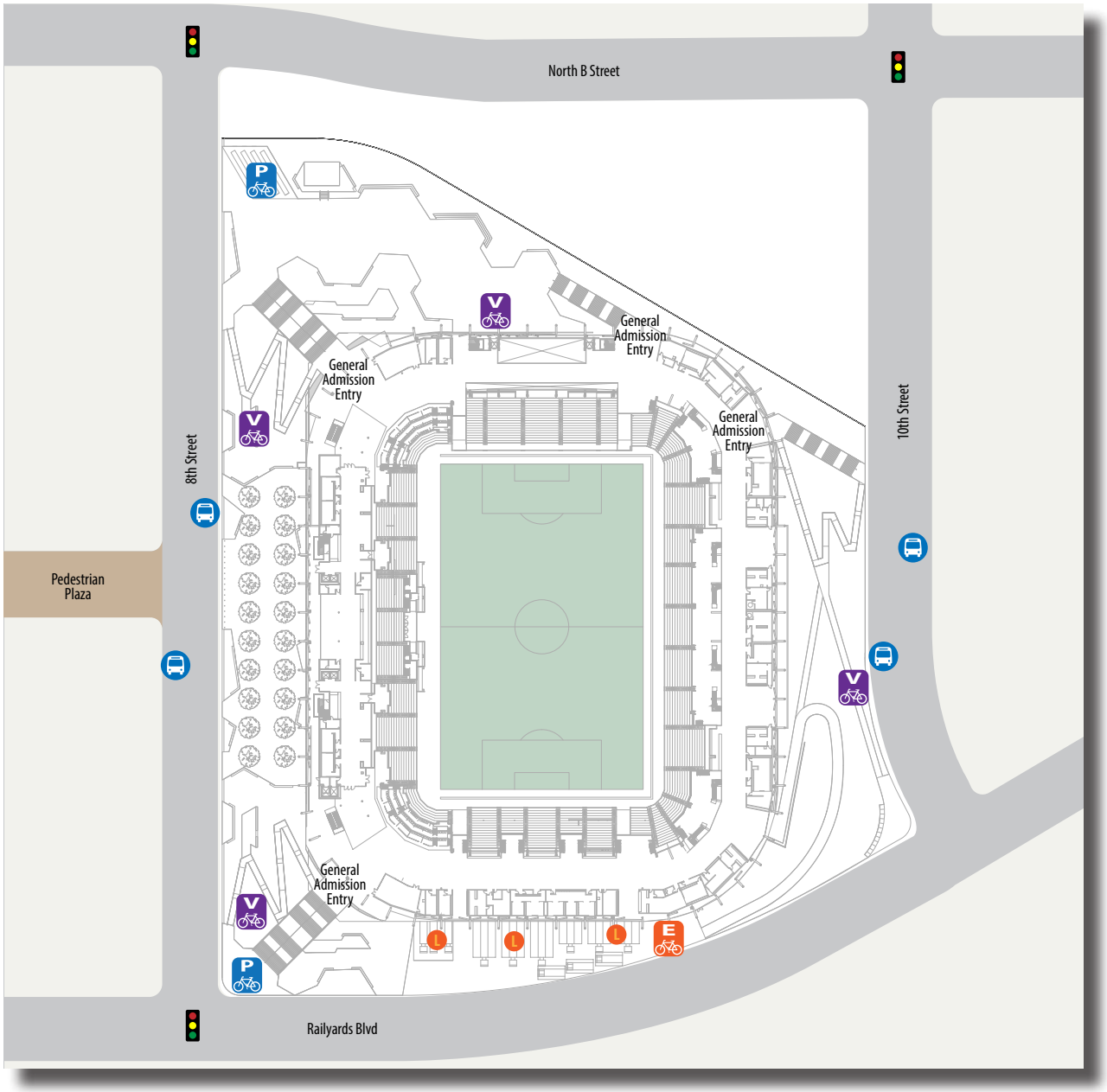
Appendix J.2

Draft Major League Soccer (MLS) Stadium Event Transportation Management Plan (TMP)

ESA

Draft Major League Soccer (MLS) Stadium Event Transportation Management Plan (TMP)

Prepared for
City of Sacramento



June 2016

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1. INTRODUCTION

TMP PURPOSE

The purpose of the Event TMP is to outline strategies to provide safe, convenient, and efficient access for all modes of travel to and from the proposed MLS Stadium. It seeks to minimize conflicts between vehicles, pedestrians, bicycles, and transit providers, while providing access to the project via each of these travel modes.

The Draft EIR analyzed an MLS Stadium that was assumed to consist of 25,000 seats. However, the initial design is now anticipated to provide seating for 19,621 attendees, which is a 21.5 percent decrease. Because the Draft EIR is conducting an environmental review for a facility with 25,000 seats, this TMP evaluates the transportation management strategies needed to accommodate this size of facility. However, in light of the opening day decrease in seating capacity, there may be certain operating conditions that could be beneficially affected by the reduction.

The TMP is intended to be a flexible document, which would be amended by the City as conditions change, and based on experience and input from additional parties, including the City, MLS Stadium operator, police/fire, and local transit agencies. It is likely that this TMP will need to be updated one or more times in response to the following:

- Changes in number of seats within MLS Stadium
- Changes in background roadway network (which would influence traffic management)
- Development of adjacent parcels (which would influence available parking and pedestrian flows)
- In response to vehicular congestion and pedestrian crowding observed during monitoring of soccer matches and other events.

ROLES AND RESPONSIBILITIES

Table 1 describes the roles and responsibilities for key agencies and entities that would play important roles in implementing the TMP.

Similar to other entertainment venues, it is expected that the MLS Stadium operator will enter into agreement(s) with various agencies and/or vendors to provide the improvements necessary to implement this Event TMP. Since the City's Police and Public Works Departments are responsible for maintaining and operating the roadway system in the immediate project vicinity, they will have responsibility for collaboratively working with the MLS Stadium operator to implement, operate, and/or oversee many of the recommended strategies contained in this TMP.

This document purposefully does not identify the specific entity which will carry out certain actions because the contractual, logistical, and other details have not yet been finalized. However, the TMP has been prepared at this time because the Draft EIR incorporates the performance standards contained herein, which must be achieved through implementation of various mitigation measures including this

TMP. In many instances, responsibilities are assigned to "the City or Stadium operator". This generalization reflects that a number of departments ranging from Police, to Public Works, to Parking may have lead responsibility. Alternatively, the responsibility could be placed on the Stadium operator or a subcontractor hired by either the City or operator for a certain task.

TABLE 1: ROLES AND RESPONSIBILITIES

Agency or Entity	Roles and Responsibilities
MLS Stadium Operator	The MLS Stadium operator (the entity responsible for the operation and maintenance of the MLS Stadium) is the project sponsor and is responsible, along with the City, for implementing the TMP and complying with its performance standards.
City of Sacramento Department of Public Works (DPW)	The City of Sacramento DPW has jurisdiction over the City's public right-of-way (ROW), traffic operations, and on street parking. It manages all surface transportation infrastructure and systems in the City, including roads, sidewalks, bicycle lanes, parking, and traffic control. Recommendations related to physical or operational changes to the ROW and/ or traffic operations or circulation have to be reviewed / approved by the DPW.
City of Sacramento Police Department (Sac PD)	The Sacramento Police Department is responsible for emergency response, preparation/implementation of traffic control plans, incident management, and coordination with the Sacramento Fire Department and the California Highway Patrol as needed.
City of Sacramento Fire Department (SFD)	The Sacramento Fire Department provides fire suppression and emergency medical services to the residents, visitors, and workers within Sacramento.
City of Sacramento Parking Services	Parking Services is a division within the DPW that manages all aspects of the City's parking assets including lots, garages, and on-street spaces.
Sacramento Regional Transit District (RT)	Sacramento RT provides transit service to the Sacramento region with a combination of light rail transit (LRT), bus, and shuttle bus routes. The LRT Green line operates along 7th Street less than ¼-mile from the proposed MLS Stadium site. Recommendations related to physical or operational changes to transit facilities or operations must be approved by RT.

REPORT ORGANIZATION

The remainder of this report consists of the following chapters, which have ordered such that discussions in later chapters build upon data and findings from earlier chapters.

- Chapter 2 (Project Description) – discusses the MLS Stadium including its location, project site plan, anticipated annual activities, and general vehicular, transit, pedestrian, and bicycle access.
- Chapter 3 (Travel Characteristics of MLS Stadium) – discusses the expected use of bicycle, pedestrian, transit, and vehicular travel modes to access the MLS Stadium during events.
- Chapter 4 (Transit Element) – discusses existing and planned transit services during MLS Stadium events.
- Chapter 5 (Bicycle Element) – discusses existing and planned bicycle facilities that may be used to access the MLS Stadium and on-site bicycle parking.
- Chapter 6 (Parking Element) – presents the anticipated parking demand and supply under near-term and long-term conditions. This chapter also presents anticipated pedestrian flows during the busiest hour before the start of an MLS Stadium soccer match.
- Chapter 7 (Traffic, Parking, and Pedestrian Management) – Due to the complex inter-relationship between arriving traffic, parking within the Railyards Specific Plan (RSP) Area, and techniques needed to manage the flow of traffic, this chapter simultaneously discusses these topics and presents recommendations.
- Chapter 8 (Performance Standards and Monitoring) – This chapter presents a set of performance standards that describe the desired level of operating standards that should be achieved during MLS Stadium soccer matches. It also discusses the mitigation monitoring plan that should be implemented once the MLS Stadium is constructed and open to ensure that standards are met.

This draft TMP purposefully does not address items such as communications and wayfinding. These topics, while clearly important, would require not yet available detailed planning/operational information for the MLS Stadium and input from agencies, the MLS Stadium operator, and individual property owners. Subsequent updates to the TMP, including a comprehensive update prior to the MLS Stadium's initial opening, will be necessary and will need to address communications and wayfinding (among a variety of other topics).

2. PROJECT DESCRIPTION

PROJECT LOCATION AND SITE PLAN

The MLS Stadium site is located in the southeasterly portion of the Railyards Specific Plan (RSP) Area. It would be bounded by the extension of Railyards Boulevard on the south, North B Street on the north, 8th Street on the west, and 10th Street on the east. The project site is illustrated on **Figure 1**.

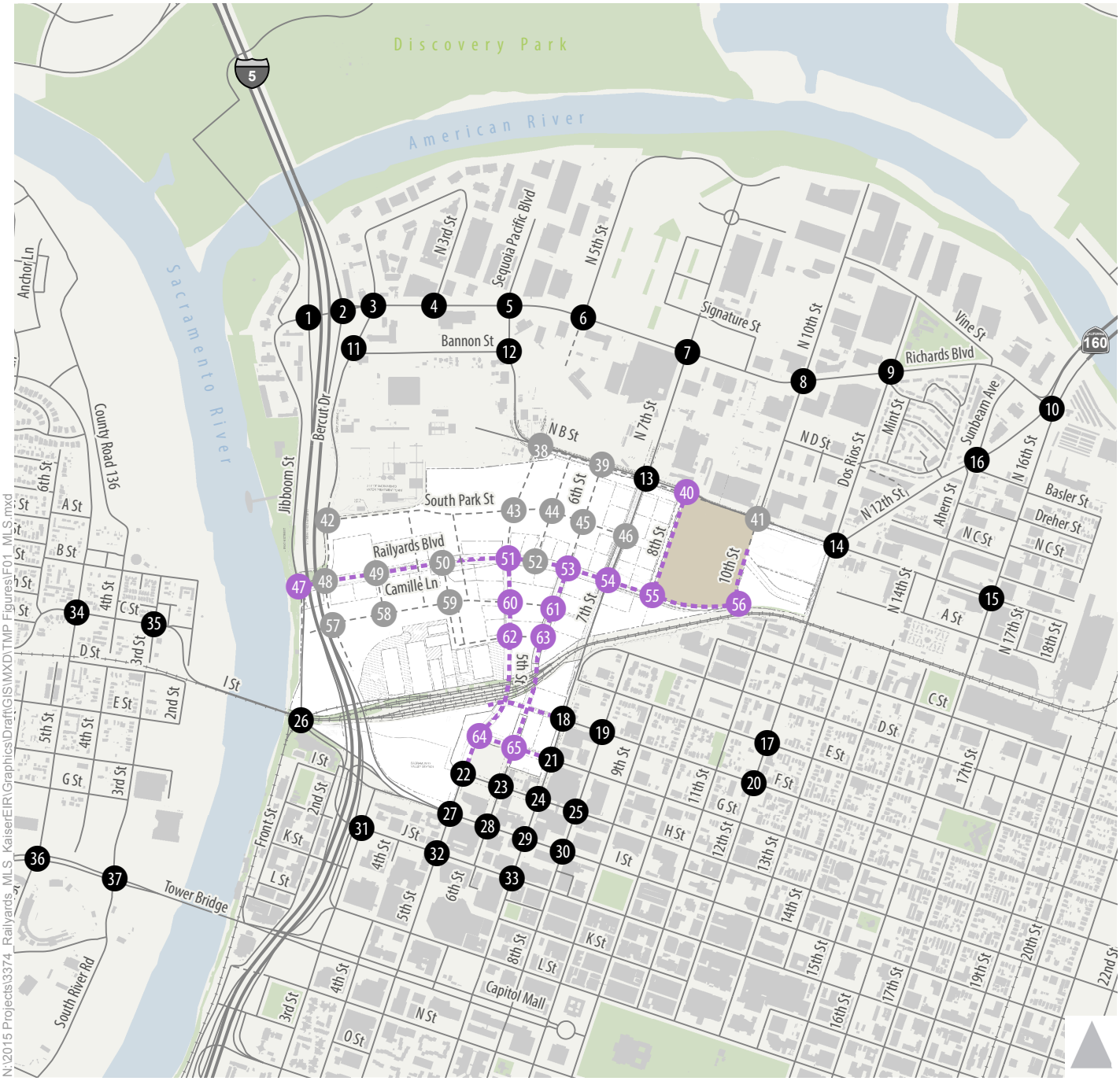
Figure 2 shows the most recent project site plan provided HNTB, the stadium architect. Key aspects of it include the following:

- The project site plan does not include any off-street parking within its boundary. As is discussed in Chapter 6, parking would initially be provided by a series of designated parking lots within the RSP Area along with additional parking to the north, south, and east. Once the properties within the RSP Area are developed, parking would be provided by various public and private garages in the RSP Area.
- The project site plan has been designed to provide on-site parking for up to 500 bicycles (see Chapter 5) as well as a bike valet.
- The MLS Stadium would include construction of a 100-foot wide Pedestrian Plaza that would extend between 7th and 8th Streets (opposite the easterly terminus of South Park Street). This plaza would be one of the primary pedestrian access points to the stadium.
- As shown on Figure 2, general admission entry points would be located in the southwest, northwest, and northeast corners of the stadium. Special entrances would be available for players, employees, and premium ticketholders. The stadium plaza would be a continuously open and traversable pedestrian space.

VEHICULAR ACCESS TO MLS STADIUM

Figure 1 shows the roadway system that would be in place under baseline (i.e., opening day) conditions. Due to properties located directly to the north and east of the MLS Stadium being under control by other property owners, Railyards Boulevard would initially terminate at 10th Street versus extending to 12th Street as is ultimately planned (with westbound-only travel being permitted from 12th Street to 10th Street). Similarly, 10th Street would terminate at the northern boundary of the stadium site versus extending to North B Street as is ultimately planned.

As the RSP Area develops, new roadways would be constructed and certain existing roadways would be widened. Refer to Figure 4.12-12 of the Draft EIR for the planned roadway network within the RSP Area. Refer to Chapters 4, 5, and 7 for detailed discussions of access to the MLS Stadium by transit, bicycle, and walking, respectively.



Study Intersections

- Baseline Plus Stadium
- Existing
- Future Intersection within RSPU

- Baseline Roadway Assumed with MLS Stadium
- Future Planned Roadway within RSPU
- Stadium

Figure 1

Project Location

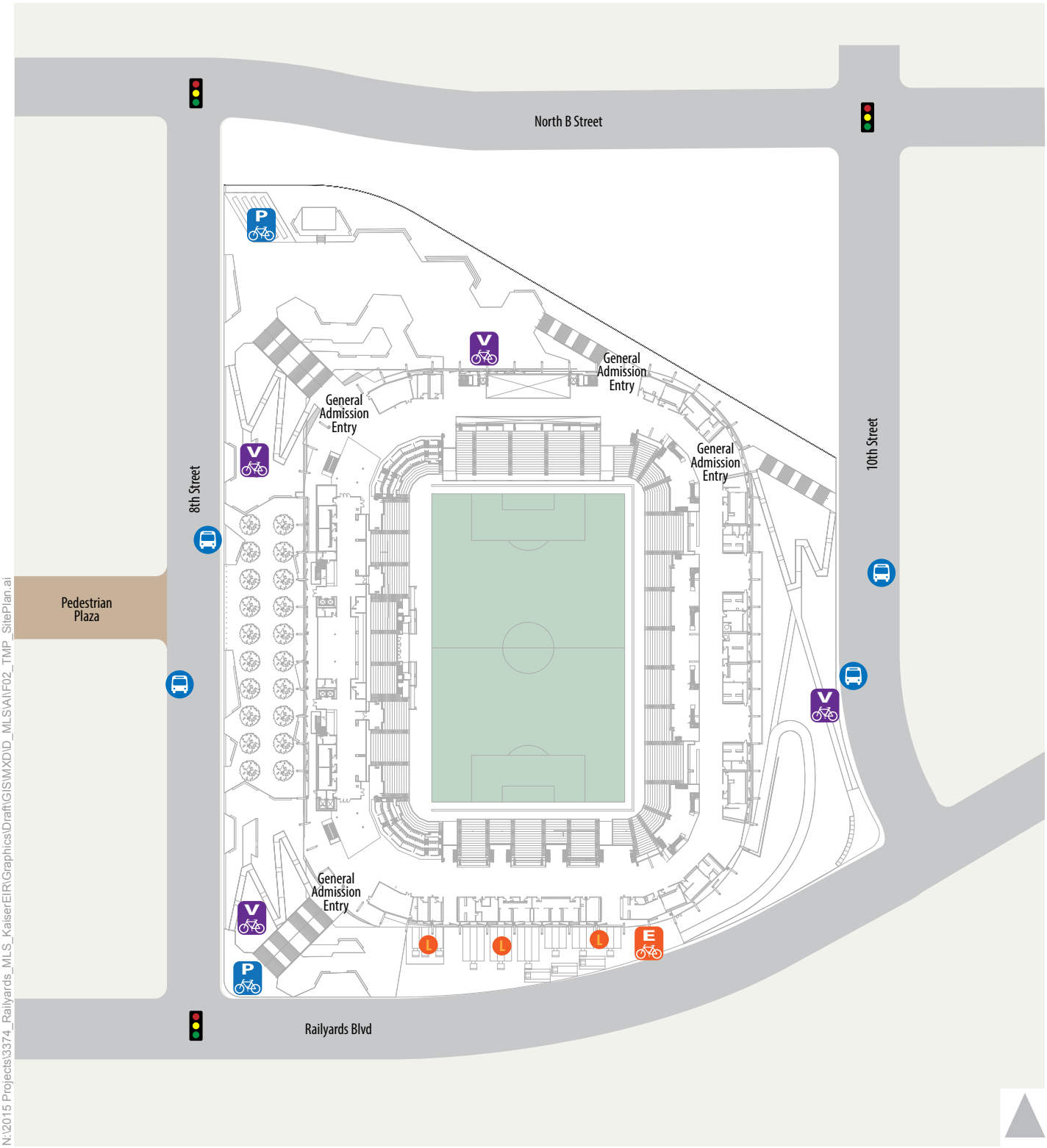


Figure 2

MLS Stadium Site Plan

STADIUM ACTIVITIES

Table 2 displays the anticipated number of annual events (and corresponding attendance) to be held at the MLS Stadium. In a given year, a total of 25 soccer matches (of various types) would be expected along with seven concerts, and five community events. An event would occur at the stadium during 10 percent of days over a typical year. The majority of events would occur on weekends. Weekday events would occur during the afternoon/evening.

TABLE 2: MLS STADIUM ESTIMATED ANNUAL EVENT ATTENDANCE

Event Type	Daily Attendance	Average Annual Events	Event Duration (days)	Total Days	Weekday 7:30 am – 5:00 pm	Weekday 5:30 pm-11:30 pm	Week-end	Annual Attendance
MLS Regular Season	25,000	17	1	17	0	2	15	425,000
MLS Special Game(s)	20,000	1	1	1	0	1	0	20,000
MLS Playoff Game(s)	25,000	1	1	1	0	0	1	25,000
CONCACAF/Cup Games	17,500	2	1	2	0	1	1	35,000
U.S. National Team Matches	25,000	1	1	1	0	0	1	25,000
Other Soccer Events	18,000	3	1	3	0	2	1	54,000
Concert/Cultural Event – Tier I	27,000[1]	2	1	2	0	0	2	54,000
Concert/Cultural Event – Tier II	18,000	5	1	5	0	0	5	90,000
Community Events	4,000	5	1	5	0	3	2	20,000
Total		**37**		**37**	**0**	**9**	**28**	**748,000**

Note:

1. A Tier 1 concert/cultural event involving highly popular touring act or other large event could attract a crowd of up to 27,000 attendees, including use of field standing or seating.

Source: Sacramento Soccer and Entertainment Holdings, Inc., 2016.

During weekday evening MLS matches, an estimated 460 employees would be present at the Stadium including police, medical, concessions, ticketing, ushers, security, and cleaning. The vast majority of these employees would arrive prior to the Pre-event peak hour.

ANALYSIS PERIODS

The Draft EIR analyzed the transportation effects of the proposed MLS Stadium for a weekday evening soccer MLS match that starts at 7:30 PM. This assumption is based on regular season 2014-2015 MLS season home game schedules for the San Jose, Los Angeles, Portland, and Seattle franchises. Of weekday games, 40 percent started at 7:30 PM, and 50 percent started at 8:00 PM. Although data from the west coast MLS teams indicated that 76 percent of all games were played on weekends, those periods were not studied because background traffic volumes within the RSP and surrounding areas were less than during the weekday Pre-event peak hour.

