City of
SACRAMENTO
Community Development

300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Help Line: 916-264-5011
CityofSacramento.org/dsd

FINAL MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Mitigated Negative Declaration for the following described project:

Retreat at Sacramento (P18-063). The project is located at 2601 Redding Avenue (APN 015-0033-148-0000) within the city limits of the City of Sacramento. The project includes a request to construct a 224-unit, 736-bed, student housing facility with 525 parking spaces on a 13.3-acre property within the Residential Mixed Use, Light Industrial, and Transit Overlay zones (RMX-TO and M-1-TO). The request requires Planning and Design Commission review of a Conditional Use Permit for dormitories and Site Plan and Design Review for the new buildings.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, with mitigation measures as identified in the attached Initial Study, will have a significant effect on the environment. This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required.

The Initial Study has been revised in response to comments received regarding the draft environmental document. Changes in the discussion are identified in ~~strikethrough~~ for deletions and <u>underline</u> for additions.

This Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892), and the Sacramento City Code.

A copy of this document and all supportive documentation may be reviewed or obtained at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 from 9:00 a.m. to 4:00 p.m.

Environmental Services Manager, City of Sacramento, California, a municipal corporation

By: _____

Tom Buford, Manager
Environmental Planning Services

Dated: March 1, 2019

The Retreat at Sacramento
P18-063

Initial Study/Mitigated Negative Declaration

PREPARED FOR THE
CITY OF SACRAMENTO

PREPARED BY RANEY PLANNING & MANAGEMENT, INC.
SACRAMENTO, CALIFORNIA

JANUARY 2019

THE RETREAT AT SACRAMENTO

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2035 GENERAL PLAN EIR

This IS/MND/Mitigated Negative Declaration (IS/MND) has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

This IS/MND is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this IS/MND was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the 2035 General Plan EIR and 65th Street Station Area Plan EIR.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that were consulted in the preparation of the IS/MND.

APPENDICES: Appends technical information that was referenced as attached in the preparation of the IS/MND and includes Revisions to the IS/MND and Comments and Responses.

SECTION I - BACKGROUND

Project Name and File Number:	The Retreat at Sacramento (P18-063)
Project Location:	2601 Redding Avenue Sacramento, CA 95820 Assessor's Parcel Number (APN) 015-0033-048
Project Applicant:	Jason Doornbos Retreat at Sacramento, LLC. 315 Oconee Street Athens, GA 30601 (706) 543-1910 jdoornbos@landmarkproperties.com
Project Planner:	Michael Hanebutt, Associate Planner (916) 808-7933 mhanebutt@cityofscacramento.org
Environmental Planner:	Tom Buford, Principal Planner (916) 808-7931 tbuford@cityofsacramento.org
Date Initial Study Completed:	January 2019

This IS/MND was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq*.). The Lead Agency is the City of Sacramento.

The City has prepared the attached IS/MND to review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR and 65th Street Area Plan EIR to determine their adequacy for the project and identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance (see CEQA Guidelines Sections 15177 and 15178). The IS/MND identifies new significant effects as well as mitigation measures that would reduce each such effect to a less-than-significant level. A Mitigated Negative Declaration is the appropriate CEQA document (CEQA Guidelines Section 15378(b)).

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. The mitigation monitoring plan for the 2035 General Plan, which provides references to applicable General Plan policies that reduce the environmental effects of development that may occur consistent with the 2035 General Plan, is included in the adopting resolution for the Master EIR. See City Council Resolution No. 2015-0060, beginning on page 60. The resolution is available on the City's website at:

http://www.cityofsacramento.org/Community-Development/Resources/Online-Library/2035--General-Plan

The analysis contained in this IS/MND incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811, and on the City's web site at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

All technical environmental studies utilized in preparation of this IS/MND are available for review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, California.

The City will circulate a Notice of Availability/Notice of Intent (NOA/NOI) that confirms the City's intention to adopt the Mitigated Negative Declaration, and provides dates for public comment. The NOA/NOI will be available on the City's web site set forth above.