CONCURRENT EVENTS

An evaluation was conducted to determine the potential for soccer matches at the MLS Stadium to overlap with other sporting events in the Sacramento region. To understand the anticipated frequency of such occurrences, the 2014 and 2015 home schedules of the National Basketball Association (NBA) Sacramento Kings and AAA Sacramento Rivercats baseball team were compared against the schedule for the MLS San Jose Earthquakes. The Earthquakes' schedule was selected because a Sacramento MLS team would likely have a similar 'west coast' schedule of games and start times. Following are the key findings of this evaluation.

- In 2014, there were 12 'multi-game' days (7 Saturdays, 3 Wednesdays, 1 Friday, and 1 Sunday). Nine of the 12 days involved home games played by the San Jose Earthquakes and Sacramento Rivercats. There were four days involving home game played by the San Jose Earthquakes and Sacramento Kings (including one day that includes all three teams).

- The 2015 data were quite similar to 2014 with 11 'multi-game' days occurring most often on Saturdays and involving the San Jose Earthquakes and Sacramento Rivercats. There were three instances involving home games played by the San Jose Earthquakes and Sacramento Kings.

This data yields the following conclusion:

- A soccer match at the MLS Stadium would be most likely to overlap with a baseball game at Raley Field on a Saturday evening. Raley Field and the MLS Stadium are over one mile apart, and are not proposed to have much, if any, overlapping parking. However, they will rely on many of the same roadways, freeways, light rail/bus routes, etc. Therefore, advanced planning for such events, though rare, is necessary.

APPLICABILITY OF TMP FOR DIFFERENT EVENTS

According to Table 2, 32 of the 37 annual events are anticipated to have attendance levels of 17,500 or more persons. This TMP is recommended to be fully implemented for each of those 32 events. Implementation of the TMP is not necessary for the five (5) annual community events, provided that they attract no more than 4,000 persons per event.

The values in Table 2 represent best estimates of anticipated attendance for different event types. It is possible that some events could draw in the 5,000 to 17,000-attendee range. Should events of this size be expected to occur, implementation of certain portions of the TMP would be required. The degree to which certain TMP elements are needed would be a function of a number of factors including: type of event, anticipated attendance, weekday/weekend event, start/end time, mode split, and parking demand. For instance, while traffic control officers would likely need to be situated at some intersections, they may not be necessary at others (due to reduced parking and pedestrian demands). All events with anticipated attendance in the 5,000 to 17,000-person range will require a review of attendee travel characteristics, event start/end time, mode split, and parking demand to determine which elements of the TMP should be implemented.

3. TRAVEL CHARACTERISTICS OF MLS STADIUM

This chapter describes the anticipated travel modes to be used by MLS Stadium attendees under opening day and long-term conditions. It also discusses expected vehicular travel routes and the spatial distribution of parking utilization surrounding the stadium.

MODE SPLIT

Table 3 displays the projected travel modes for MLS Stadium attendees under opening day and year 2035 conditions. Refer to Chapter 4.12 of Draft EIR for supporting details.

TABLE 3: MLS STADIUM WEEKDAY EVENING SOCCER MATCH – TRAVEL MODE FOR ATTENDEES

Mode	Opening Day Share	Year 2035 Share
Auto	90.0%	83.0%
Light Rail	6.0%	10.0%
Bus	0.5%	1.0%
Walk	1.5%	3.0%
Bike	2%	3.0%

Source: Fehr & Peers, 2016.

VEHICULAR TRIPS AND DIRECTIONAL DISTRIBUTION

As is discussed in Chapter 4.12 of the Draft EIR, the MLS Stadium is estimated to generate approximately 7,060 inbound vehicle trips during the Weekday Pre-event peak hour (6:30 – 7:30 PM) under opening day conditions assuming a sold-out 25,000-seat soccer match.

Freeway access to the MLS Stadium site would be provided via Interstate 5 interchanges at Richards Boulevard and I Street/J Street as well as SR 160, which becomes 12th Street / 16th Street as it enters/exits Downtown Sacramento. A number of other City streets would also provide access the stadium. By comparing the Pre-event peak hour traffic volumes shown on Figure 4.12-15A and B versus 4.12-35A, B, and C, inbound vehicle trips generated by the MLS Stadium would be geographically distributed as follows (only primary routes are shown and consequently values do not sum to 100 percent):

- Southbound SR 160 at Richards Boulevard: 32 percent
- Eastbound Richards Boulevard directly east of I-5: 18 percent
- Eastbound J Street directly east of I-5: 14 percent
- Northbound 16th Street at N. B Street: 5 percent

- Southbound Jibboom Street west of I-5: 3 percent
- Eastbound I Street Bridge at Jibboom Street: 3 percent

These distribution patterns were derived based on travel behavior data collected in 2014 at Sacramento Republic FC matches played at Bonney Field at Cal Expo (including average vehicle occupancy, arrival period percentages, and cell phone data indicating trip origins/destinations. They also consider the anticipated locations of available parking located in the stadium vicinity.

Refer to Chapter 6 for specific use of parking lots/garages and on-street spaces and Chapter 7 for anticipated Pre-event peak hour pedestrian flows.

4. TRANSIT ELEMENT

EXISTING AND PROJECTED TRANSIT SERVICE

The MLS Stadium would be located less than ¼-mile from the existing LRT Green Line, which runs along 7th Street. The nearest station to the Stadium is the Richards/Township 9 station, which is the northern terminus of the Green line. The LRT Green line operates until the early evening on weekdays, not on weekends, and requires a transfer in downtown to ride the Blue or Gold lines to south, east, or northeast Sacramento.

Service to the area is also available via the LRT Blue line, which has a stop in the Alkali Flat neighborhood slightly greater than ½-mile from the MLS Stadium. Bus service in the area consists of four routes operated by Regional Transit that currently end their weekday service by 8 or 9 PM.

During a November 3, 2015 meeting with the applicant, RT, and City of Sacramento, RT officials expressed a willingness to work cooperatively with the City and the applicant to ensure that necessary light rail facilities and services would be in place by opening of the proposed MLS Stadium. Based on the outcome of that meeting, the following transit service improvements are assumed to occur:

- Under baseline conditions, a new light rail station would be constructed on the east side of 7th Street north of Railyards Boulevard. This station would be part of the Green Line service.
- Under cumulative conditions, the new light rail station on 7th Street north of Railyards Boulevard would include stops on both the east and west sides of 7th Street based on the planned double-tracking of the line. The green line service would extend northerly across the American River to serve the Natomas area and eventually Sacramento International Airport.

LRT STATION ACCESS

The RSPU roadway improvement drawings show a light rail platform to be located on the east side of 7th Street from north of Railyards Boulevard to the planned Pedestrian Plaza shown on Figure 2. As is discussed in Chapter 7, the Pedestrian Plaza would be 100 feet wide and serve as a primary ingress/egress to the MLS Stadium.

Details relating to light rail transit operations would be worked out as the MLS Stadium opening approaches. Decisions relating to number of additional trains, number of cars per train, train loading/unloading, fare payment, pedestrian wayfinding to transit, etc. would require detailed follow-up meetings with City, RT, and MLS Stadium operator staff.

Refer to Chapter 7 for a discussion of post-event bus stop locations/loading and bus staging.

5. BICYCLE ELEMENT

BICYCLE PARKING

Table 3 indicates that two percent of MLS game attendees are expected to initially ride a bike to the stadium under baseline conditions. This equates to 500 bicyclists. It is important to note that this mode split applies only to weekday evening soccer matches. During weekends, west coast MLS soccer matches often begin in the afternoon, meaning that pre- and post-event bicycle travel would occur during daylight hours, which could affect mode choice.

As shown on Figure 2, parking within the MLS Stadium plaza area would include short-term racks, long-term employee parking, and bike valet service. The current design drawings allow for on-site parking for up to 500 bicycles. The majority of bicycle parking would be located in the southwest or northwest corners of the stadium site. The southwest corner was chosen because it can be easily accessed from the Class I path located on the south side of Railyards Boulevard east of 7th Street. The northwest corner was selected to capture bicyclists as they enter from North B Street to discourage further bicycle travel into the plaza area. Overflow bike parking in adjacent, vacant lots is also being studied.

BICYCLE ACCESS

Under opening day conditions (assuming the remainder of the RSPU is not developed), bicyclists would be able to access the MLS Stadium as follows:

- From the south: A 10-foot sidewalk is present on 7th Street under the UPRR tracks and extending further south. The extensions and impending openings of 5th Street and 6th Street from H Street to Railyards Boulevard will include on-street bicycle lanes. For outbound bicycle trips returning to downtown Sacramento, a southbound-only Class II (on-street) bike lane is present on 12th Street south of North B Street.

- From the east: Class II (on-street) bike lanes are present on North B Street west of 12th Street.

- From the west: bicyclists may exit the American River Bike Trail at the Railyards Boulevard/Jibboom Street intersection, then ride on a Class II bike lane on Railyards Boulevard to the MLS Stadium.

- From the north: although class II bike lanes are present along portions of Richards Boulevard, direct north-south bicycle facilities (to access the MLS Stadium) are not present. The segment of North 7th Street north of North B Street features light rail tracks on both sides of the street, which may not be conductive to on-street bicycle travel. Bicyclists may instead wish to use the parallel segment of 10th Street between North B Street and Richards Boulevard, which has one lane in each direction and is lightly traveled or Sequoia Street to Bannon Street. However, there are no dedicated bicycle facilities on these streets except on Sequoia Street.

Under future conditions, the bicycle system within the RSP Area and on nearby streets will be much expanded and improved. Refer to Figure 2-14 of the Draft EIR for the RSPU bicycle system. Key enhancements would include:

- A Class IV protected bikeway (two-way cycle track) on 12th Street from south of Richards Boulevard into downtown Sacramento. A bike path connection between this cycle track and the Class I path along Railyards Boulevard (east of 7th Street).
- In the future, bicycling would be prohibited along 7th Street under the UPRR bridge due to the conversion of this facility to consist of a vehicle-only (inside) lane and a shared vehicle/LRT (outside) lane in each direction. The parallel segment of 6th Street would be upgraded to consist of a two-way cycle track from G Street to Camille Lane. This facility would provide a connection to the RSPU Class I system.

6. PARKING ELEMENT

EXPECTED NEAR-TERM PARKING DEMAND AND PROPOSED SUPPLY

Chapter 4.12 of the Draft EIR contained the opening day parking demand for the proposed MLS Stadium was estimated for a sold-out 25,000-person MLS match. As noted earlier, current plans for the MLS Stadium applicant team call for an opening day capacity of 19,621 persons, which equates to a 21.5 percent reduction in parking demand. The following estimates and assumptions were used to estimate that a 25,000-person MLS Stadium soccer match would have a parking demand of approximately 10,100 spaces:

- 90 percent of attendees travel by vehicle, with the remaining 10 percent traveling by light rail, bus, bicycle, or walking.
- An average vehicle occupancy of 2.23 based on Sacramento Republic FC observations.
- All employees are assumed to park in remote lots and be shuttled to the Stadium.

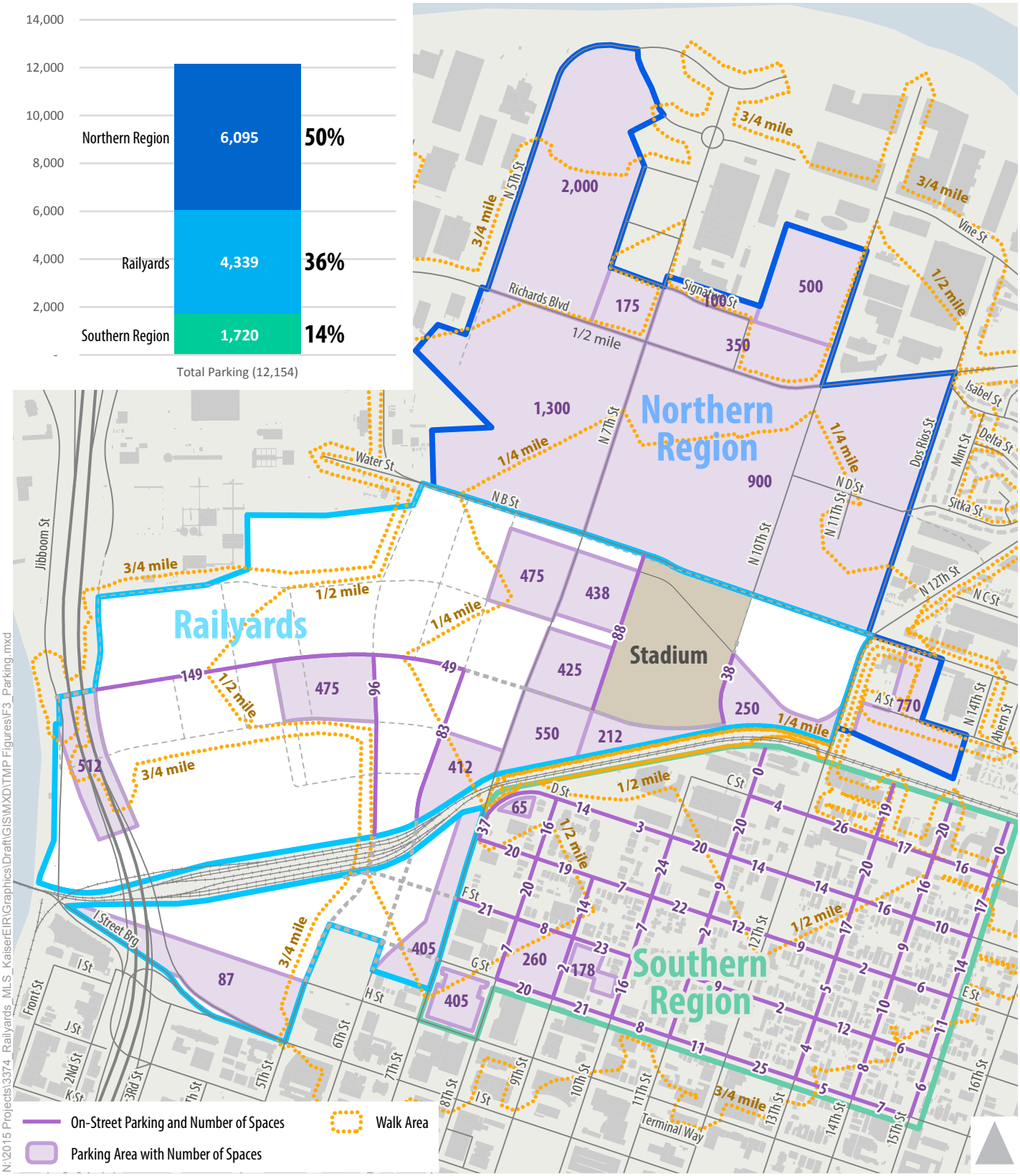
To assess available parking in the Stadium vicinity, the following evaluations were performed:

- Obtained the proposed supply of parking to be provided on vacant lots within the RSP Area (as proposed by the Stadium applicant).
- Conducted field observations to measure available public parking in garages and on-street south of the UPRR tracks.
- Estimated the amount of available parking on vacant and underutilized parcels located north of the RSP (as proposed by the Stadium applicant).

Figure 3 on the following page (reproduced from Figure 4.12-32 of the Draft EIR) shows that there are a total of more than 12,000 planned, available parking spaces in the vicinity of the proposed Stadium. Figure 4.12-33 of the Draft EIR shows that there would be over 10,875 parking spaces located within a ¾-mile or less walk of the proposed Stadium. In summary, an adequate supply of parking is proposed to accommodate a sold-out 25,000-person soccer match under baseline conditions.

During the Pre-event peak hour, MLS attendees arriving by vehicle are anticipated to park in the following geographic locations based on the proposed supply of parking and origin of trips. Note that these values sum to the project's Pre-Event peak hour trip generation, and not the total demand for parking.

- North of the RSP: 3,294 vehicles (47 percent)
- Within RSP: 2,775 vehicles (39 percent)
- South of RSP (south of UPRR tracks): 994 vehicles (14 percent)



1. Available parking in existing public/private lots/garages and on-street based on field observations conducted by Fehr & Peers between 6:30 and 7:30 PM on weekdays in December 2015.
2. Walk distances based on street network connectivity.
3. Available parking on designated vacant parcels in the RSPU based on acreage and assumption of 125 spaces per acre.
4. Available parking north of RSPU based on properties targeted for potential parking, and subjected to aerial imagery inspection of portion of property that is vacant. Unit value of 125 spaces per acre of vacant property assumed.

Figure 3

Available Parking in Vicinity of Proposed MLS Stadium

Although 4,000 parking spaces would be available within the RSP Area, the expected level of travel to those lots is less than this for two reasons. First, some of this parking would already be occupied by attendees arriving prior to the beginning of the Pre-event peak hour (any parking already occupied prior to the Pre-event peak hour is assumed to be attendees since this Baseline Plus MLS Stadium scenario assumed no retail or other development within the RSPU that would require parking). Second, some of the parking would be located more than one half mile from the proposed MLS Stadium. Other lots north of the RSP Area would have availability and be a shorter walk distance.

EXPECTED LONG-TERM PARKING DEMAND AND PROPOSED SUPPLY

According to Table 3, the non-auto mode split of MLS Stadium attendees is expected to increase in the future as a result of additional transit service expansions and construction of residential and non-residential projects in the MLS Stadium vicinity. As a result, the parking demand would be expected to decrease by about eight percent, thereby resulting in a peak parking demand of about 9,300 spaces.

Figure 4.12-34 of the Draft EIR displays the estimated amount of parking that is expected to be available within the RSP Area under RSPU buildout conditions for an MLS match. As the footnotes in this figure indicate, the available parking is based on vacant parking (during a weekend or weekday evening) that would otherwise be used by offices. It also includes six public parking garages. As shown, over 11,200 spaces are estimated to be available (excluding any spaces within the KP Medical Center). Therefore, an adequate supply of parking is expected to be available for a sold-out 25,000-person soccer match under future conditions.

PARKING MANAGEMENT STRATEGIES

Some parking lots within the RSP Area would be located in close proximity to the MLS Stadium and therefore would have unique ingress/egress challenges during events. Chapter 7 discusses how these parking lots would be accessed and managed.

A parking reservation and wayfinding system should be developed as the MLS Stadium nears an opening date. Development of these types of detail (e.g., premium ticketholder parking, real-time parking availability, etc.) is premature at this time due to various uncertainties such as precise locations/amounts of parking to be provided north of the RSP Area. However, the general wayfinding premise is to encourage attendees who “live to the north to park to the north of the MLS Stadium, and so forth”. This avoids unnecessary mixing of traffic and high traffic flows on streets near the MLS Stadium prior to and after events. Refer to Chapter 7 for details.

7. TRAFFIC, PARKING, AND PEDESTRIAN MANAGEMENT

An integrated approach for managing vehicular traffic, pedestrians, transit, and parking is necessary within the MLS Stadium vicinity. However, prior to presenting the overall recommended strategy, some information relating to recommended roadway infrastructure upgrades (from the Draft EIR) and pedestrian flows are presented.

A series of meetings were held in April 2016 with the MLS Stadium operator and architect, Sacramento Fire and Police Departments, City of Sacramento Public Works, and the EIR consulting team to discuss strategies for leading with large volumes of pedestrians, parking in close proximity to the stadium, transit vehicles, and other special-event conditions. The recommendations contained in this chapter are derived from those meetings, and subsequent technical analysis.

OPENING DAY ROADWAY INFRASTRUCTURE REQUIREMENTS

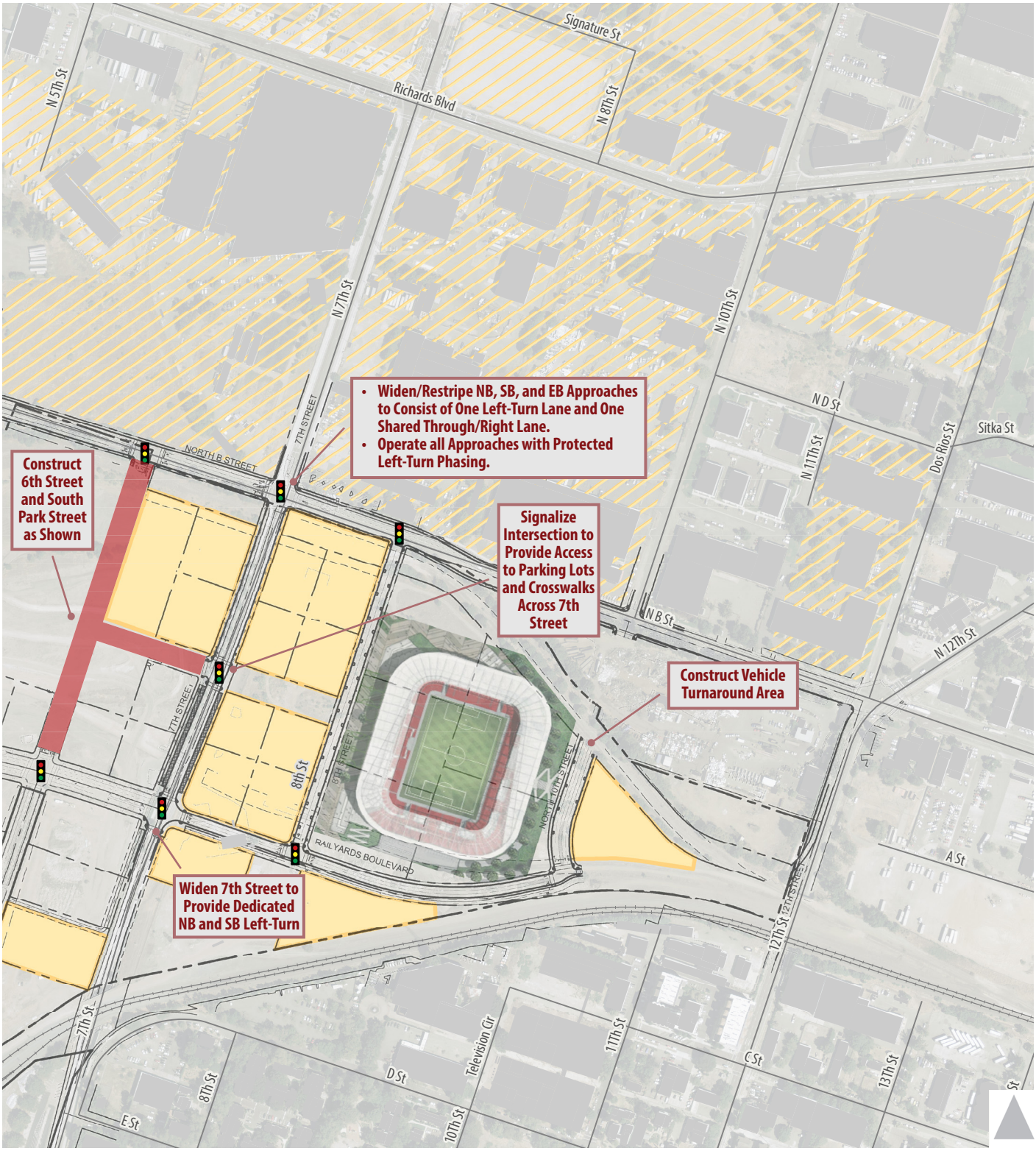
Under baseline plus MLS Stadium conditions without any mitigation measures in place, severe traffic congestion and gridlock would occur during the Pre-event peak hour. To address these significant impacts, a series of mitigation measures were recommended in the Draft EIR (see Impact 4.12-1 and Mitigation Measures 4.12-1(d)).