Please send written responses to:

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
Direct Line: (916) 808-7931
tbuford@cityofsacramento.org

SECTION II - PROJECT DESCRIPTION

Introduction

This section of the IS/MND provides a description of The Redding Avenue Project (proposed project) and includes background, location, existing conditions, surrounding land uses, and project components.

Project Location

The proposed project is located at 2601 Redding Avenue on 12.95-acres in the 65th Street Station Area of the City of Sacramento, (APN 015-0033-048). The project is south of U.S. 50, east of Redding Avenue, north of San Joaquin Street, and west of the Union Pacific Railroad (UPRR) and Sacramento Regional Transit (RT) tracks (see Figure 1 and Figure 2).

Existing Conditions and Surrounding Land Uses

The project site consists of 12.95 acres and currently contains the Dorris Lumber & Moulding Company, which includes warehouse structures, office buildings, and storage facilities. On-site vegetation is sparse and includes small patches of ruderal grasses; however, approximately 77 percent of the site is overlain with impervious surfaces such as concrete and asphalt. The project site is currently designated Urban Neighborhood Low Density under the City's 2035 General Plan and zoned Mixed Use/Transit Overlay (RMX-TO).

The project site is bordered by the Lark Sacramento multi-family residential development to the south, the Element Student Living complex to the southwest, a shopping center to the west, U.S. 50 to the north, and the UPRR tracks and RT light rail line to the east.

The project site is located within the northeastern section of the 65th Street Station Area Plan identified as Inset 3; however, the 65th Street Station Area Plan does not provide a unique land use designation for the site. The goal of the 65th Street Station Area Plan is to provide a plan for the overall circulation network for the project area. The 65th Street Station Area Plan comprehensively addresses how to implement transportation and circulation improvements in the area including new streets, street widenings, street extensions, bicycle and pedestrian facilities, and grade-separated under-crossings. Figure 3 details the bicycle, pedestrian, and transit network infrastructure surrounding the project site. The 65th Street Station Area Plan encompasses the area located in the eastern part of the City and is bounded by the UPRR tracks and Folsom Boulevard to the north, Power Inn Road to the east, 14th Avenue to the south, and 59th Street to the west. The 65th Street Station Area Plan utilizes smart growth principles to support the vision of pedestrian-friendly, transit-oriented development in the 65th Street area in concurrence with previously adopted public policy, namely the Sacramento 2030 General Plan.

Project Description

The proposed project includes the development of a 224-unit multi-family residential development including a club house, maintenance building, and recreational spaces and amenities. The project site would feature various two- and three-story cottage style and garden style residential buildings surrounding a central amenity area and clubhouse.