Figure 4 on the following page (reproduced from Figure 4.12-45 of the Draft EIR) shows the recommended (roadway-related only) mitigation measures. They consist of extending 6th Street from North B Street to Railyards Boulevard, extending South Park Street from 6th Street to 7th Street, installing traffic signals at several intersections in the stadium vicinity, modifying the 7th Street/Railyards Boulevard, 7th Street/North B Street, and 12th Street/North B Street intersections to increase their capacity. However, to operate the entire system in an efficient manner, management of the heavy pedestrian flows and parking lot ingress/egress points are also necessary to complement the infrastructure improvements.

PEDESTRIAN FLOWS

Figure 4.12-36 of the Draft EIR showed the pedestrian flows for the Pre-event peak hour prior to a sold-out 25,000-person MLS soccer match along sidewalks within the RSP Area and streets to the north, east, and south. These estimates were based on the project's vehicular trip generation and expected use of parking. They also considered primary walk trips from origins outside of the RSP Area as well as walk trips after attendees exit the 7th/Railyards light rail station. These forecasts assumed free-flow pedestrian movement, and no proactive management of flows.

The pedestrian LOS results (shown in Tables 4.12-34 and 4.12-35 of the Draft EIR) for sidewalks and crosswalks that would be used to a significant degree by MLS Stadium attendees indicated the need for expanded pedestrian facilities and/or effective management of large pedestrian flows.



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Surface Parking Lot within RSPU to be Available for Attendee Parking

Properties North of RSPU Anticipated to be Available for Attendee Parking

Signalized Intersection

Figure 4

Proposed Mitigation Measures (Roadway-Related Only) for MLS Stadium

To address the heavy pedestrian flows and minimize conflicts with vehicles, the following recommendations were devised for Pre-Event conditions:

- Direct pedestrian movements east of 7th Street either on Railyards Boulevard (north side) toward 8th Street or easterly along the Pedestrian Plaza.

- Place pedestrian barriers at strategic locations to prevent pedestrian movements that would otherwise occur on sidewalks of insufficient width or would create conflicts with vehicles entering parking lots.

- All new streets adjacent to the MLS Stadium would have sidewalk widths of 16 feet. The existing sidewalk on 7th Street would be widened to 16 feet.

- Widen all crosswalks at the 7th Street/Railyards Boulevard, 7th Street/South Park Street, and 7th Street/North B Street intersections to 20 feet.

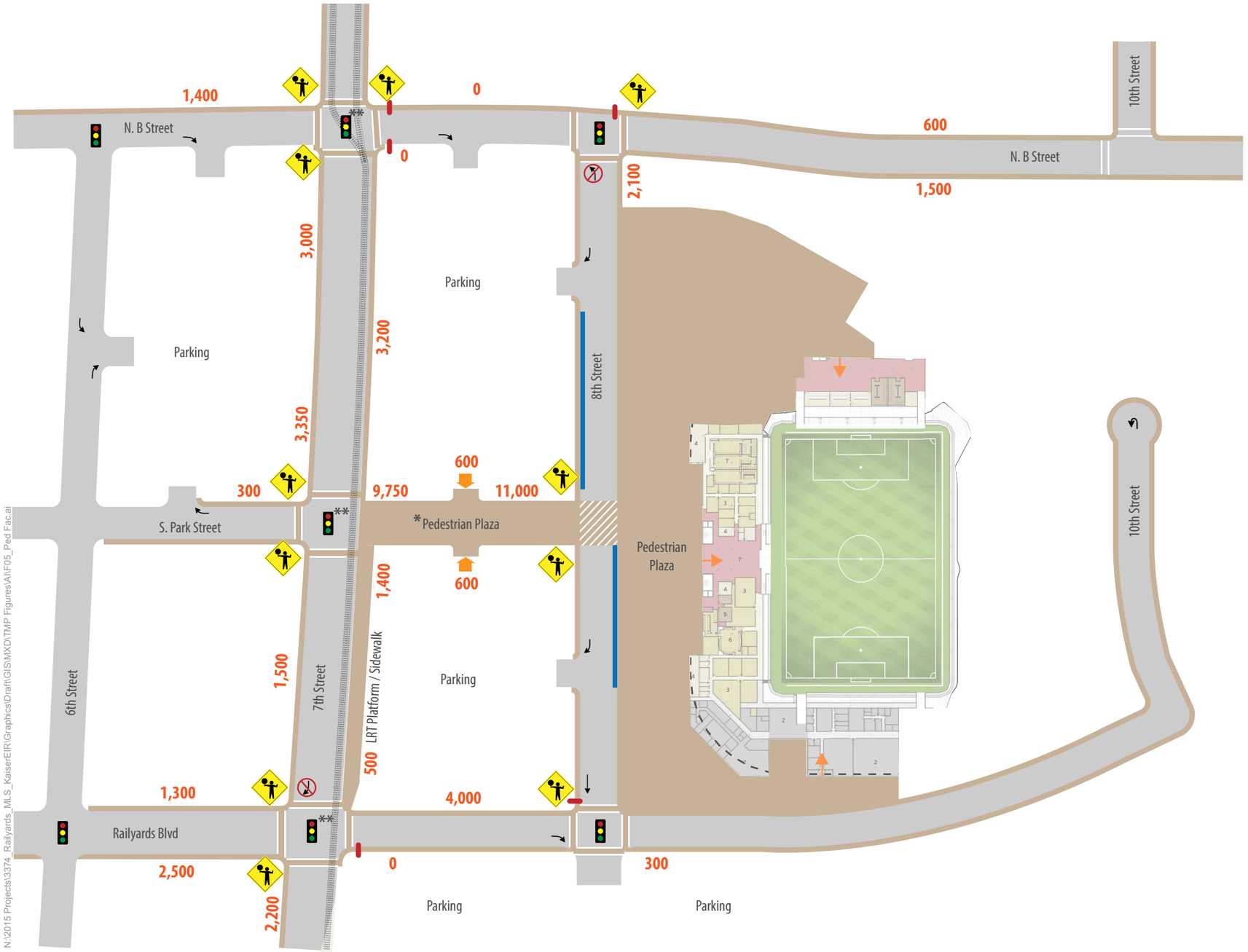
- Operate all crosswalks at the 7th Street/Railyards Boulevard, 7th Street/South Park Street, and 7th Street/North B Street intersections with a 30 second pedestrian WALK interval during the Pre-Event peak hour.

- Place traffic control officers (TCOs) at the 'upstream' corners of key intersections along 7th Street, 8th Street, Railyards Boulevard, and North B Street. The TCOs would use a combination of techniques (barricades, stanchions with retractable belts/ropes) to manage pedestrian flows approaching and across crosswalks. The barricades may be positioned on approaches to the busiest intersection corners to 'queue pedestrians', thereby minimizing the likelihood that they spill onto the adjacent street.

Figure 5 on the following page (reproduced from Figure 4.12-46 of the Draft EIR) shows the recommended pedestrian barriers, and the resulting Pre-Event peak hour pedestrian flows.

The pedestrian demand at all crosswalks at the three intersections listed above would correspond to LOS D or better conditions (i.e., the design goal identified in the Draft EIR for pedestrian facilities) with the above recommendations in place.

The end of this chapter includes a focused discussion on the anticipated use of sidewalks and crosswalks along North 7th Street north of North B Street.



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Notes:
1. Based on 25,000-person MLS soccer match (70% arrive during pre-event peak hour).
2. Values rounded to nearest fifty persons.
3. Recommended sidewalk width considers future building (ie. need to account for shy distance) at back of sidewalk and no obstructions within sidewalk.
4. Map not to scale.

*
Minimum 30 feet of plaza recommended to remain clear and unobstructed for pedestrian travel.

**
Operate traffic signals with extended walk intervals on all approaches.

Figure 5

Pedestrian Volumes During Pre Event Peak Hour - Baseline Plus MLS Stadium Conditions

TRAFFIC, PARKING, AND PEDESTRIAN MANAGEMENT DURING PRE-EVENT PEAK HOUR

Figure 6 (reproduced from Figure 4.12-47 of the Draft EIR) shows the recommended opening day Pre-event peak hour management plan to accommodate traffic, parking, and pedestrians in the MLS Stadium vicinity. This figure shows recommended driveway openings (and permitted turn movements) to adjacent parking lots. As shown, direct parking lot access is not recommended along 7th Street so as to minimize traffic flows on this important roadway. This figure also shows the placement of fences along the boundaries of these parking lots to focus pedestrian ingress/egress from them to strategic locations. This helps avoid introducing conflicts between pedestrian movements and arriving traffic to parking lots.

Figure 7 (reproduced from Figure 4.12-48 of the Draft EIR) shows vehicular routing to parking lots within the RSP Area under opening day conditions. This figure indicates that right-turn movements from southbound 7th Street onto westbound Railyards Boulevard would be prohibited so as to minimize traffic flows using this roadway to access parking west of 7th Street. Instead, signage would be deployed on the 7th Street and North B Street approaches indicating that motorists should continue on North B Street to 6th Street.

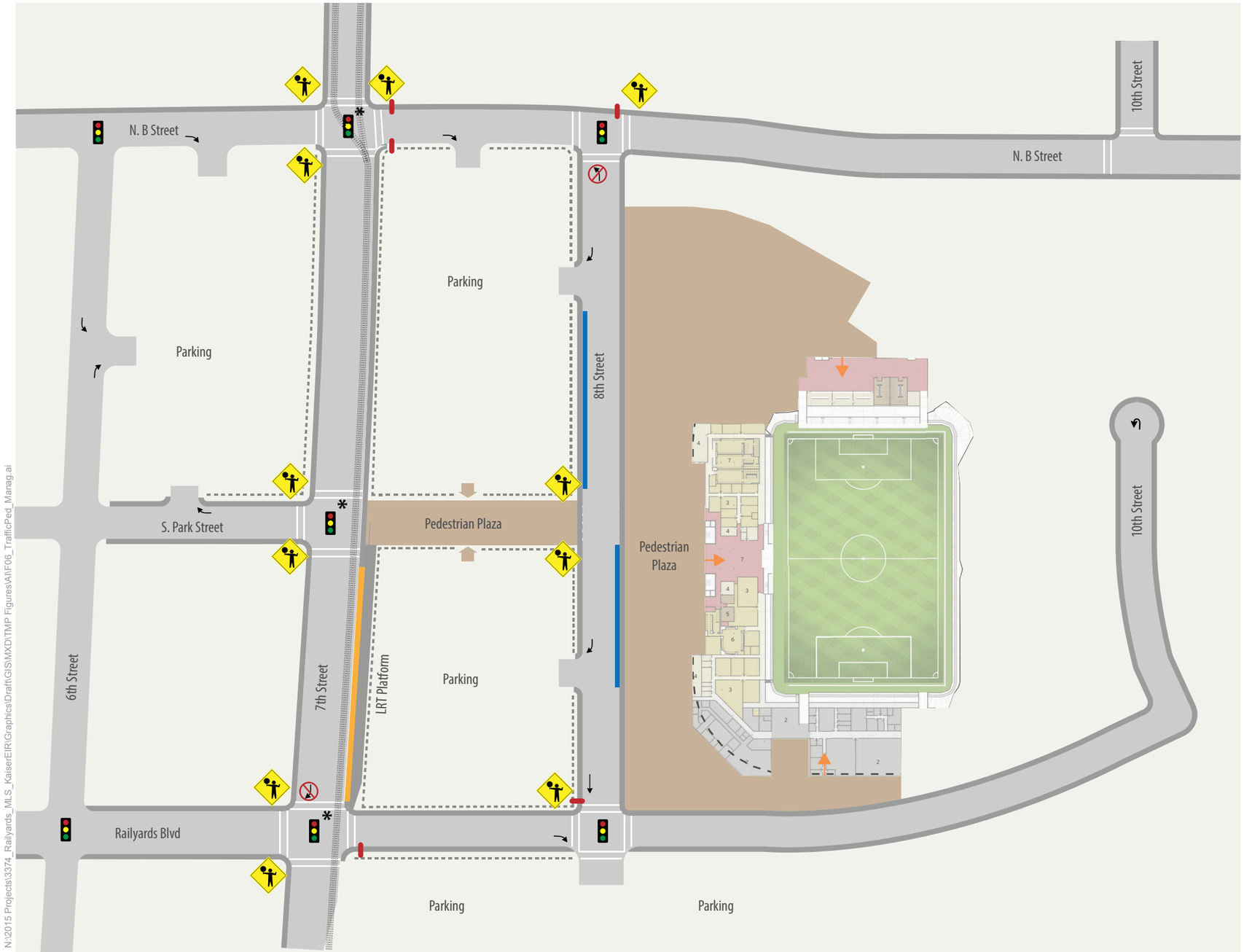
Figure 8 (reproduced from Figure 4.12-49 of the Draft EIR) shows vehicular routing for drop-offs to the MLS Stadium under opening day conditions. Buses, paratransit, limos, and ridesharing providers would be permitted to drop off passengers on 8th Street adjacent to the MLS Stadium. It is recommended that the project site plan incorporate the recommended pick-up/drop-off locations shown on 8th Street because their locations minimize conflicts with pedestrians and parking lot driveway access.

Opportunities for drop-off are also possible along 10th Street. However, northbound left-turns from 8th Street onto westbound North B Street would be prohibited so as to keep vehicles that just dropped off passengers from using 7th Street. They may instead use portions of 10th Street or 12th Street to reach their destinations.

TRAFFIC, PARKING, AND PEDESTRIAN MANAGEMENT DURING POST-EVENT PEAK HOUR

Figure 9 (reproduced from Figure 4.12-50 of the Draft EIR) shows the recommended opening day Post-event peak hour management plan to accommodate traffic, parking, and pedestrians in the MLS Stadium vicinity. Key aspects of it include the following:

- Pedestrian Flows: At the conclusion of the soccer match, large numbers of pedestrians would travel in a primarily westerly direction from the stadium. Temporary barricades would be placed as shown on Figure 9 to direct these flows either toward the Pedestrian Plaza, Railyards Boulevard (north side), or North B Street. Similar to Pre-event conditions, TCOs would be placed in strategic locations at certain intersection to manage pedestrian flows. In addition, extended pedestrian WALK intervals would be in operation at signalized intersections as shown on Figure 9 to accommodate heavy pedestrian flows.



- Traffic Signal
- Parking Lot Ingress
- Prohibited Turn Movement
- Traffic Control Officer(s) in Quadrants/Areas Shown
- Barriers Prohibiting Pedestrians
- Drop-Off Area (Buses, Taxis, Uber, Paratransit, etc.)
- Fence Around Parking Lots

* Operate traffic signals with extended pedestrian walk times on all approaches

Figure 6

Recommended Traffic and Pedestrian Management During Pre-Event Peak Hour - Baseline Plus MLS Stadium Conditions

Figure 7

Vehicle Routing to Parking
During Pre-Event Peak Hour -
Baseline Plus MLS Stadium Conditions

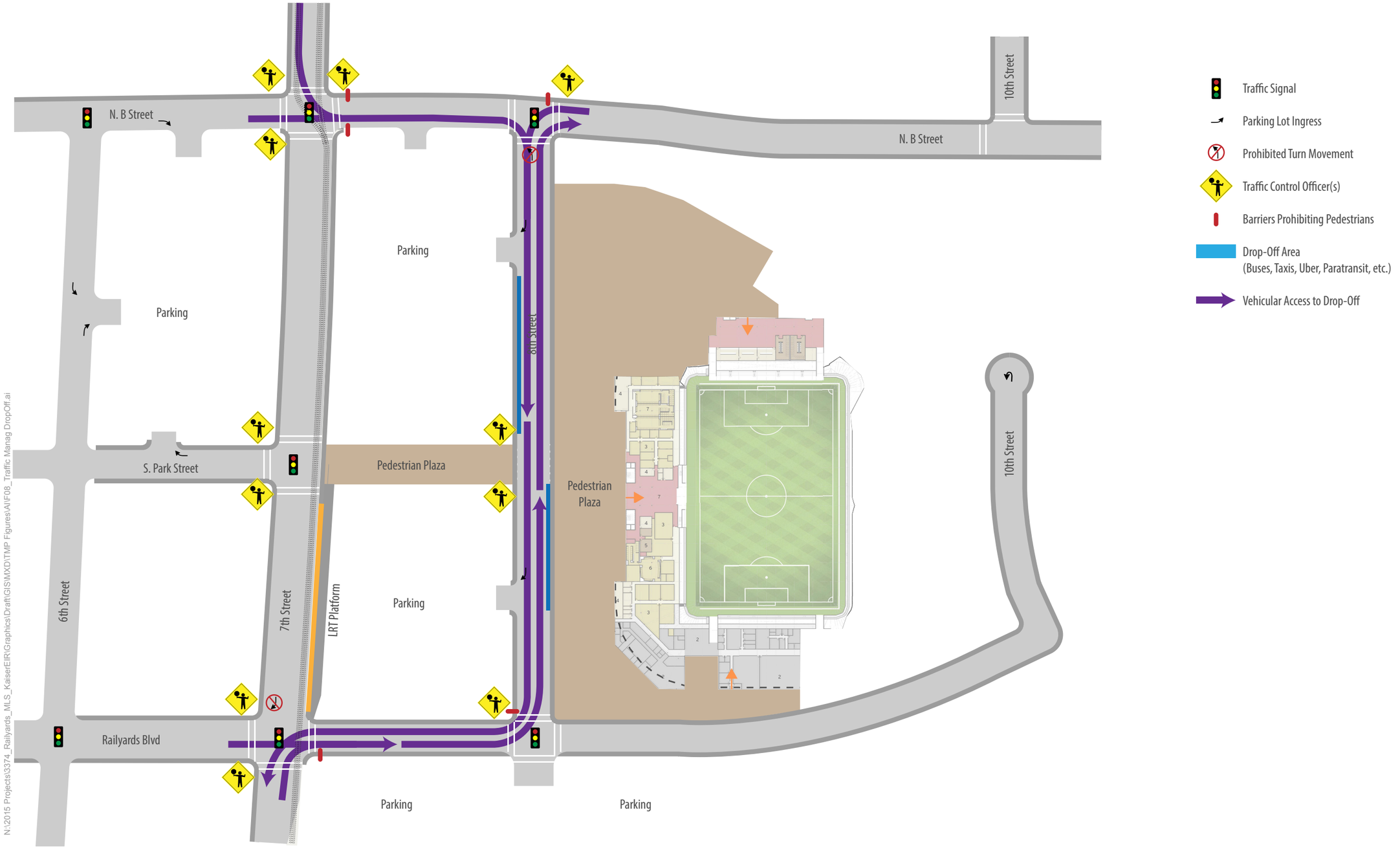


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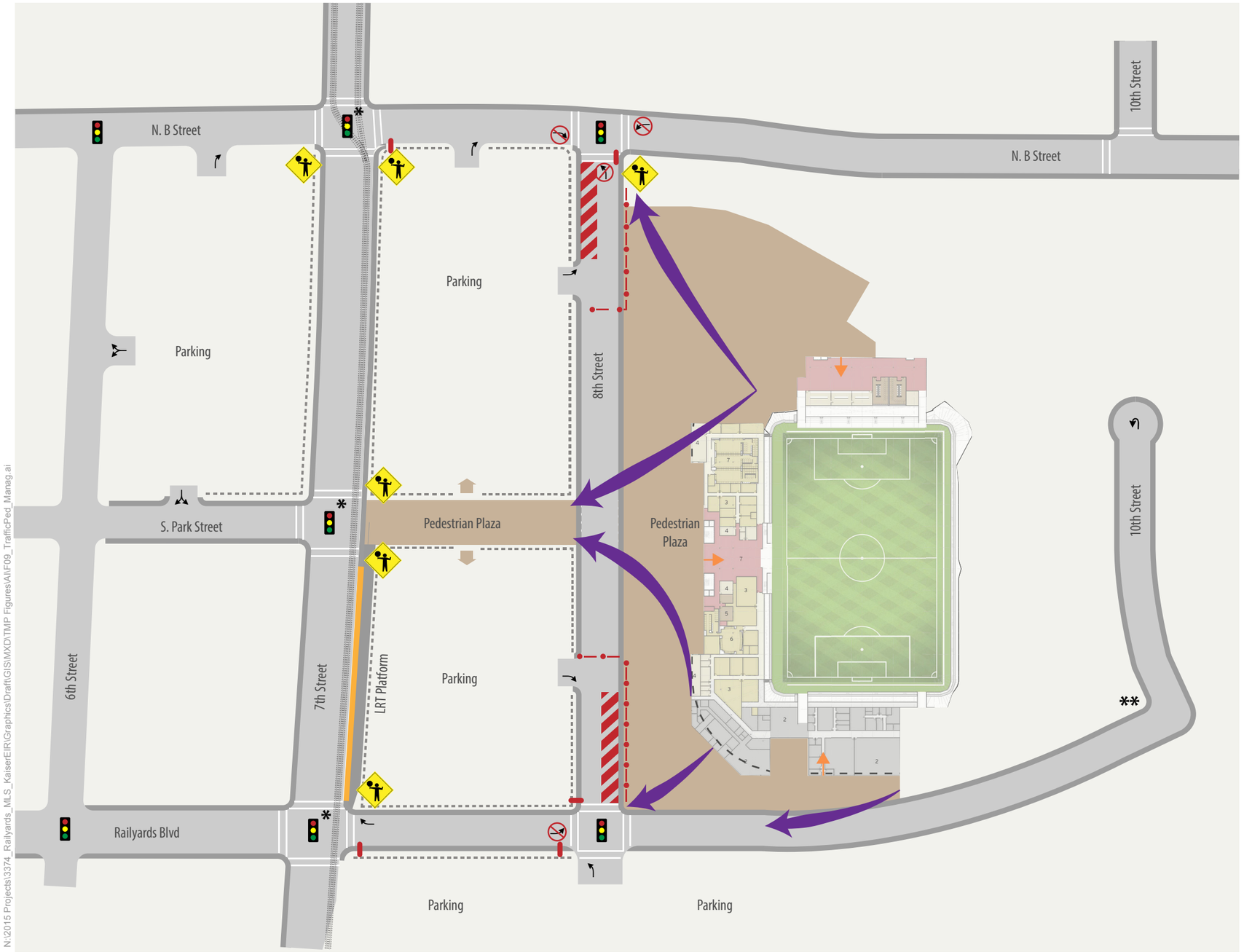
Figure 8