Figure 1
Regional Project Location

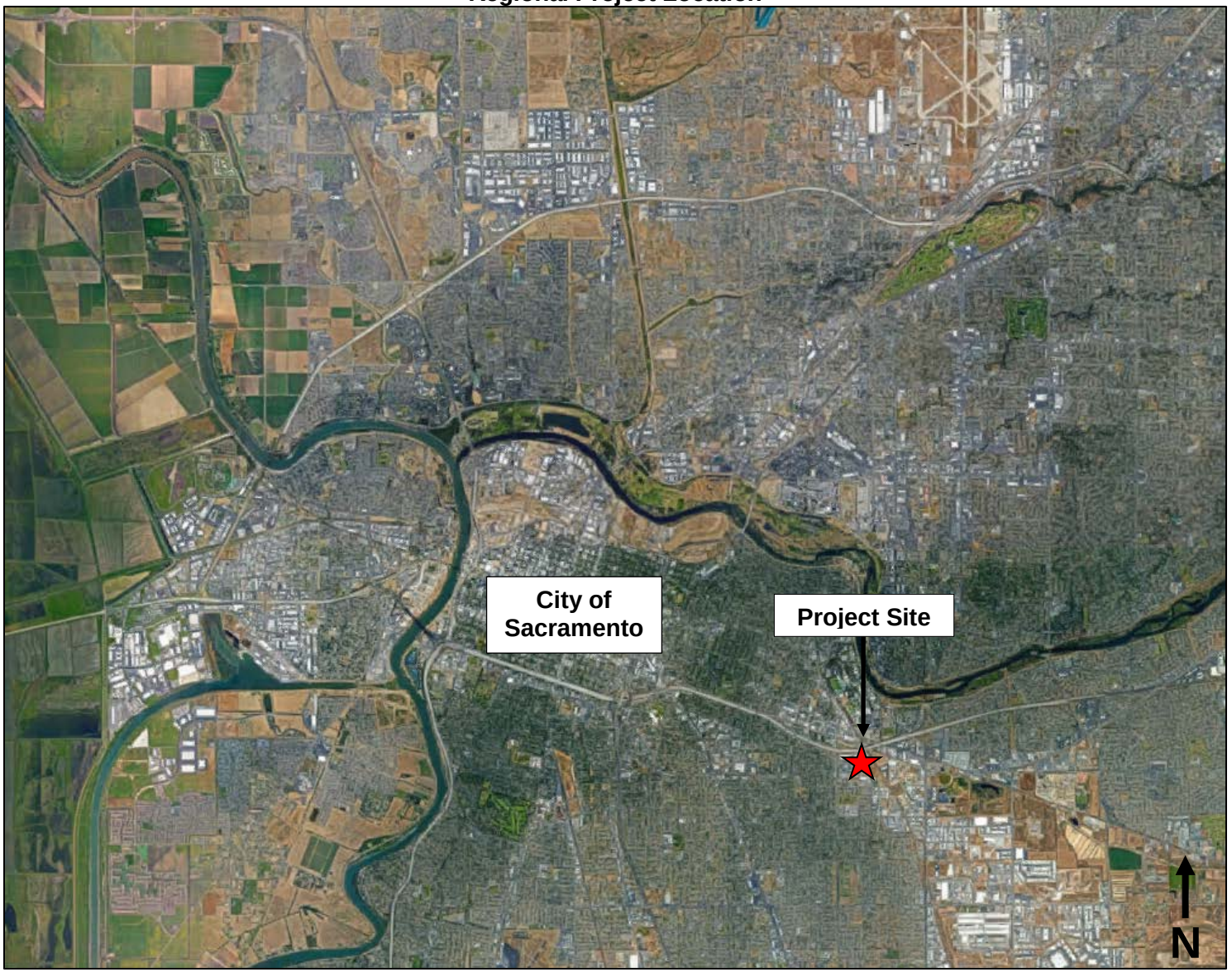