Vehicle Routing for Drop-Offs
During Pre-Event Peak Hour -
Baseline Plus MLS Stadium Conditions



- Traffic Signal
- Parking Lot Ingress
- Prohibited Turn Movement
- Traffic Control Officer(s) in Quadrants/Areas Shown
- Barriers Prohibiting Pedestrians
- Street Closure
- Primary Post-Event Pedestrian Flow
- Fence Around Parking Lots
- Temporary Barricades to Prohibit Pedestrians

* Operate traffic signals with extended pedestrian walk times on all approaches

** Railyards Blvd/10th Street may be used as staging area for pick-up vehicles until 8th Street reopens to vehicular traffic

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Figure 9

Recommended Traffic and Pedestrian Management During Post-Event Peak Hour - Baseline Plus MLS Stadium Conditions

- Traffic and Parking Management: Due to the volume of pedestrian traffic, it would be necessary to close 8th Street to inbound vehicular traffic for 15 to 30 minutes prior to the conclusion of the soccer match until such time that pedestrians flow subside. This means that any type of pick-up activity along 8th Street would need to occur outside of this time period. As noted on Figure 9, pick-up vehicles may stage along portions of 10th Street, though it is important for emergency response that 10th Street remain free-flow. This figure shows that the two parking lots situated directly west of 8th Street would be emptied onto 8th Street through a series of barricades and partial street closures. The type of barricades to be placed along 8th Street should be able to be removed quickly in the event an emergency vehicle needs to pass through.

USE OF PEDESTRIAN FACILITIES ON NORTH 7TH STREET NORTH OF NORTH B STREET

This section describes a particular area of focus with regard to adequacy of pedestrian facilities versus their projected level of use. Impact 4.12-6 of the Draft EIR identifies a pedestrian impact on the North 7th Street sidewalk north of North B Street and crosswalks at the Richards Boulevard/N 7th Street intersection during MLS soccer matches. The sidewalks located on both sides of North 7th Street from North B Street to Richards Boulevard would operate at LOS F based on their five-foot widths (less physical obstructions) and projected pedestrian demand (over 5,000 total pedestrians during the Pre-event peak hour).

As part of the Draft EIR technical analysis, several potential mitigation options were identified including widened sidewalks, a private shuttle to transport attendees, special-event LRT train service, a dedicated travel lane for pedestrians, and reduced parking supply north of the RSP Area. For a variety of reasons, none of these options were deemed feasible at this time. Therefore, Mitigation Measure 4.12-6 provides language (including reference to this part of the Event TMP) to ensure that solutions are identified and implemented to provide a safe flow of pedestrians on North 7th Street north of North B Street during the Pre-Event and Post-Event peak hours. As subsequent versions of the Event TMP are prepared, more detailed evaluation of this topic will be performed and documented.

So as to avoid causing pedestrians to walk within North 7th Street, a variety of measures were identified including, but may not be limited to: (1) crosswalk and sidewalk widening, (2) temporary signal timing modifications, (3) shuttle bus operations, (4) RT light rail train special event service, (5) use of traffic control officers, potentially combined with use of temporary safety barriers, to monitor and manage pedestrian flows, and (6) targeted and/or reduced parking supplies north of North B Street.

Details of the measures being considered are described below, though it is noted that additional options beyond these may also be identified over time.

- Additional Parking Within RSP Area – By increasing the supply of parking within the RSP Area under near-term conditions, it would be possible for greater numbers of attendees to use facilities such as Railyards Boulevard and 7th Street within the RSP Area, which are designed with wide sidewalks to carry substantial volumes of pedestrians. As a consequence of this additional parking and redistributed pedestrian flows, usage of the areas north of North B Street for parking may be reduced, which would help address issues along this corridor.

- Widen Sidewalks – Sidewalk widening, where feasible, would increase the available walk space for future pedestrians travelling from the Richards Boulevard corridor to North B Street. A lack of right-of-way and presence of numerous developed adjacent properties could require property acquisition(s), which would be difficult, bringing into question the feasibility of this potential mitigation in some locations. Nevertheless, the City has the authority to condition projects that request discretionary grading or building permits (to provide surface parking) to bring sidewalks into compliance with current City standards adjacent to the property.

- Operate Shuttle – A shuttle could transport MLS attendees from temporary stops on Richards Boulevard and along North 7th Street to the Stadium and back. Given the magnitude of the pedestrian volume decrease that would be necessary to achieve LOS D conditions, a substantial (i.e., likely over 25) number of shuttle buses would be necessary. They would also be required to stop in a travel lane that has a mixed-flow light rail line. Lastly, congestion during post-event conditions may result in few riders using the shuttles after learning that it may be quicker and cheaper to walk to their vehicles than wait for a shuttle bus.

- Coordinate with Regional Transit to Operate Special Event-Related LRT Service – During the pre-event and post-event periods, a light rail train could operate continuously between the Township 9/Richards Boulevard station and the proposed station on 7th Street north of Railyards Boulevard to transport passengers to/from the MLS Stadium. The ride would take two to three minutes in each direction. Coupled with the time to load and unload passengers, it is possible that a single train could operate on 10-minute headways.

- Reduce River District Parking Supply – Reducing the number of available parking spaces north of North B Street would reduce pedestrian volumes along North 7th Street. Most of the properties that could potentially provide off-street parking are eligible to obtain the required permits from the City and offer their properties for game day parking.

Each of the above options was discussed by the City's Fire, Police, and Public Works Departments, and the consulting team. It was concluded that further evaluations of these and other improvement options should continue and be documented in a subsequent update to the TMP. With respect to pedestrian facilities along North 7th Street north of North B Street, Mitigation Measure 4.12-1 states that the identified measures shall accomplish their intended purpose, subject to the review and approval of the City Traffic Engineer prior to the issuance of the Certificate of Occupancy for the proposed Stadium. Further, Chapter 8 includes a Performance Standard, whereby event-related pedestrian flows do not cause spillovers onto public streets that have moving vehicles, such as North 7th Street.

8. PERFORMANCE STANDARDS AND MONITORING

This chapter presents the Performance Standards, for which the project operations will be measured against. These Performance Standards are incorporated into Mitigation Measure 4.12-1. This chapter also describes the monitoring methods to be undertaken during the first year of stadium operations.

PERFORMANCE STANDARDS

This TMP includes various Performance Standards that must be met. Once the project is in operation and initial monitoring results are available, the results will be measured against these criteria. If not achieved, the MLS Stadium operator is required to work with the appropriate agency or stakeholder group to ensure that the standards are met. The following Performance Standards have been developed:

1. Vehicle Queuing on City Streets: Through added intersection capacity and/or traffic management, traffic does not queue back to upstream locations during the Pre-Event peak hour including (but not limited to):
    - Northbound 7th Street traffic does not spill back from Railyards Boulevard into the undercrossing of the UPRR tracks (i.e., queues do not extend any greater than 600 feet from Railyards Boulevard).
    - Westbound North B Street traffic does not spill back from 7th Street into the 8th Street intersection
    - Westbound North B Street traffic does not spill back from 8th Street into the 12th Street intersection
    - Southbound 7th Street traffic does not spill back to the LRT tracks at North B Street
2. Pedestrian Flows: Through pedestrian flow management, pedestrians do not spill out of sidewalks onto streets with moving vehicles, particularly along 7th Street between Richards Boulevard and G Street, Railyards Boulevard between 5th Street and 8th Street, and North B Street between 7th Street and 12th Street.
3. Vehicular Parking: A comprehensive parking plan is implemented that includes (but is not limited to) a reservation system, smartphone parking app, directional signage, real-time parking garage occupancy, etc. that minimizes unnecessary vehicular circulation (while looking for parking) within and adjacent to the RSP Area.
4. Bicycle Parking: Signage is clearly visible to direct bicyclists to MLS Stadium event bicycle parking, which has an adequate supply to accommodate a typical MLS Stadium event.
5. Light Rail Transit: A new light rail station/stop is constructed on 7th Street north of Railyards Boulevard and operational at the time the stadium opens, providing an adequate level of LRT service to meet the Pre- and Post-Event ridership demands.

6. Bus/Paratransit: Specific locations are provided to accommodate public buses and paratransit vehicle stops within one block of the MLS Stadium.
7. Ridesharing: Specific locations are provided for pick-up / drop-off areas such that taxi, uber, or similar ridesharing services do not impede overall vehicular or pedestrian flow (including maintaining uncongested conditions along 10th Street to enable emergency vehicle response).
8. Truck Staging: Delivery trucks associated with special events do not park or idle along 7th Street, 8th Street, North B Street, or Railyards Boulevard. Delivery trucks, buses, or other large vehicles should not be parked within the 10th Street cul-de-sac in a manner that blocks fire apparatus or other vehicles from being able to turn around.

MONITORING METHODS AND DOCUMENTATION

The following monitoring activities will occur during the first year of MLS Stadium operations.

Initial Event Monitoring Plan

- *The first two regular season games at the MLS Stadium.*

The purpose of the Initial Event Monitoring Plan is to identify the initial weaknesses in the TMP elements and implement improvements as soon as possible that enable a safer and more enjoyable experience at the MLS Stadium. The monitoring will identify deficiencies in the event planning / operations and recommend measures that can be quickly implemented to resolve these issues.

This effort will consist of collecting observational data to assess which elements of the TMP need to be immediately modified in advance of subsequent events. The following plan elements will be reviewed:

- Pre- and Post-Event Traffic Management
- Pedestrian Circulation
- Bicycle Parking and Access
- Transit Loading and Access
- Vehicular Pick-ups / Drop-offs
- Traffic Congestion and Queuing
- Wayfinding / Signage
- Parking
- Staffing
- General Safety/Security

Prior to each scheduled monitoring event, a meeting will be held with the City and MLS Stadium operator to identify the specific monitoring locations, durations, and staffing responsibilities. A follow-up meeting will occur during the week immediately following each event to discuss the monitoring observations and identify what modifications to the TMP should be implemented for subsequent events.

A written record of observations, and suggested improvements after each monitoring event will be prepared, and be available for public review at City offices.

First Year Typical Event Monitoring Plan:

- *Two typical mid-season soccer matches at the MLS Stadium.*

Matches that are anticipated to have at least 18,000 attendees should be selected. Unless precluded by scheduling conflicts, one monitored event should occur during a weekday evening, while the other monitored event should occur on a weekend afternoon. By waiting until mid-season, this approach enables travel patterns and behavior to "normalize" so that a representative sample is collected. It also allows for the benefits of the initial event monitoring and any associated TMP refinements to take effect.

These events will provide a representative sample of operating conditions at the MLS Stadium, and will be measured against the above Performance Standards. Prior to monitoring these events, a meeting will be held with the City and MLS Stadium operator to identify the specific monitoring locations, durations, and staffing responsibilities. The monitoring effort will focus on the TMP elements and Performance Standards contained in this document. The monitoring effort will include both observational and empirical data collection.

Documentation: The results of the two monitored events will be documented into the "*MLS Stadium Year One Travel Monitoring Report*". This report will include photos, charts, and eyewitness accounts of site operations. It will include an assessment of the extent to which the established Performance Standards are met, exceeded, or are unmet. For those standards that are not met, specific recommendations will be provided which would enable the standard to be achieved. The report will be submitted to the City for review. Once finalized, the report will be made available to the public through the City and MLS Stadium operator websites.

Appendix J.3

Railyards Blvd. and 10th Street Access Feasibility Study Summary

ESA

Kimley»Horn

Memorandum

To: Hector Barron, P.E.
Samar Hajeer, P.E.

From: Thomas Coppin, P.E.

Re: **Railyards Blvd. and 10th Street Access Feasibility Study Summary**

Date: October 15, 2015

The purpose of this memorandum is to document the findings of feasibility studies performed to assess the viability of constructing vehicular and bicycle / pedestrian access points to serve the eastern half of the Railyards project (east of 7th and west of 12th Streets).

Project Understanding

Kimley-Horn was asked to study the feasibility of constructing additional access routes into and out of the Sacramento Railyards project in support of the 2015 land use plan revisions proposed for the project. Specifically this work included the evaluation of an inbound vehicular lane connecting 12th Street to the east end of Railyards Blvd., and a tunnel at 10th Street, to provide vehicular, pedestrian and bike connectivity from the Alkali Flats neighborhood to the Railyards.

In total, Kimley-Horn studied the following scenarios:

1. 10th Street vehicular and bike tunnel
2. 10th Street bike tunnel
3. 10th Street bike bridges
4. Railyards Blvd. connection to 12th Street at mid-block
5. Railyards Blvd. connection to 12th Street at UPRR tracks
6. Railyards Blvd. connection to 12th Street at intersection of North B
7. Railyards Blvd. connection to 12th with grade separated cycle track

Data Collection

Kimley-Horn assembled current topographic survey data of the project site as well as current base map files depicting the proposed onsite street network and lotting. We obtained a current CAD file from the City of Sacramento of the preferred 12th Street Cycle Track project improvements. These files were overlaid to form the basis of our studies.

Excerpts from The Creamery – Phase 1 & 2 improvement plans were provided by the City to assist with evaluation of impacts to the adjacent developments along 10th Street, south of the UPRR tracks.

The current published City of Sacramento Bikeway Mater Plan was obtained from the City's web site to provide guidance on existing and planned bike routes surrounding the Railyards site **Exhibit 1**.

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Alternatives Discussion

10th Street Vehicular and Bike Tunnel

The focal point of this alternative is a 100 ft vehicular tunnel connecting 10th Street beneath the UPRR tracks **Exhibit 2**. The 10th Street section consists of north and south travel lanes, a dual left turn lane, class 2 bike lanes in each direction and attached sidewalks. The intersection with Railyards Blvd. would be located immediately north of the tunnel, resulting in a depressed intersection approximately 14 ft below the elevation of the adjacent pads and tracks. The depressed intersection would require retaining walls at all four legs of the intersection to shore up the adjacent tracks and pads. The retaining walls would limit site visibility at the intersection unless pulled away from the back of walk. Moving gthe walls back or cutting the side slopes back at a rate of 3:1 to eliminate the need for retaining walls and improve site distances and aesthetics was deemed infeasible due to the impact this would have on available real estate for the adjacent lots. The proposed MLS stadium is to be located at the NW quadrant of the intersection and would not have sufficient acreage if additional right-of-way was provided.

At a slope of approximately 4.5%, 10th Street would require 350 ft to match grade to the north and south of the tunnel. This depressed roadway section would limit access to the lots to the north and would impact access to the driveway entrances to the Creamery project which is currently under construction to the south of the UPRR tracks.

10th Street Bike Tunnel

Kimley-Horn studied the feasibility of constructing a standalone bike/pedestrian tunnel at 10th Street **Exhibit 3** in place of the vehicular tunnel. The tunnel would consist of a minimum 12 ft high by 16 ft wide, 325 ft long tunnel for bicycle and pedestrian use. The tunnel would pass beneath the UPRR tracks and Railyards Blvd. extension. The tunnel would be located at a depth of approximately 21 ft. Ramps to the south would extend approximately 135 ft at a slope of 4% and 225 ft to the north to match a pad elevation of 50.0. The northern ramp would extend beyond limits of the adjacent pads and would precluded access to Lot 51a from 10th Street.

10th Street Bike Bridge

Two bike/pedestrian bridge alternatives were studied. The first included a bridge with straight approach ramps **Exhibit 4**. The second included circular ramps to the north and south **Exhibit 5**.

Both alternatives consisted of a 325 ft, elevated bridge located at a minimum height of 22 ft above the UPRR tracks. The southern ramp would project 700 ft to the south to match grade at a slope of 4.5%. Likewise the northern ramp would extend a similar distance reaching all the way to North B Street. The intersection with D Street is only 600 ft to the south and the northern ramp would preclude access to Lot 51a due to its length making this alternative infeasible.

A second ramp alternative included elevated switchbacks at both ends of the bridge. Based on the bridge deck height and grades of 10th Street and Lot 51a, the southern and northern ramp lengths were determined to be approximately 276 ft and 210 ft, respectively. The height and proximity of the southern ramps to the completed Creamery project would pose a significant impact to the completed units. The length of the southern ramps would still extend far enough to the south to impact the alignment of the anticipated driveway entrance. The bridge abutments and ramps to the north would extend over half the distance of the Lot 51a frontage, significantly limiting views to the west and access to the parcel.

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Railyards Blvd. Connection to 12th Street at Mid-Block

In an effort to accommodate access from 12th Street into the Railyards several alternate access alignments were considered. The first was a mid-block connection of Railyards Blvd. to 12th Street **Exhibit 6**. This alternative included a single 20 ft wide extension of Railyards Blvd. with a sidewalk along the north edge and a 12 ft Class 1 bike trail along adjacent to the south edge. The bike trail would provide a direct connection from the 12th Street cycle track to protected bike lanes at 6th Street.

The mid-block connection would consist of a slip lane from south bound 12th Street onto Railyards Blvd. The connection point is located approximately ? ft south of the North B Street intersection. This point coincides with the high point of the 12th Street roadway profile, before it dips into the 12th Street track undercrossing.

This work would require extensive regrading and reconfiguration of the secondary levee on the west side of 12th Street and would include impacts to the Sims property located to the north of the Railyards property.

In addition, this alternative will require a dedicated bike phase at the North B Street intersection to protect cycle track users from right turning vehicles. Free right turn movements at the North B intersection would also be precluded to protect cyclists. The dedicated bike signal phase could cause unacceptable delays to the operation of the North B intersection. Likewise the distance between North B and the Railyards Blvd. intersection may result in unacceptable impacts to signal operations if the signals are not linked.

These signal operational issues will need to be studied further as part of the City's traffic circulation analysis currently underway.

Railyards Blvd. Connection to 12th Street at UPRR Tracks

In addition to the mid-block connection, a location north of the 12th Street track undercrossing was considered for the Railyards Blvd. intersection along 12th Street **Exhibit 7**. This connection would be located ? ft south of the North B intersection. The same street cross section, sidewalk and bike trail improvements were contemplated for this alternative.

As with the prior alternative, extensive grading and retaining wall construction would be required to preserve the flood protection currently afforded by the secondary levee. A dedicated signal or bicycle phase would also be required at this intersection to protect cycle track users from right turning vehicles. However, the increased distance between the two intersections may allow this signal to operate independently of the North B intersection. The greater distance may also afford the possibility of restriping the western-most lane as a dedicated right turn lane.

The signal timing and restriping alternatives will need to be further assessed as part of the City's current circulation study.

Railyards Blvd. Connection to 12th Street at Intersection of North B

In an effort to protect cyclist and reduce intersection operational issues, a connection at the North B intersection was also considered. This alternative places the slip lane entrance to Railyards Blvd. at the North B intersection **Exhibit 8**. This alternative would require a dedicated bike phase for the signal and would require free right turn to be prohibited. Placing the slip lane at the intersection would reduce the

time for bikes and peds to traverse the intersection, theoretically reducing waiting times and intersection delays. As with the prior alternatives, this options needs to be studied further as part of the City's traffic circulation study to assess its full impact on traffic patterns.

This scenario would also require extensive regarding of the secondary levee, but could potentially leave the existing flood gates intact at 12th Street. This alternative would require the removal of buildings on the Sims Metal site and the acquisition of additional right-of-way.

Railyards Blvd. Connection to 12th Street Grade Separation

In order to entirely eliminate conflicts between cyclists and right turning vehicles, Kiimley-Horn studied a final alternative. This alternative contemplates realignment of a portion of the 12th Street Cycle Track and directing the track beneath Railyards Blvd. through a short 35 ft undercrossing **Exhibit 9**.

While this alternative does achieve its desired goal, it results in the most extensive grading and revisions to the secondary levee. Modifications to both the east and west sides of 12th Street would be required. The regrading would also eliminate approximately half of the developable area of Lot 51b.

Conclusions

10th Street Vehicle Tunnel

As a result of our study, it was concluded that the 10th Street vehicular tunnel would not be practical to construct for the following reasons:

- Intersection immediately north of UPRR tracks would be depressed 12-15 feet from surrounding pads and track.
- A 100 foot tunnel would result in public safety concerns.
- The depressed intersection would result in need for dedicated storm drain pump station and perpetual operation and maintenance costs for the City.
- The depressed intersection would result in the need for significant retaining wall construction to support the adjacent pads on Lot 51 and 52. These walls would limit sight distance at all legs of the intersection. Moving the walls away from the intersection or replacing them with slopes would result in significant loss of developable property on Lot 51 and 52. The proposed MLS soccer stadium on Lot 51 cannot afford the loss of additional real estate.
- Depressed roadways would preclude accessibility and emergency access points for vehicle access to Lots 51 and 52.
- Depressed roadways would form aesthetic and physical barriers for bikes and pedestrians to access future development on Lots 51 and 52.
- Depressed intersection would preclude the ability to drain sanitary sewer from lots east of 10th Street by gravity resulting in the need for a permanent lift station and ongoing maintenance costs.
- The Creamery project located south of the UPRR tracks has dedicated right-of-way for the possible construction of the south legs of 10th Street. However, the project is currently under

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construction and includes driveway access to 10th Street which would be eliminated should 10th Street be depressed to accommodate a tunnel.

- The 10th Street tunnel would provide traffic and parking concerns for the Alkali Flats neighborhood with development of the Railyards and accompanying MLS soccer stadium.

For these reasons it was determined that this alternative is not feasible.

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10th Street Bike Tunnel / Bridge

As an alternative to the vehicular tunnel, Kimley-Horn explored the possibility of maintaining bicycle and pedestrian access at 10th Street by constructing a tunnel or bridge. These alternatives were also deemed impractical for the following reasons:

- A 325 foot long tunnel results in public safety concerns.
- It would not be possible to achieve ADA accessibility from a bridge and still touch down within the project limits along north 10th Street. The tunnel option would pose similar constraints.
- The approach ramps would preclude vehicular and pedestrian points of access to Lot 51.
- Construction and permitting of a 325 foot tunnel beneath the UPRR tracks would be problematic given the need to maintain live rail traffic at all times.
- Equally, constructing and permitting a bridge over the UPRR tracks would be difficult without impacting rail traffic.

Railyards Blvd. Connection to 12th Street at Mid-Block

A mid-block connection of Railyards Blvd. to 12th Street was studied.

This alternative poses the following challenges to implementation:

- The west finger of the existing levee would need to be reconstructed.
- A minimum flood protection elevation of 35 feet can be maintained as part of the roadway construction.
- The slip lane from 12th Street to Railyards Blvd. exposes pedestrians and cyclists to potential right turning vehicle conflicts. An additional signal or some other form of stop control would be needed to protect bikes in the cycle track and pedestrians crossing Railyards Blvd. This would affect traffic flow and possibly signal timing at the North B and 12th Street intersection.
- Additional stop controls along the cycle track defeats the purpose of this facility.
- This alternative would also require the redevelopment of the Sims Metal operations north of the Railyards. This property is not controlled by the Railyards and would require significant lead time to remove and remediate the site prior to development of the Railyards Blvd. extension.

Railyards Blvd. Connection to 12th Street at UPRR Tracks

Kimley-Horn studied a connection of Railyards Blvd. to 12th Street immediately north of the UPRR tracks. This alternative is similar to the Mid-Block alternative in many ways, and poses similar challenges to implantation:

- The west finger of the existing levee would need to be reconstructed.
- Additional retaining walls would need to be constructed to support the existing tracks and levee / lots.
- A minimum flood protection elevation of 35 feet can be maintained as part of the roadway construction.
- The right turn from 12th Street to Railyards Blvd. exposes pedestrians and cyclist to potential right turning conflicts with vehicles. An additional sign or stop control would be needed to

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protect bikes in the cycle track. This would affect traffic flow and possibly signal timing at the North B and 12th Street intersection.

Railyards Blvd. Connection to 12th Street at Intersection of North B

In light of the cycle track concerns stated with the prior two 12th Street alternatives described above, Kimley-Horn explored the alternative of moving the Railyards Blvd. connection to the intersection of North B and 12th Street.

This alternative alleviates some concerns but still poses some challenges to implementation:

- The west finger of the existing levee would need to be reconstructed.
- A minimum flood protection elevation of 35 feet can be maintained as part of the roadway construction.
- This alternative would also require the redevelopment of the Sims Metal operations, north of the Railyards. This property is not controlled by the Railyards and would require significant lead time to remove and remediate the site prior to development of the Railyards Blvd. extension.
- By combining the pedestrian and cycle track movements at the intersection an introducing a dedicated bicycle phase potential right turn conflicts between vehicles and cyclists could be reduced.
- The dedicated bicycle signal phase will potentially impact signal operations and traffic flow.

Railyards Blvd. Connection to 12th Street Grade Separation

The grade separated alternative completely eliminates bicycle and vehicle conflicts. While this alternative achieves it stated goals, it also results in significant cost implications which must be evaluated.

- Eliminates vehicle and cyclist conflicts.
- Eliminate the need for dedicated bike signal phase.
- Allows for free right turn movements at the North B and 12th Street intersection.
- Requires reconstruction of both east and west portions of secondary levee.
- Reduces developable area of Lot 51b by approximately one half.

Attachments:

Exhibit 1 – City of Sacramento Bikeway Mater Plan
Exhibit 2 - 10th Street Vehicular and Bike Tunnel
Exhibit 3 - 10th Street Bike Tunnel
Exhibit 4 - 10th Street Bike Bridge
Exhibit 5 - 10th Street Bike Bridge
Exhibit 6 - Railyards Blvd. Connection to 12th Street at Mid-Block
Exhibit 7 - Railyards Blvd. Connection to 12th Street at UPRR Tracks
Exhibit 8 - Railyards Blvd. Connection to 12th Street at Intersection of North B
Exhibit 9 - Railyards Blvd. Connection to 12th Street Grade Separation

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Attachments

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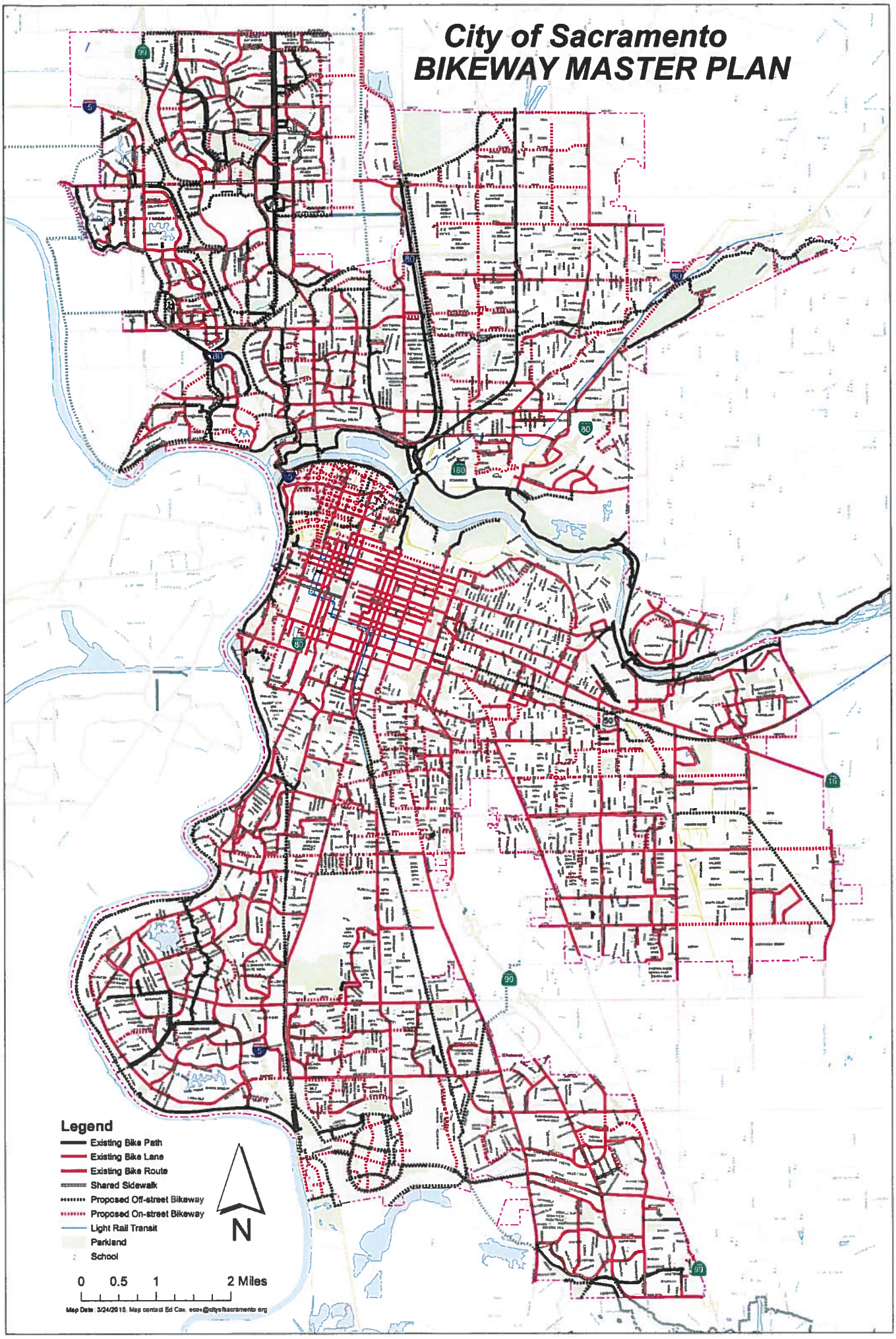
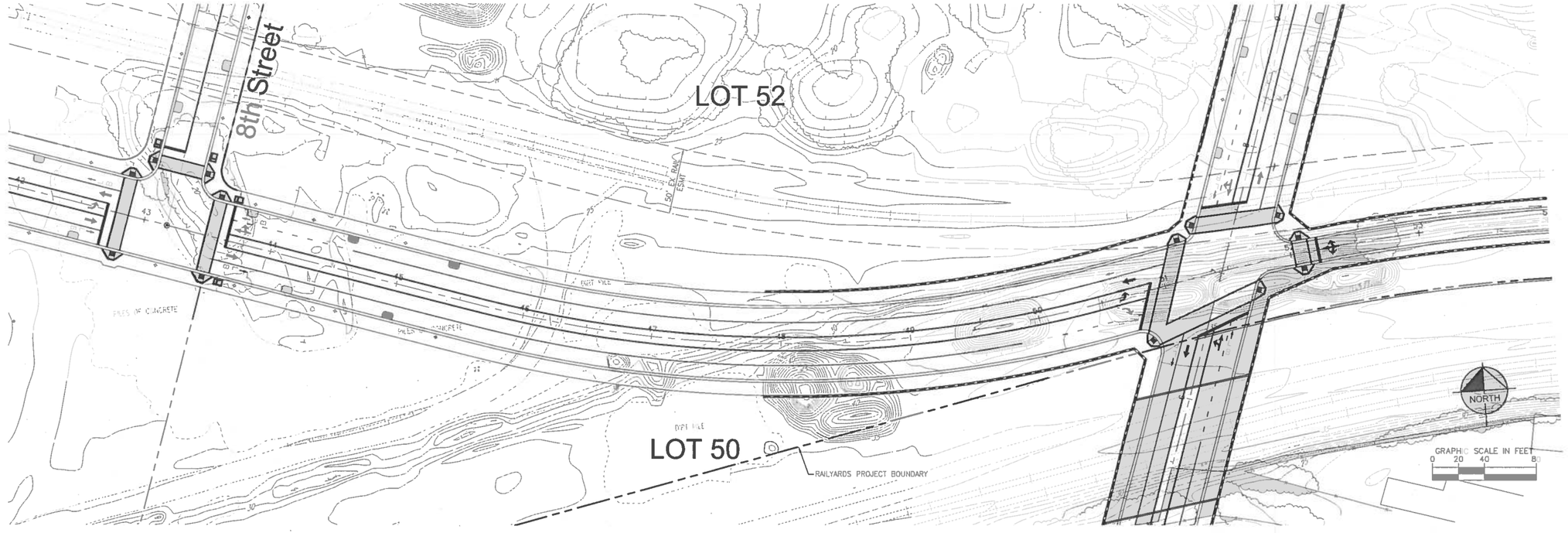
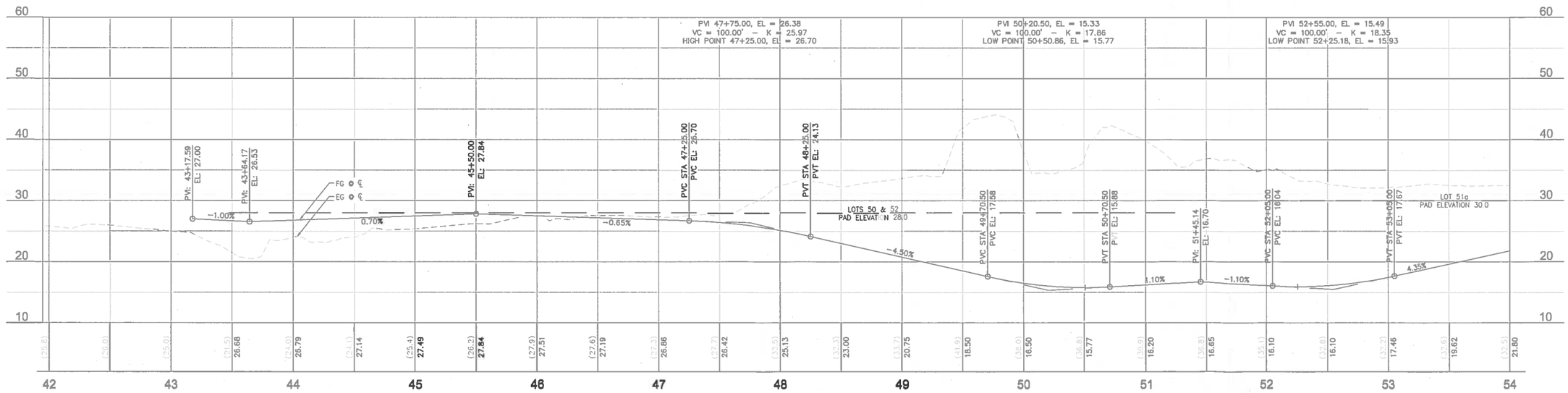
City of Sacramento
BIKEWAY MASTER PLAN







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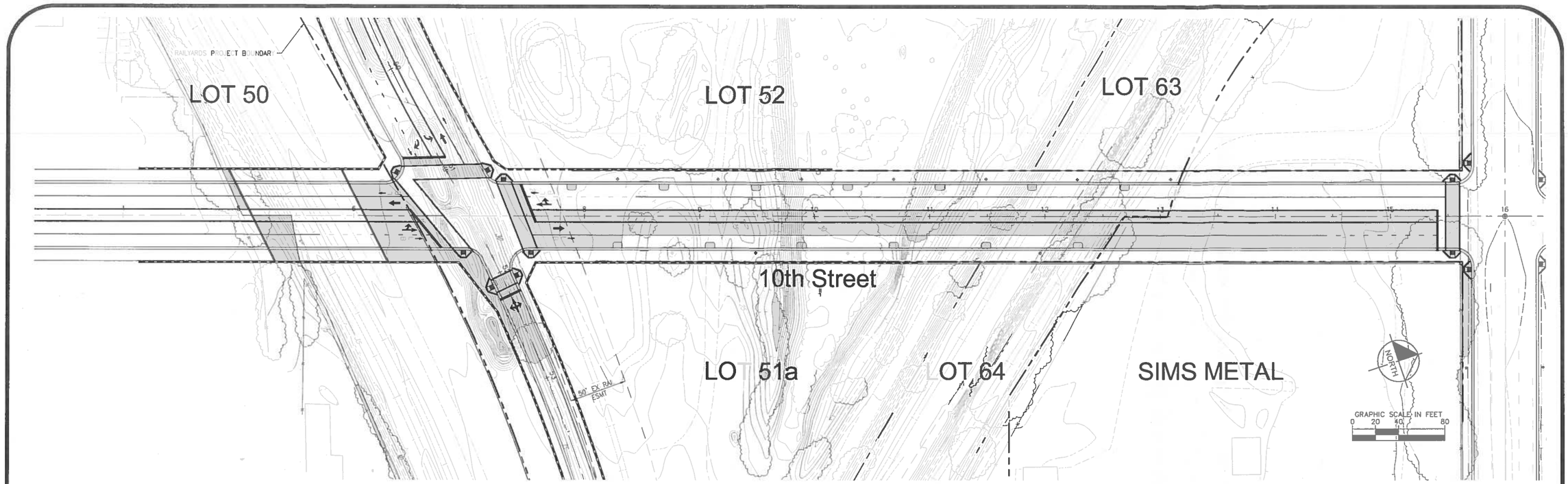

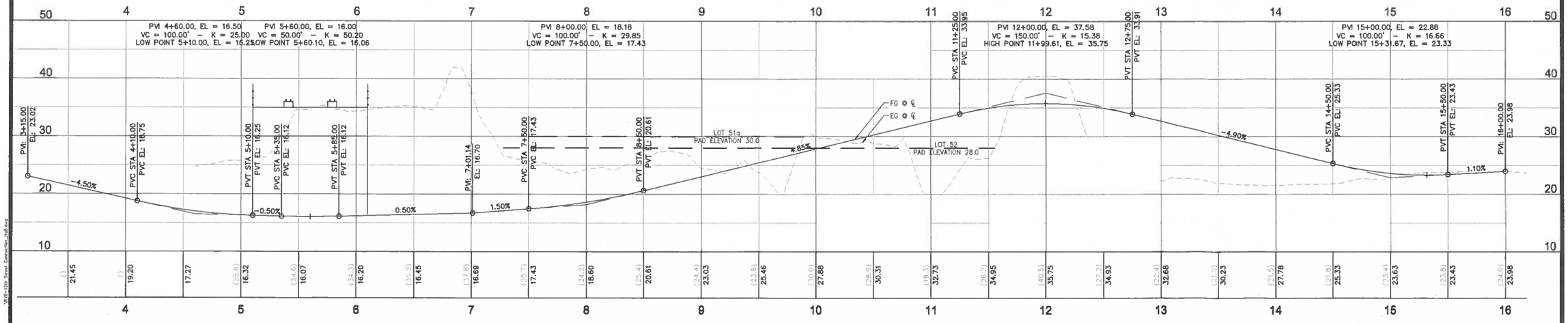

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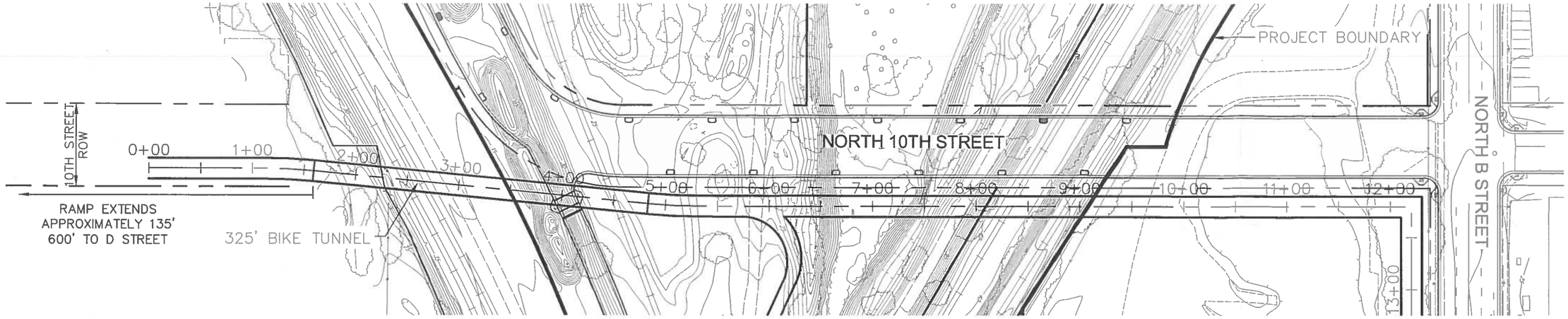
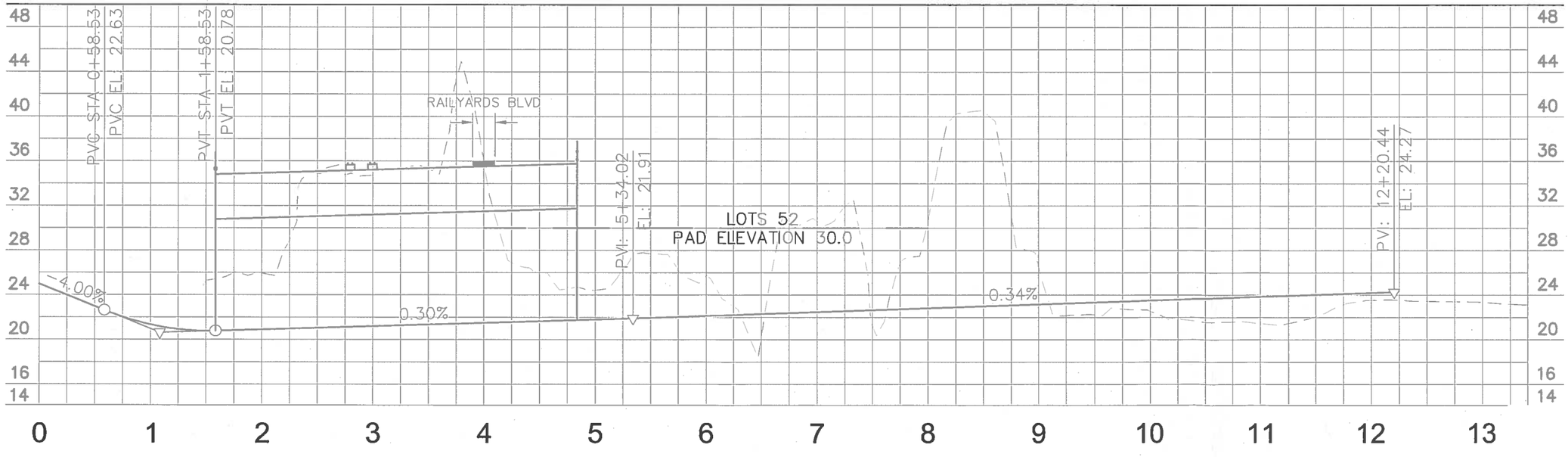