Figure 2
Aerial Vicinity Map

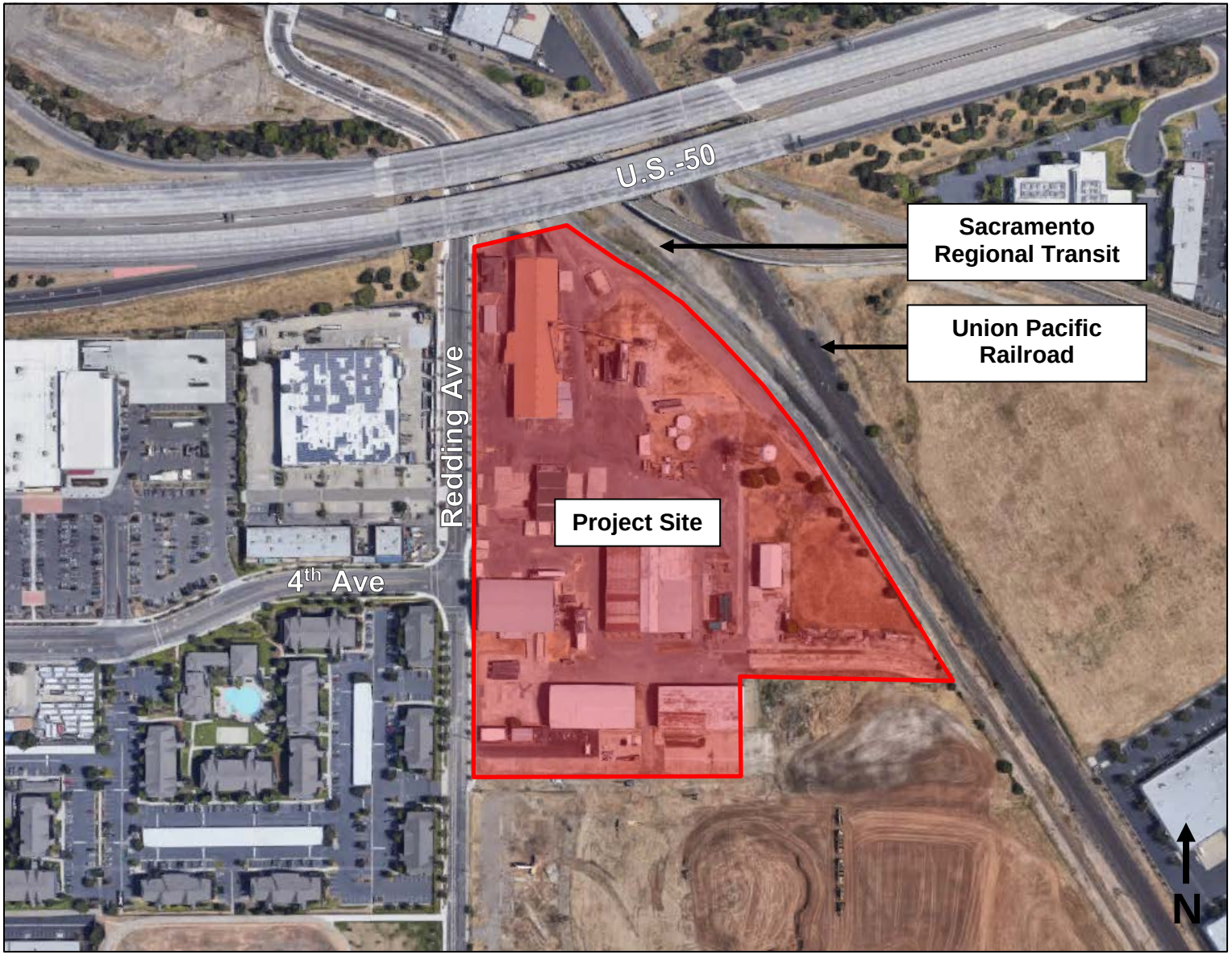
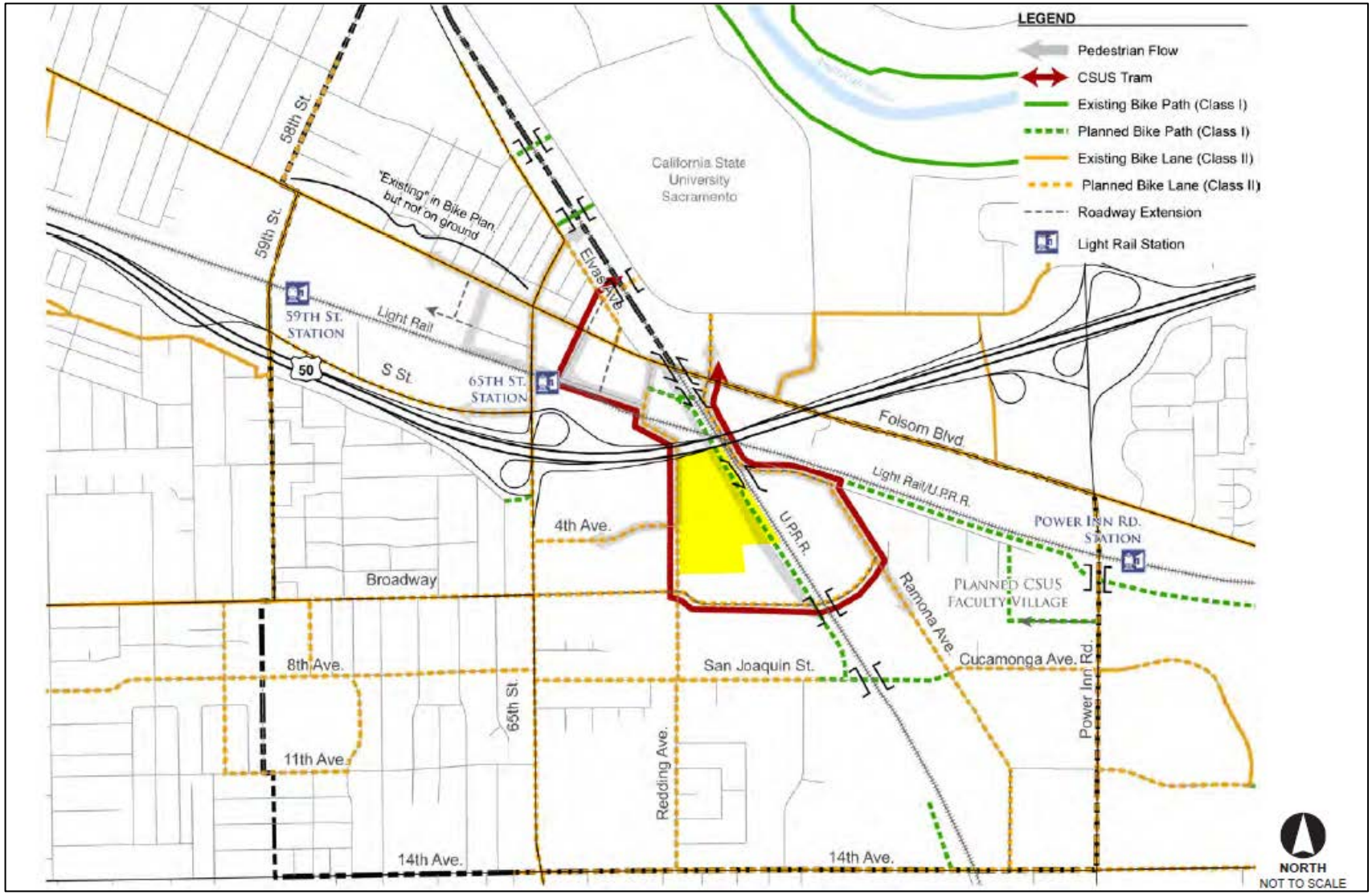