SACRAMENTO RAILYARDS BIKE TUNNEL EXHIBIT

09/29/2015



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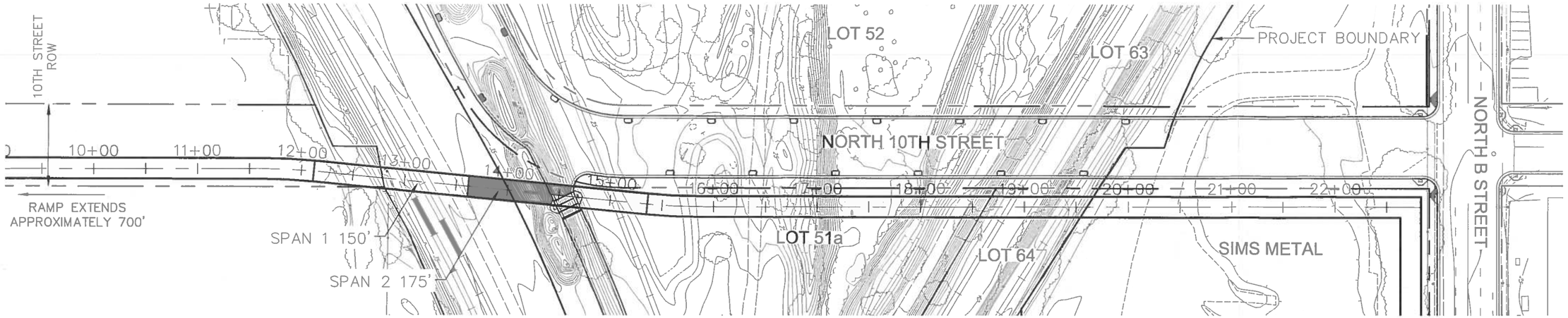

SACRAMENTO RAILYARDS BIKE BRIDGE EXHIBIT

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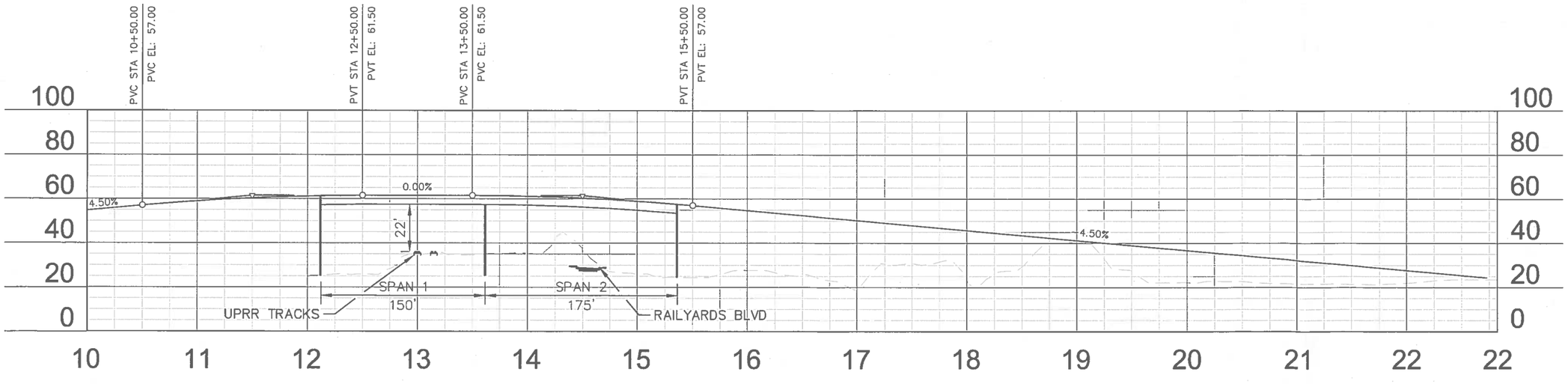

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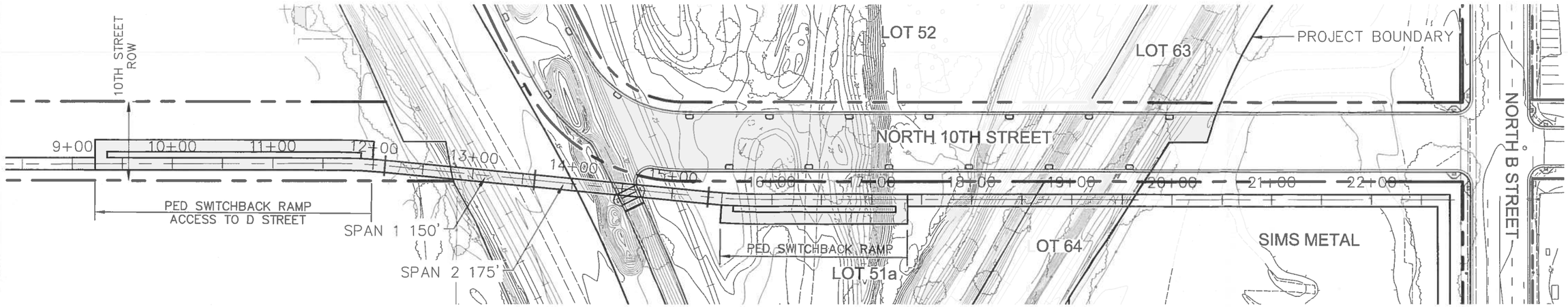

SACRAMENTO RAILYARDS BIKE BRIDGE EXHIBIT

10/14/2015

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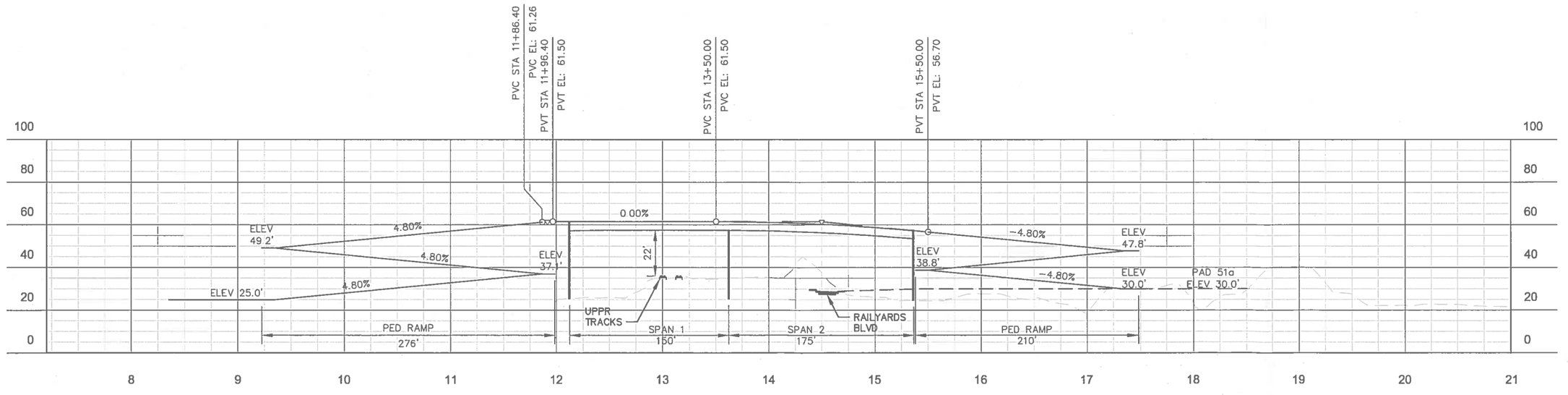

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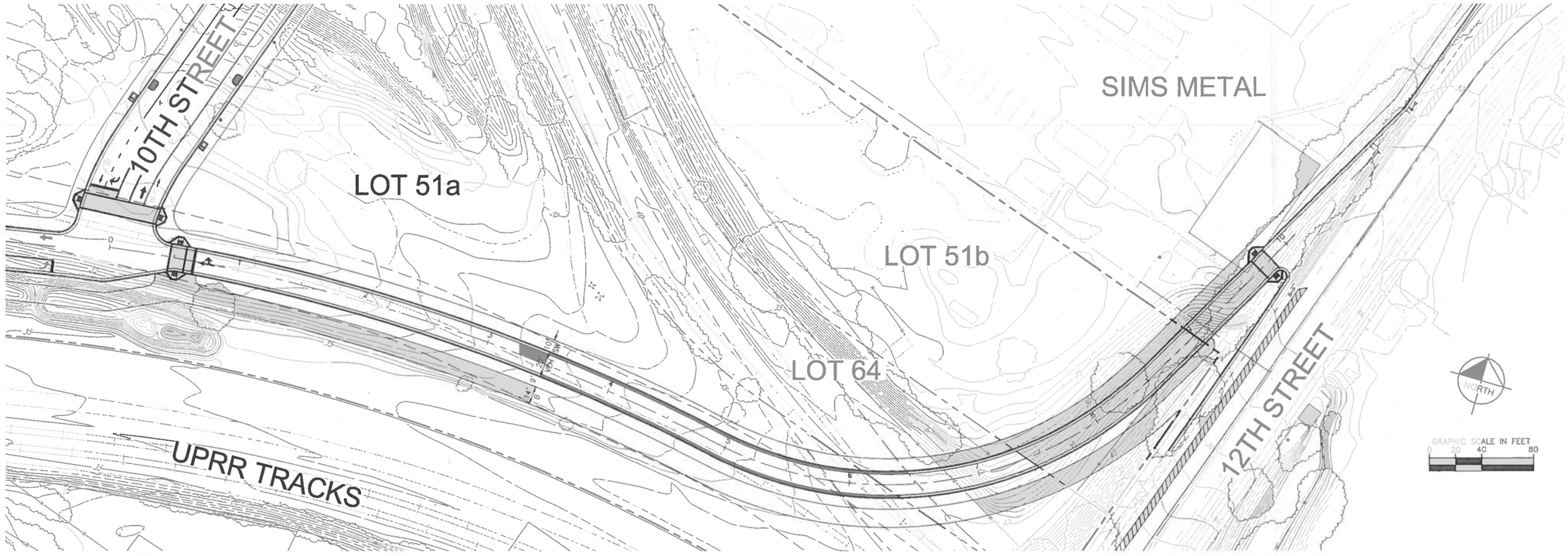

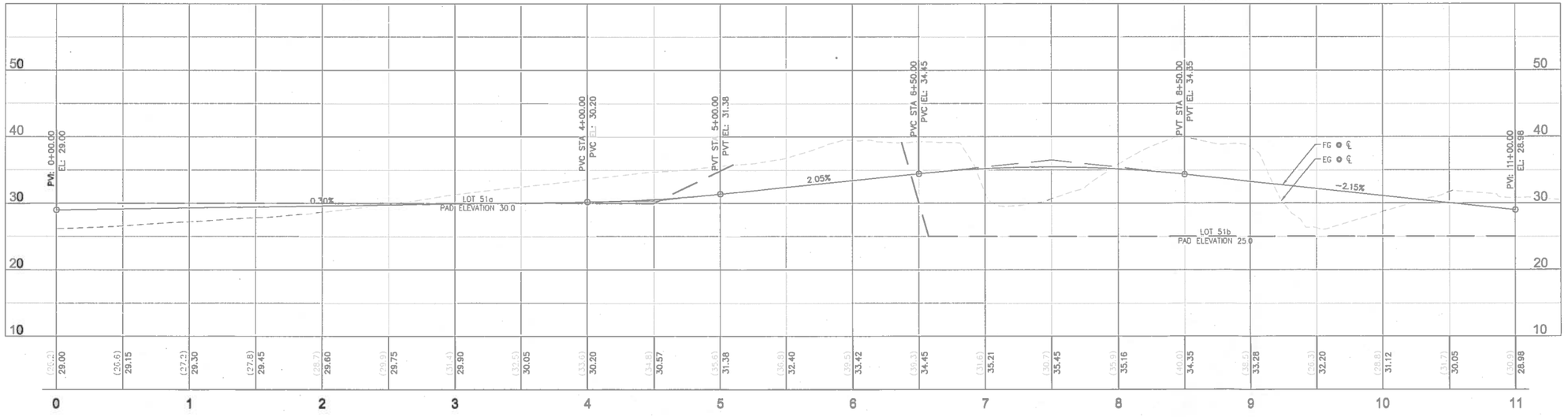

RAILYARDS BOULEVARD & 12TH STREET CONNECTION

OPTION A

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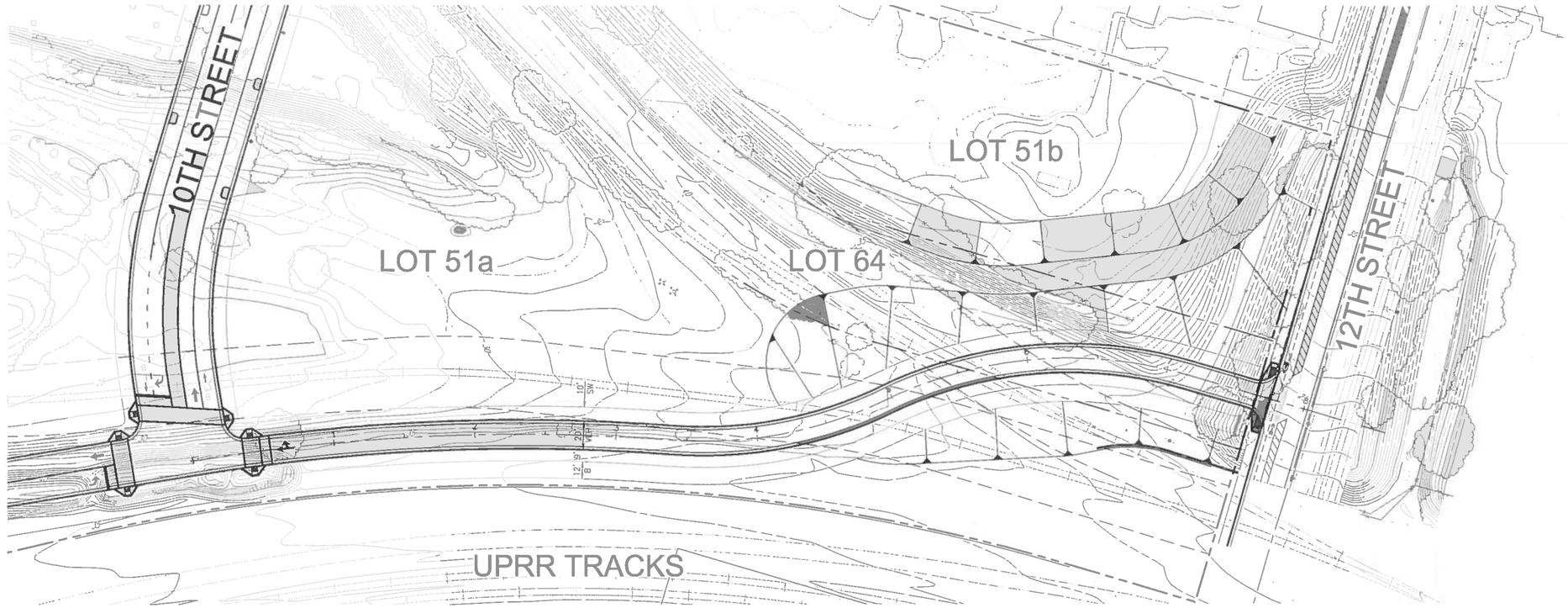

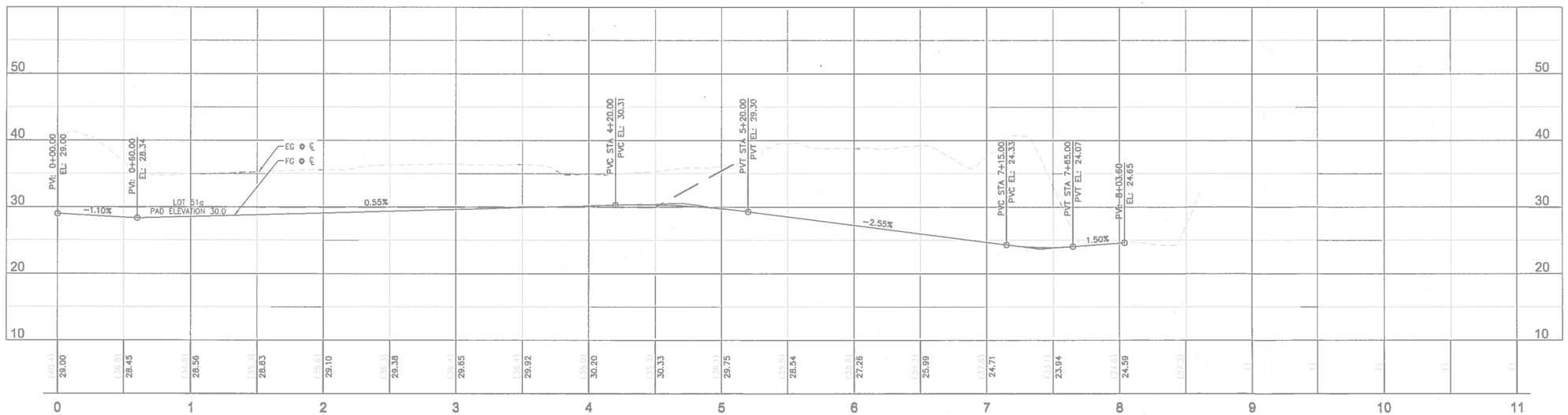

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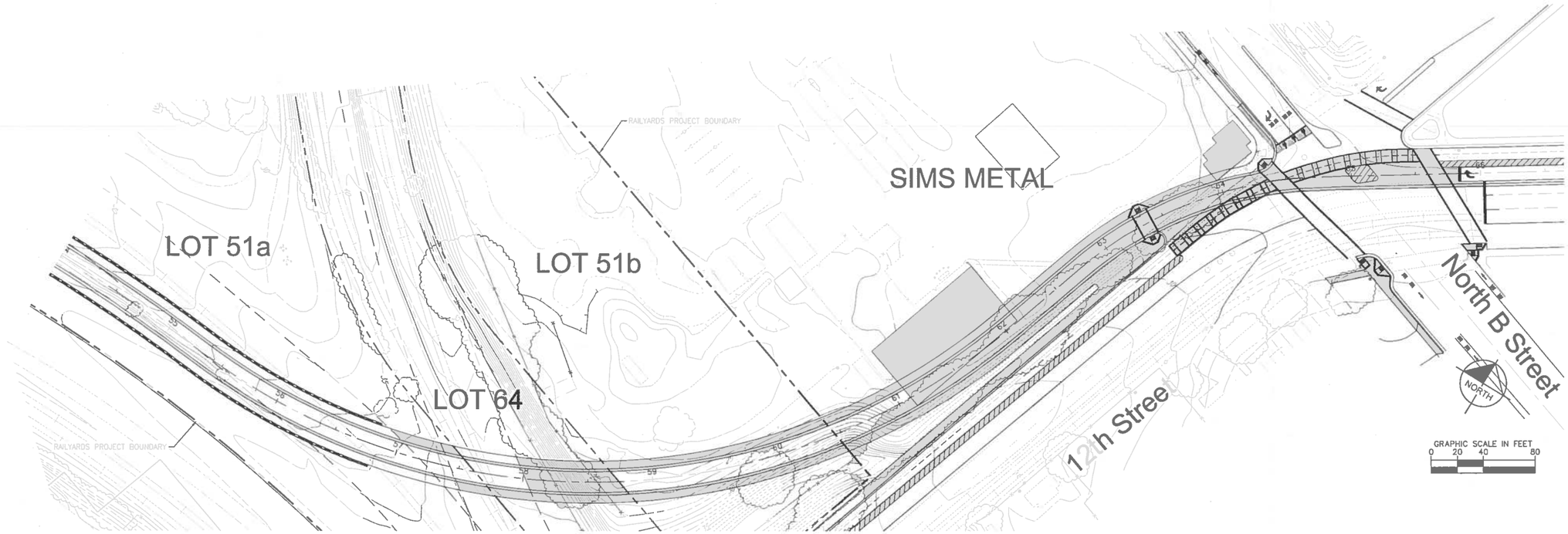

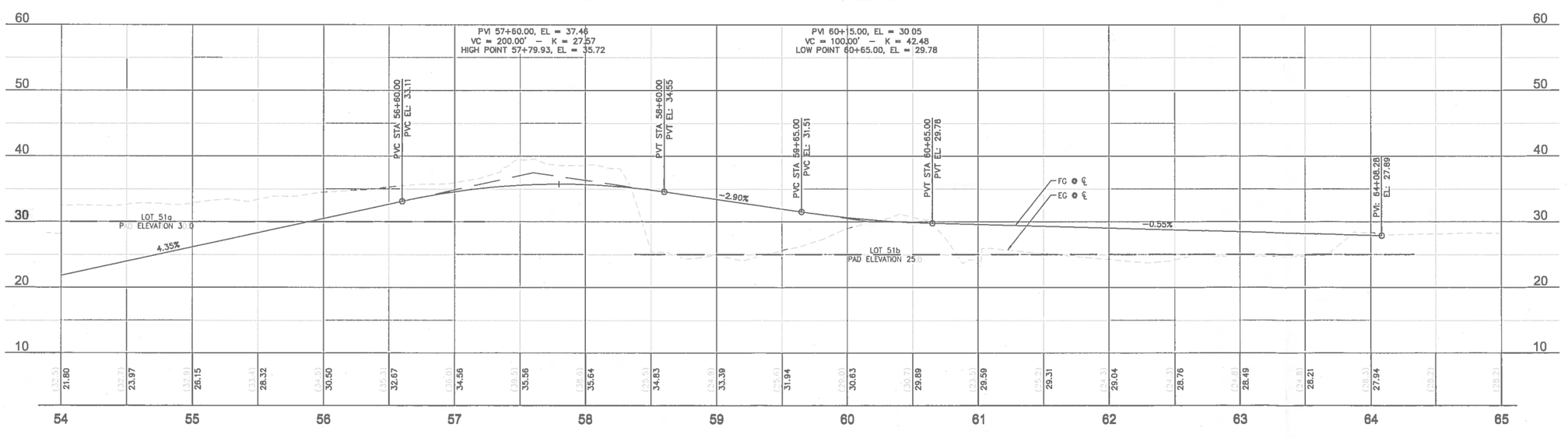

RAILYARDS BOULEVARD & 12TH STREET CONNECTION

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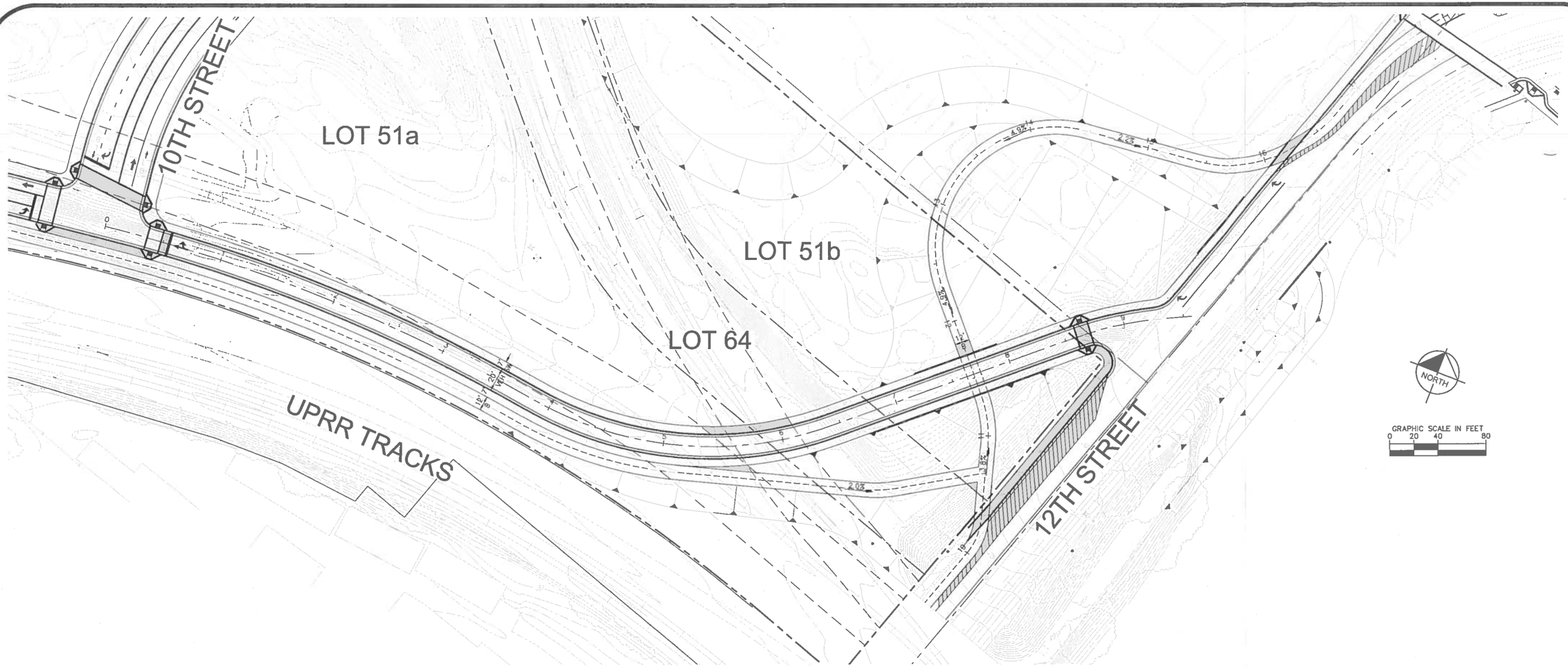

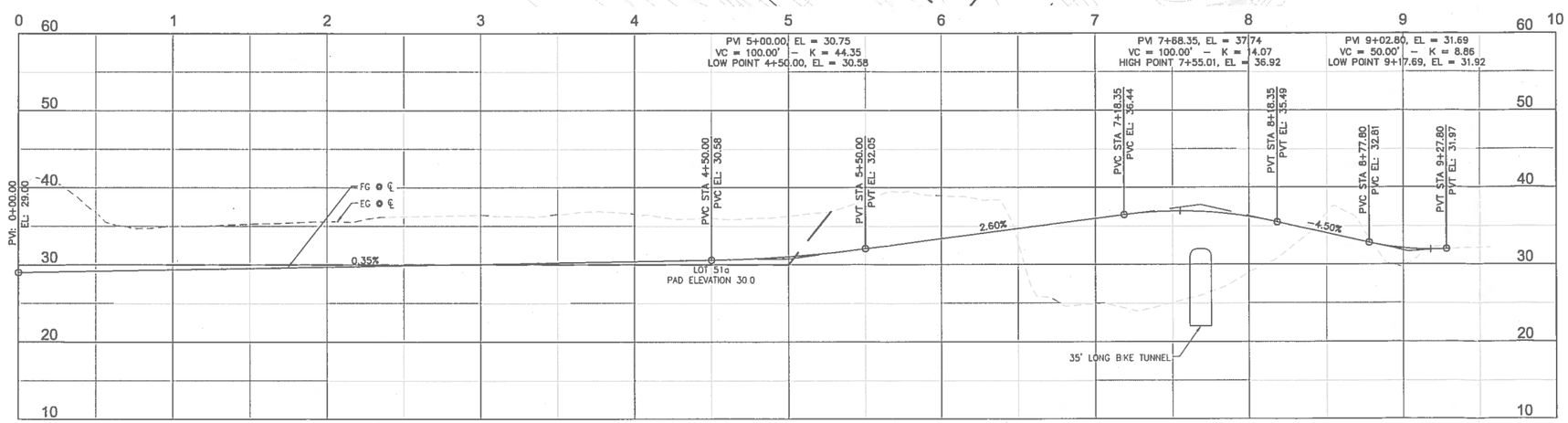

RAILYARDS BOULEVARD & 12TH STREET CONNECTION

GRADE SEPERATED ALTERNATIVE

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Appendix K
Water Supply Assessment

ESA

City of Sacramento
SB 610/SB 221 Water Supply Assessment and Certification Form

This form may be used to complete water supply assessments for projects located in an area covered by the City's most recent Urban Water Management Plan.

Note: Please do not use this form if the projected water demand for your project area was not included in the City's latest Urban Water Management Plan. To review the City's Urban Water Management Plan, please visit: http://www.cityofsacramento.org/utilities/urbanwater/index.html

Project: **Railyards Specific Plan Update**

Date: **September 27, 2016**

Project Applicant (Name of Company): Downtown Railyard Venture, LLC

Applicant Contact (Name of Individual): Adrienne L. Graham on behalf of ESA for Jay Heckenlively, DRV

Phone Number: **916-206-0135**

E-mail: algraham@surewest.net

Address: ESA, 2600 Capitol Avenue, Sacramento, CA 95816

Project Applicant to fill in the following:

1. Does the project include:

Type of Development	Yes	No
A proposed residential development of 500 or more dwelling units	x	
A shopping Center employing more than 1,000 persons or having more than 500,000 square feet?		x
A Commercial Office building employing more than 1,000 persons or having more than 250,000 square feet?	x	
A proposed hotel or motel, or both, having more than 500 rooms	x	
A proposed industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area		x
A mixed use project that includes one or more of the projects specified above	x	
A project that would demand an amount of water equivalent to, or greater than, the water required by a 500 dwelling unit project	x	

If the answer is no to all of the above, a water supply assessment is not required for the project.

2. Is the projected water demand for the project location included in the City's 2015 Urban Water Management Plan, adopted June 21, 2016?

Yes: x No: _____

If the answer is no, you cannot use this form. Please refer to the requirements of SB 610 for preparing a water supply assessment.

3. Please fill in the project demands below:

Type of Development	Land Use Category	Demand Factor		Proposed Development			Current Zoning		
		Residential Water Use Factor, afy/dwelling unit	Non-Residential Water Use Factor, afy/employee	Number Dwelling Units	Number Employees	Total Demand	Number Dwelling Units	Number Employees	Total Demand
Residential - Low	Rural Residential (RR)	.61	.09						
	Suburban Neighborhood Low Density (SNLD)								
	Traditional Neighborhood Low Density (TLDR)								
Residential - Medium	Suburban Neighborhood Medium Density (SMDR)	.39	.09						
	Urban Neighborhood Low Density (ULDR)								
Residential - High	Suburban Neighborhood High Density (SHDR)	.12	.04						
	Traditional Neighborhood Medium Density (TMDR)								
	Urban Neighborhood Medium Density (UMDR)								
	Traditional Neighborhood High Density (THDR)			6,000-10,000[11]		720-1,200	10,000-12,500		1,200-1500

[11] The RSPU proposes 6,000 to 10,000 dwelling units. If 6,000 du are developed, commercial office would be limited to 4.54 msf. If 10,000 du are developed, office would be limited to 3.44 msf. All other uses would be unchanged.

Type of Development	Land Use Category	Demand Factor		Proposed Development			Current Zoning		
		Residential Water Use Factor, afy/dwelling unit	Non-Residential Water Use Factor, afy/employee	Number Dwelling Units	Number Employees	Total Demand	Number Dwelling Units	Number Employees	Total Demand
Mixed Use	Employment Center Mid Rise (ECMR)	.19	.09						
	Suburban Center (SCnt)								
	Suburban Corridor (Scor)								
	Traditional Center (TCnt)								
Mixed Use - Higher Density	Urban Center High (UCntHigh)	.15	.04						
	Urban Center Low (UcntLow)								
	Urban Corridor High (UCorHigh)								
	Urban Corridor Low (UCorLow)								
Central Business District	Central Business District (CBD)	.15	.02		15,142-11,476[12]	303-230		10,894	218
	Urban Neighborhood High Density (UHDR)								
Commercial	Regional Commercial (RC)	.15	.09		2,263	204		4,045	364
	Employment Center Low Rise (ECLR)								
Industrial	Industrial (IND)		.14						
Public	Public/Quasi-Public (PUB)	.37	.17		120	20	125		21
Park	Parks and Recreation (PRK)	.37	2,678/acre (3 afy/acre)	30 acres		90	41.2 acres		123

[12] The RSPU proposes 6,000 to 10,000 dwelling units. If 6,000 du are developed, commercial office would be limited to 4.54 msf. If 10,000 du are developed, office would be limited to 3.44 msf. All other uses would be unchanged.

Type of Development	Land Use Category	Demand Factor		Proposed Development			Current Zoning		
		Residential Water Use Factor, afy/dwelling unit	Non-Residential Water Use Factor, afy/employee	Number Dwelling Units	Number Employees	Total Demand	Number Dwelling Units	Number Employees	Total Demand
Open Space	Open Space (OS)	0	0	0			0		
Other	Hotel		250 gpd/room (0.28 afy/room)	1,100 rooms		308	1,100 rooms		308
Other	Hospital		387.5 gpd/bed (0.43afy/bed)	420 beds		182	0		
Other	Medical Office		0.02	1,855 employees		37			
Other	MLS Stadium		3 gpd/seat (0.0034afy/seat)	25,000 seats		7	0		
Total Demand (AFY)						1,871-2,278			2,234-2,534

4. Required Elements of Water Supply Assessment (Water Code § 10910)

A. Water supply entitlements, water rights or water service contracts (Water Code § 10910(d)):

The City's water supply entitlements, water rights and water service contract are identified and discussed in the Urban Water Management Plan, Chapters 3, 6, and 7.

All infrastructure necessary to deliver a water supply to the project is in place, excepting any distribution facilities required to be constructed and financed by the project applicant: Yes: x No: ____

B. Identification of other sources of water supply if no water has been received under City's existing entitlements, water rights or water service contracts (Water Code § 10910(e)):

Not applicable.

C. Information and analysis pertaining to groundwater supply (Water Code § 10910(f)):

Addressed by Urban Water Management Plan, Chapters 3, 6, and 7.

Verification of Water Supply
(for residential development of more than 500 dwelling units)

Based on the City's most recent Urban Water Management Plan, are there sufficient water supplies for the project during normal, single dry and multiple dry years over a 20 year period?

Yes: X No: _____

By: Brett Ewart

Title: Senior Engineer

Date: 10/7/2016

This box to be filled in by the City

Distribution:

Applicant
Development Services Department (Org: 4913) – Assigned Planner: _____
Utilities Department (Org: 3334) - Development Review (Tony Bertrand)
Utilities Department (Org: 3332) - Capital Improvements (Brett Ewart)

Appendix L
Urban Decay Analysis Tables

ESA

TABLE L-1
RSPU SPENDING POTENTIAL

	Residential Households	Expenditures	Employees	Expenditures	Downtown Visitor	Expenditures	Museum Visitors	Expenditures	Entertainment Visitor	Expenditures	MLS Stadium Event Attendee	Expenditures	Total Spending Potential
2007 RSP													
2007 RSP (Min Housing Scenario)	10,000	$162,960,000	15200	$56,620,000	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	0	$0	$400,255,000
2007 RSP (Max Housing Scenario)	12,500	$203,700,000	12500	$46,562,500	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	0	$0	$430,937,500
RSPU													
RSPU (Min Housing Scenario)	6,000	$97,776,000	22903	$85,313,675	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	667000	$13,340,000	$377,104,675
RSPU (Max Housing Scenario)	10,000	$162,960,000	22903	$85,313,675	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	667000	$13,340,000	$442,288,675
Change from 2007 RSP Min	**-4000**	**($65,184,000)**	**7703**	**$28,693,675**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**667000**	**$13,340,000**	**($23,150,325)**
Change from 2007 RSP Max	**-2,500**	**($40,740,000)**	**-12,500**	**($46,562,500)**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**667,000**	**$13,340,000**	**$11,351,175**
RSPU Land Use Variant (LUV)													
RSPU LUV (Min Housing Scenario)	7,000	$114,072,000	22578	$84,103,050	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	0	$0	$378,850,050
RSPU LUV (Max Housing Scenario)	10,000	$162,960,000	22578[7]	$84,103,050	2370000	$142,200,000	175000	$9,975,000	500000	$28,500,000	0	$0	$427,738,050
Change from 2007 RSP Min	**-3000**	**($48,888,000)**	**7378**	**$27,483,050**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**($21,404,950)**
Change from 2007 RSP Max	**-1,500**	**($24,444,000)**	**10,078**	**$37,540,550**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**($3,199,450)**
Downtown Commons													
Downtown Commons Retail	550	$4,268,000	3,424	$12,754,400	0	0	0	0	0	0	1,500,000[8]	$30,800,000	$47,822,400

1. Assumes 2.1 Individuals per household for Downtown Sacramento residents and retail spending per capita of $7,760 annually.
2. Assumes 1 employee per 300 feet of commercial space and 1 employee per 400 feet of retail space and retail spending per capita of $3,725 annually.
3. Assumes $60 in retail expenditures per visit.
4. Assumes $57 in retail expenditures per visit.
5. Based on proposed spending in ESC analysis, assumes retail expenditures of $20 per event attendee.
6. Assumes same rate of downtown, museum, and Entertainment visitors as proposed in the 2007 RSP analysis.
7. Assumes the same number of employees for the RSPU land use variant minimum and maximum housing scenarios.
8. ESC event attendees are substituted for MLS Stadium event attendees.

SOURCE: City of Sacramento, 2007. Railyards Specific Plan Environmental Impact Report, Appendix N.; ESA, 2016.

TABLE L-2
RSPU and ESC PROJECT SALES

	Comparison Retail	Eating and Drinking Retail	Convenience Retail	Total
2007 RSP				
Square Footage	500,000	400,000	100,000	**1,100,000**
Retail Sales Requirements	$200,000,000	$190,000,000	$50,000,000	**$440,000,000**
RSPU				
Retail Space[2] (square feet)	365,251	295,680	208,715	**869,646**
Change from 2007 RSP[2] (square feet)	216,029	174,880	123,445	**514,354**
Retail Sales Requirements[1]	$138,238,526	$169,656,373	$87,969,971	**$395,864,870**
Change from 2007 RSP[1]	($81,761,474)	($100,343,627)	($52,030,029)	**($234,135,130)**
RSPU Land Use Variant				
Square Footage[2]	436,168	353,089	249,239	**1,038,469**
Change from 2007 RSP [2] (square feet)	145,112	117,471	82,921	**345,504**
Retail Sales Requirements[1]	$165,078,844	$202,596,763	$105,050,173	**$472,725,780**
Change from 2007 RSP[1]	($54,921,156)	($67,403,237)	($34,949,827)	**($157,274,220)**
ESC				
2007 Downtown Plaza Retail Square Footage	N/A	N/A	N/A	**909,128**
Square Footage[2]	273,000	238,875	170,625	**682,500**
Change from 2007 RSP EIR Existing Conditions[2]	(90,651)	(79,319)	(56,657)	**226,628**
Retail Sales Requirements[1]	$93,843,750	$121,233,840	$65,124,150	**$280,201,740**
Change from 2007 RSP EIR Existing Conditions	($31,161,350)	($40,256,385)	($21,624,844)	**($93,042,579)**

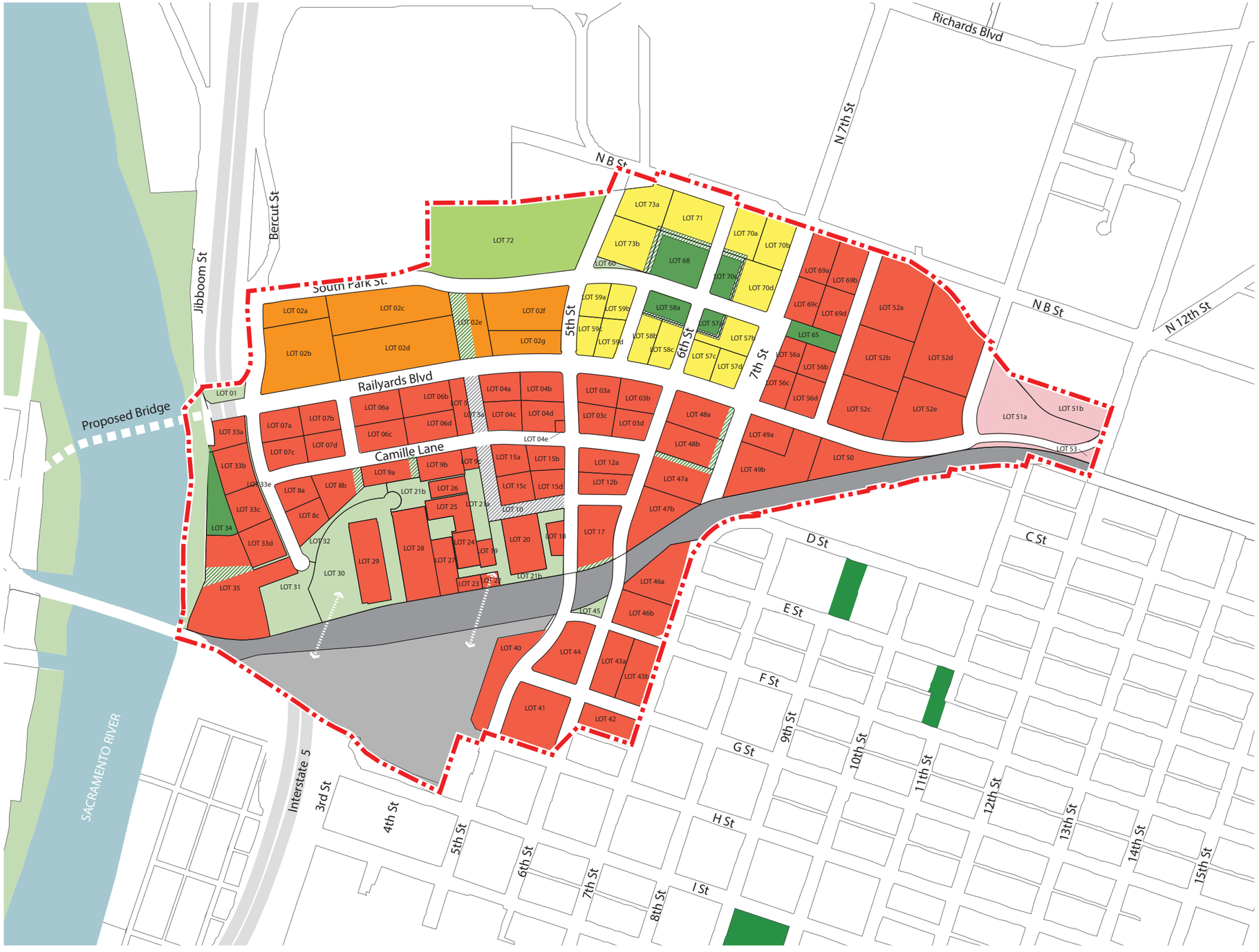
1. Assumes sales requirements are based on 2007 dollars.
2. Assumes that proposed retail will have a retail type distribution of 40% Comparison Retail, 35% Eating and Drinking Retail, and 25% Convenience Retail, consistent with the 2007 RSP assumption.

SOURCE: City of Sacramento, 2007. *Sacramento Railyards Specific Plan Environmental Impact Report, Appendix N, Pg. 13-19; ESA, 2016.*

Appendix M
Land Use Allocation Tables

ESA

Land Use - Option 1 (No Berm)



KEY

- Site Boundary
- Parks / Open Space
- Water
- Public Easement
- Private Street (with public access)
- Pedestrian Tunnel

LAND USES

- H-SPD
- C1-SPD
- C-2-SPD
- C3-SPD
- R-5-SPD
- T-C SPD
- M2 SPD

N

0 100 250 500 1,000 ft

AECOM

DRAWING TITLE
Land Use - Option 1

DATE
02 June 2016

SACRAMENTO RAILYARDS

TABLE M-1
SACRAMENTO RAILYARDS

LAND USE / DENSITY ALLOCATION - Proposed RSPU - 6,000 Housing Units and 10,000 Housing Units Scenarios **updated: 5/19/2016**

Note: 10,000 Housing Units Scenario average residential density calculations rounded to the nearest 5.

LOT	DESCRIPTION	LAND USE	Lot Acres	Acres by Block	6,000 Units Res. Yield	10,000 Units Res. Yield	10,000 Units Residential Density	6,000 Units Office (SF) Yield	10,000 Units Office (SF) Yield	6,000 Units Retail (SF) Yield	10,000 Units Retail (SF) Yield	Flexible Mixed-Use (SF)	Medical Office (SF)	Hospital Facilities/ Bed Tower (SF)	MLS Stadium	Hotel (Keys)	Historic and Cultural (SF)			Open Space (ac.)
																	Retail	Flex	Museum	
1	Lot 1 - open space	C3-SPD	**0.53**	**0.53**																**0.53**
2a	Kaiser Hospital	H-SPD	**1.14**	**1.14**									510,000	718,003						
2b			**3.5**	**3.50**																
2c			**3.31**	**3.31**																
2d			**4.17**	**4.17**																
2e			**1.62**	**1.62**																
2f			**2.41**	**2.41**																
2g			**1.26**	**1.26**																
3a	Lot 3	C3-SPD	**0.94**	**3.41**	523	**872**	255 du/ac			22,216	22,216									
3b			**0.91**																	
3c			**0.8**																	
3d			**0.76**																	
4a	Lot 4	C3-SPD	**0.83**	**3.58**	600	**1,000**	280 du/ac	379,893	**271,550**	66,366	66,366	77,160				450				
4b			**0.94**																	
4c			**0.8**																	
4d			**0.93**																	
4e	Lot 4e - water tower		**0.08**																	
5	Lot 5 - new parcel west of Stanford	C3-SPD	**0.66**	**0.66**						9,776	9,776	11,366								
5a	Lot 5a - Stanford St North	C3-SPD	**0.64**	**0.64**																
6a	Lot 6	C3-SPD	**1.11**	**4.28**				418,856	**299,401**	63,397	63,397	73,708								
6b			**1.13**																	
6c			**1.01**																	
6d			**1.03**																	
7a	Lot 7	C3-SPD	**0.92**	**3.41**				340,930	**243,699**			69,246								
7b			**0.85**																	
7c			**0.87**																	
7d			**0.77**																	
8a	Lot 8 - Transition Zone	C3-SPD	**0.76**	**2.81**				282,485	**201,922**	0	0	57,376								
8b			**1.17**																	
8c			**0.88**																	
9a	Lot 9 - Transition Zone	C3-SPD	**0.85**	**1.92**				155,854	**111,405**			31,656				0				
9b			**0.83**																	
9c	Lot 9c - new building	C3-SPD	**0.24**							8,500	8,500									
10	Lot 10 - Private Street	C3-SPD	**1.5**	**1.50**																
12a	Lot 12	C3-SPD	**0.95**	**1.76**	277	**462**	260 du/ac	175,335	**125,331**			35,612								
12b			**0.81**																	
15a	Lot 15	C3-SPD	**0.77**	**2.85**				526,006	**375,992**	61,191	**61,191**	106,837								
15b			**0.67**																	
15c			**0.76**																	
15d			**0.65**																	
17	Lot 17 - parking garage	C3-SPD	**1.74**	**1.74**												0				
18	Lot 18 - new bulding	C3-SPD	**0.38**	**0.38**													20,000			
19	Lot 19 - new building	C3-SPD	**0.31**	**0.31**						7,800	**7,800**									
20	Lot 20 - Paint Shop (existing)	C3-SPD	**1.54**	**1.54**													56,750			
21a	Lot 21 - plaza	C3-SPD	**0.86**	**3.89**																**3.89**
21b			**3.03**															20,000		
22	Lot 22 - new building	C3-SPD	**0.19**	**0.19**						6,080	**6,080**						4,222	16,889		
23	Lot 23 - new building	C3-SPD	**0.26**	**0.26**						8,320	**8,320**						5,778	23,111		
24	Car Shop #3	C3-SPD	**0.61**	**0.61**													15,075	20,000		
25	Planning Mill	C3-SPD	**0.88**	**0.88**													22,200	20,000		
26	Car Machine Shop	C3-SPD	**0.46**	**0.46**													14,500	20,000		
27	Blacksmith Shop	C3-SPD	**0.87**	**0.87**													14,000	22,865		
28	Lot 28	C3-SPD	**2.32**	**2.32**															100,000	
29	Lot 29	C3-SPD	**1.81**	**1.81**															80,000	
30	Lot 30 - open space	C3-SPD	**4.77**	**4.77**																**4.77**
31	Lot 31 - open space	C3-SPD	**2.08**	**2.08**																**2.08**
32	Lot 32 - open space	C3-SPD	**0.76**	**0.76**																**0.76**
33a	Lot 33	C3-SPD	**0.72**	**4.23**																**0.27**
33b			**1.14**																	
33c			**1.03**																	
33d			**1.07**																	
33e			**0.27**																	
34	Lot 34 - open space	C3-SPD	**1.11**	**1.11**																**1.11**
35	Lot 35	C3-SPD	**4.98**	**4.98**	543	**905**	180 du/ac			32,017	32,017					450				

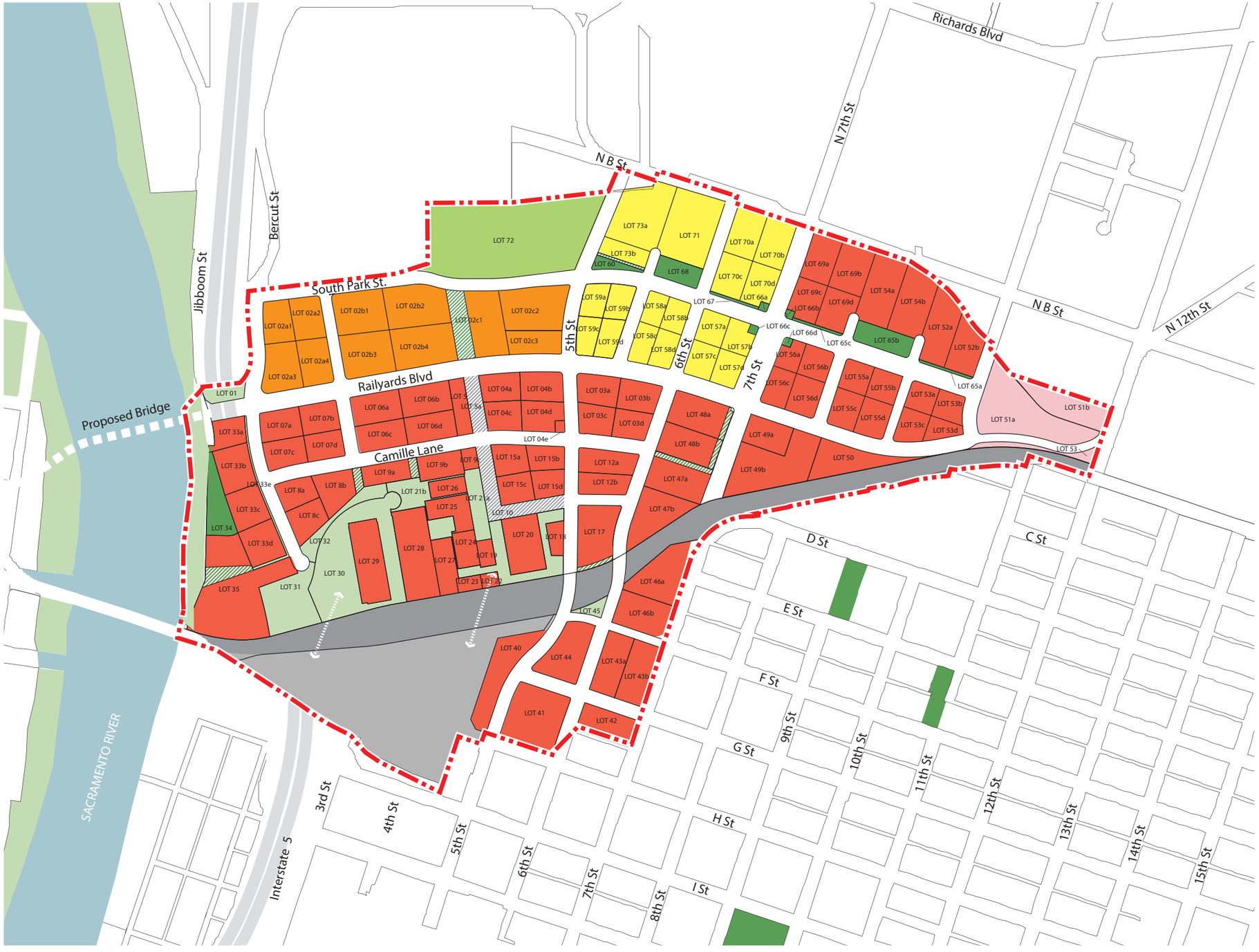
TABLE M-1
SACRAMENTO RAILYARDS

LAND USE / DENSITY ALLOCATION - Proposed RSPU - 6,000 Housing Units and 10,000 Housing Units Scenarios **updated: 5/19/2016**

Note: 10,000 Housing Units Scenario average residential density calculations rounded to the nearest 5.

LOT	DESCRIPTION	LAND USE	Lot Acres	Acres by Block	6,000 Units Res. Yield	10,000 Units Res. Yield	10,000 Units Residential Density	6,000 Units Office (SF) Yield	10,000 Units Office (SF) Yield	6,000 Units Retail (SF) Yield	10,000 Units Retail (SF) Yield	Flexible Mixed-Use (SF)	Medical Office (SF)	Hospital Facilities/ Bed Tower (SF)	MLS Stadium	Hotel (Keys)	Historic and Cultural (SF)			Open Space (ac.)
																	Retail	Flex	Museum	
40	Lot 40	C3-SPD	**1.86**	**1.86**				175,335	**125,331**											
41	Lot 41 - Sold for AOC - NAPOTS	C3-SPD	**2.5**	**2.50**				400,000	**285,922**											
42	Lot 42 - SMUD - NAPOTS	C3-SPD	**1.18**	**1.18**																
43a 43b	Lot 43	C3-SPD	**1.26** **1.34**	**2.60**	468	**780**	300 du/ac	253,262	**181,033**											
44	Lot 44	C3-SPD	**1.65**	**1.65**						28,929	28,929									
45	Lot 45 - open space	C3-SPD	**0.22**	**0.22**																**0.22**
46a 46b	Lot 46	C3-SPD	**1.93** **1.45**	**3.38**				301,966	**215,847**											
47a 47b	Lot 47	C3-SPD	**1.55** **1.6**	**3.15**				320,474	**229,077**			65,092								
48a 48b	Lot 48	C3-SPD	**1.42** **1.29**	**2.71**	532	**887**	325 du/ac			19,275	19,275									
49a 49b	Lot 49	C3-SPD	**1.07** **2.93**	**4.00**	354	**590**	150 du/ac	126,631	**90,517**	20,909	20,909	89,031				200				
50	Lot 50	C3-SPD	**1.52**	**1.52**	177	**295**	195 du/ac			10,454	10,454	31,656								
51a 51b	Dedication - fire Dedication - police	C2-SPD C2-SPD	**3.36** **1.65**	**5.01**																
52a 52b 52c 52d 52e	MLS Stadium - 25,000 seating	C3-SPD	**3.21** **2.27** **2.24** **4.21** **2.81**	**3.21** **2.27** **2.24** **4.21** **2.81**																
53	Lot 53 - open space	C2-SPD	**0.5**	**0.50**																**0.5**
56a 56b 56c 56d	Lot 56	C3-SPD	**0.56** **0.73** **0.73** **0.87**	**2.89**	332	**553**	190 du/ac			19,602	19,602	59,354								
57a 57b 57c 57d	Lot 57	R-5-SPD	**0.29** **1.12** **0.74** **0.7**	**2.85**	347	**578**	200 du/ac			20,451	20,451									**0.24**
58a 58b 58c	Lot 58	OS R-5-SPD R-5-SPD	**0.64** **0.84** **0.88**	**2.36**	277	**462**	135 du/ac			16,335	16,335									**0.58**
59a 59b 59c 59d	Lot 59	R-5-SPD	**0.63** **0.65** **0.61** **0.64**	**2.53**	296	**493**	195 du/ac			17,446	17,446									
60	Lot 60 - open space	OS	**0.18**	**0.18**																**0.18**
65	Lot 65 - open space	C3-SPD	**0.69**	**0.69**																**0.69**
68	Lot 68 - open space - great lawn	OS	**1.76**	**1.76**																**1.52**
69a 69b 69c 69d	Lot 69	C3-SPD	**1.05** **1.13** **0.95** **0.99**	**4.12**	354	**590**	140 du/ac			20,909	20,909	63,311								
70a 70b 70c 70d	Lot 70	R-5-SPD R-5-SPD OS R-5-SPD	**1.16** **1.15** **0.65** **1.38**	**4.34**	421	**702**	160 du/ac			24,829	24,829									**0.55**
71	Lot 71	R-5-SPD	**1.69**	**1.69**	199	**332**	195 du/ac			11,761	11,761									
72	Vista Park	C1-SPD	**9.28**	**9.28**																**9.28**
73a 73b	Lot 73	R-5-SPD	**1.34** **1.69**	**3.03**	300	**500**	165 du/ac			17,707	17,707									
	TOTALS		**158.69**	**158.69**	6,000	**10,000**		3,857,027	**2,757,027**	514,270	**514,270**	771,405	510,000	718,003	**0**	1,100	152,525	142,865	180,000	**27.17**

Land Use - Option 2



KEY

- Site Boundary
- Parks / Open Space
- Water
- Public Easement
- Private Street (with public access)
- Pedestrian Tunnel

LAND USES

- H-SPD
- C1-SPD
- C-2-SPD
- C3-SPD
- R-5-SPD
- T-C-SPD
- M2-SPD

N

0 100 250 500 1,000 ft

AECOM

DRAWING TITLE
Land Use - Option 2

DATE
02 June 2016

SACRAMENTO RAILYARDS

TABLE M-2
SACRAMENTO RAILYARDS
LAND USE / DENSITY ALLOCATION - RSPU Land Use Variant Scenario

updated: **5/10/2016**

LOT	DESCRIPTION	LAND USE	ACRES	Office (SF)	Retail (SF)	Flexible Mixed-Use (SF)	Hotel (Keys)	Housing Units	Historic and Cultural (SF)			Open Space (ac.)
									Retail	Flex	Museum	
1	Lot 1 - open space	C3-SPD	0.53									0.53
2a1	Lot 2a	C3-SPD	0.98	55,238	5,524	8,286		68				
2a2			0.99	55,801	5,580	8,370						
2a3			1.39	78,347	7,835	11,752						
2a4			1.08	60,874	6,087	9,131						
2b1	Lot 2b	C3-SPD	1.67	94,129	9,413	14,119		100				
2b2			1.62	91,311	9,131	13,697						
2b3			1.67	94,129	9,413	14,119						
2b4			1.56	87,929	8,793	13,189						
2c1	Lot 2c	C3-SPD	1.52	85,675	8,567	12,851		82				
2c2			2.58	145,421	14,542	21,813						
2c3			1.28	72,147	7,215	10,822						
3a	Lot 3	C3-SPD	0.94		22,216			523				
3b			0.91									
3c			0.8									
3d			0.76									
4a	Lot 4	C3-SPD	0.83	379,893	66,366	77,160	450	600				
4b			0.94									
4c			0.8									
4d			0.93									
4e			0.08									
5	Lot 5 - new parcel west of Stanford	C3-SPD	0.66									
5a	Lot 5a - Stanford St North	C3-SPD	0.64									
6a	Lot 6	C3-SPD	1.11	418,856	73,173	85,074						
6b			1.13									
6c			1.01									
6d			1.03									
7a	Lot 7	C3-SPD	0.94	340,930		69,246						
7b			0.85									
7c			0.87									
7d			0.77									
8a	Lot 8 - Transition Zone	C3-SPD	0.76	282,485		57,376						
8b			1.17									
8c			0.88									
9a	Lot 9 - Transition Zone	C3-SPD	0.85	155,854		31,656						
9b			0.83									
9c	Lot 9c - new building	C3-SPD	0.24						10,000			
10	Lot 10 - Stanford Street	C3-SPD	1.5									
12a	Lot 12	C3-SPD	0.95	175,335		35,612		277				
12b			0.81									
15a			0.77									

TABLE M-2
SACRAMENTO RAILYARDS
LAND USE / DENSITY ALLOCATION - RSPU Land Use Variant Scenario

updated: **5/10/2016**

LOT	DESCRIPTION	LAND USE	ACRES	Office (SF)	Retail (SF)	Flexible Mixed-Use (SF)	Hotel (Keys)	Housing Units	Historic and Cultural (SF)			Open Space (ac.)
									Retail	Flex	Museum	
15b 15c 15d	Lot 15	C3-SPD	0.67 0.76 0.65	526,006	69,691	106,837						
17	Lot 17 - parking garage	C3-SPD	1.74									
18	Lot 18- new building	C3-SPD	0.38						20,000			
19	Lot 19- new building	C3-SPD	0.31		7,800							
20	Lot 20 - Paint Shop (existing)	C3-SPD	1.41						56,750			
21a 21b	Lot 21 - plaza	C3-SPD	0.86 3.03							20,000		3.89
22	Lot 22 - new building	C3-SPD	0.19		6,080							
23	Lot 23	C3-SPD	0.26		8,320				10,000	40,000		
24	Car Shop #3	C3-SPD	0.61						15,075	20,000		
25	Planning Mill	C3-SPD	0.88						22,200	20,000		
26	Car Machine Shop	C3-SPD	0.46						14,500	20,000		
27	Blacksmith Shop	C3-SPD	0.87						14,000	22,865		
28	Lot 28	C3-SPD	2.32								100,000	
29	Lot 29	C3-SPD	1.81								80,000	
30	Lot 30 - open space	C3-SPD	4.77									4.77
31	Lot 31 - open space	C3-SPD	2.08									2.08
32	Lot 32 - open space	C3-SPD	0.76									0.76
33a 33b 33c 33d 33e	Lot 33	C3-SPD	0.72 1.14 1.03 1.07 0.27									0.27
34	Lot 34 - open space	C3-SPD	1.11									1.11
35	Lot 35	C3-SPD	4.98		32,017		450	543				
40	Lot 40	C3-SPD	1.86	175,335								
41	Lot 41 - Sold for AOC	C3-SPD	2.5	400,000								
42	Lot 42 - SMUD	C3-SPD	1.18									
43a 43b	Lot 43	C3-SPD	1.26 1.34	253,262				468				
44	Lot 44	C3-SPD	1.65		28,929							
45	Lot 45	C3-SPD	0.22									0.22
46a 46b	Lot 46	C3-SPD	1.93 1.45	301,966								
47a 47b	Lot 47	C3-SPD	1.55 1.6	320,474		65,092						
48a 48b	Lot 48	C3-SPD	1.53 1.4		19,275			532				
49a	Lot 49	C3-SPD	1.07	126,631	20,909	89,031	200	354				

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									Retail	Flex	Museum	
49b	~~Lot 49~~	~~C3-SPD~~	2.93	~~126,031~~	~~20,909~~	~~89,031~~	~~200~~	~~334~~				
50	Lot 50	C3-SPD	1.52		10,454	31,656		177				
51a	Dedication - fire	C2-SPD	3.36									
51b	Dedication - police	C2-SPD	1.65									
52a	Lot 52	C3-SPD	1.67		5,185	7777		175				
52b			1.26									
53	Lot 53 - open space	C2-SPD	0.5									0.5
53a	Lot 53- residential	C3-SPD	0.6		7,835	11,753		161				
53b			0.62									
53c			0.82									
53d			0.65									
54a	Lot 54	C3-SPD	1.9		8,214	12,321		219				
54b			1.77									
55a	Lot 55	C3-SPD	0.77		9,466	14,200		194				
55b			0.77									
55c			0.86									
55d			0.85									
56a	Lot 56	C3-SPD	0.51		19,602	59,354		332				
56b			0.73									
56c			0.73									
56d			0.87									
57a	Lot 57	R-5-SPD	0.69		20,451			347				
57b			0.66									
57c			0.74									
57d			0.7									
58a	Lot 58	R-5-SPD	0.51		16,335			277				
58b			0.57									
58c			0.63									
58d			0.65									
59a	Lot 59	R-5-SPD	0.63		17,446			296				
59b			0.65									
59c			0.61									
59d			0.64									
60	Lot 60 - open space	R-5-SPD	0.3									0.3
65a	Lot 65 - open space	R-5-SPD	0.1									0.1
65b			0.93									0.93
65c			0.1									0.1
66a	Lot 66	R-5-SPD	0.06									0.06
66b			0.05									0.05
66c			0.06									0.06
66d			0.05									0.05

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									Retail	Flex	Museum	
67	Lot 67 - open space	R-5-SPD	0.12									0.12
68	Lot 68 - open space	R-5-SPD	0.71									0.71
69a	Lot 69	R-5-SPD	1.32		20,909	63,311		354				
69b			1.32									
69c			0.94									
69d			0.88									
70a	Lot 70	R-5-SPD	1.24		24,829			421				
70b			1.4									
70c			0.91									
70d			0.95									
71	Lot 71	R-5-SPD	2.74		11,761			199				
72	Vista Park	C1-SPD	9.28									9.63
73a	Lot 73	R-5-SPD	2.47		17,707			300				
73b			0.73									
	TOTALS		**156.99**	**4,778,029**	**637,070**	**955,605**	**1,100**	**7,000**	**162,525**	**142,865**	**180,000**	**26**