Figure 3
Scenario C Bicycle, Pedestrian, and Transit Network



Project Components

A total of 31 buildings would be developed as part of the proposed project (see Figure 4). Each building included in the proposed project would range from two to three stories high and would be comprised of two- to six-bedroom units for a total of 736 bedrooms. A total of 12 different building types are proposed, the details of which are shown in Table 1 below. The project would provide a safe and convenient student housing opportunity for a number of students in the area, specifically for California State University Sacramento (CSUS). Upon completion of the proposed project, the project site would be gated to comply with the City's gating standards and would provide 525 on-site parking spaces for future residents and guests. The project would provide residents with close proximity to the existing light rail station, transit center, and the CSUS campus.

Table 1
Building/Unit/Bed Breakdown

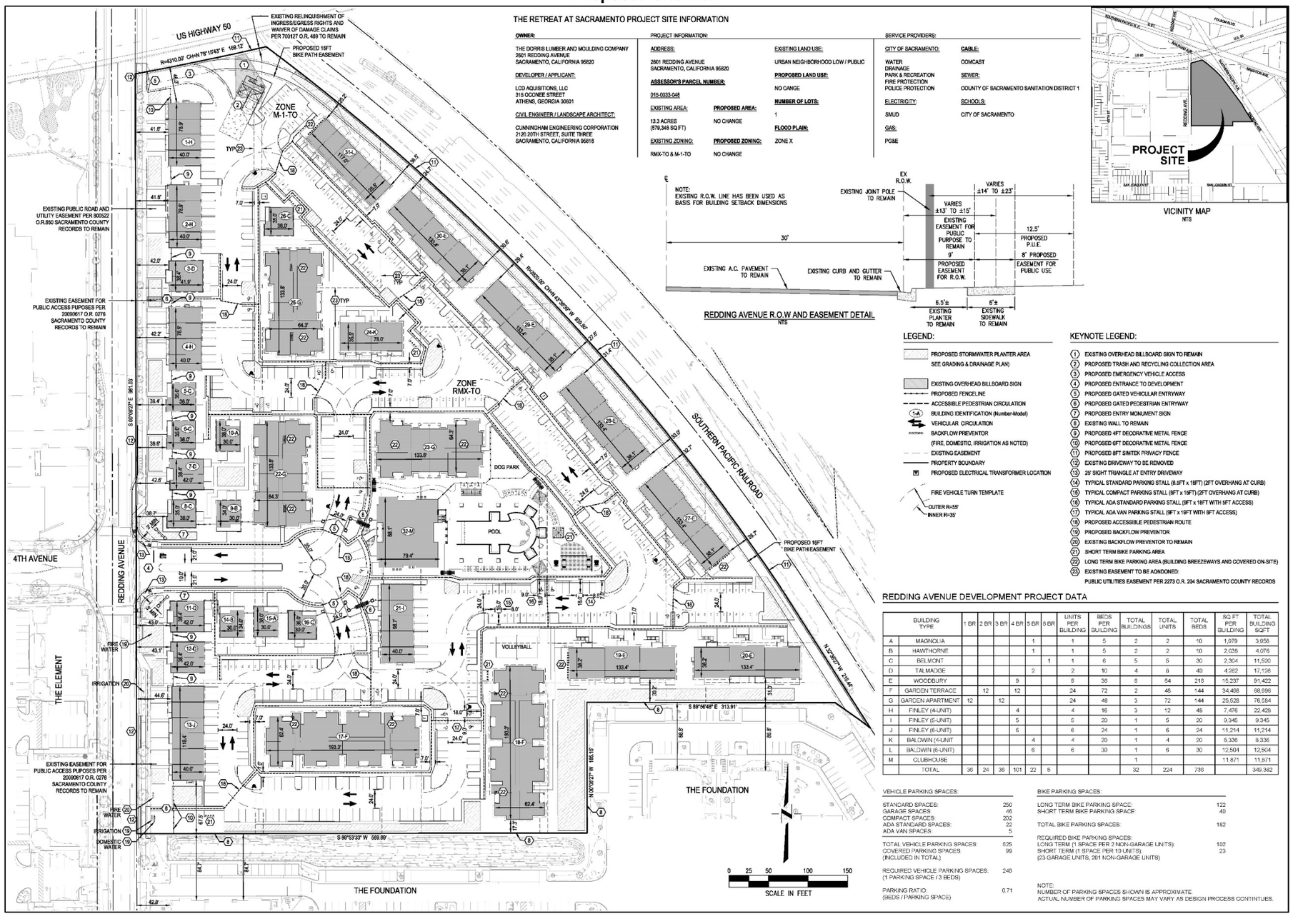
Building Type	Unit Breakdown by number of bedrooms						Units per Building	Beds per Building	Total Buildings	Total Units	Total Beds
	1BR	2BR	3BR	4BR	5BR	6BR					
Magnolia					1		1	5	2	2	10
Hawthorne					1		1	5	2	2	10
Belmont						1	1	6	5	5	30
Talmadge					2		2	10	4	8	40
Woodbury				9			9	36	6	54	216
Garden Terrace		12		12			24	72	2	48	144
Garden Apartment	12		12				24	48	3	72	144
Finley (4-unit)				4			4	16	3	12	48
Finley (5-unit)				5			5	20	1	5	20
Finley (6-unit)				6			6	24	1	6	24
Baldwin (4-unit)					4		4	20	1	4	20
Baldwin (6-unit)					6		6	30	1	6	30
Total	**12**	**24**	**36**	**101**	**22**	**5**			**31**	**224**	**736**

The design of the proposed buildings is intended to mimic the look of lower-density single-family or townhouse construction by using buildings with a smaller footprint than traditional multi-family residential developments. The proposed residences along the project frontage at Redding Avenue would consist of cottage-style homes with front porches oriented towards the street. The proposed residential parking areas would be completely contained within the interior gated portions of the project site.

Site Access and Parking

Primary access to the project site would be provided off of Redding Avenue and a secondary, gated entrance for emergency vehicle access would be located at the northwestern portion of the project site at Redding Avenue. The proposed access points would be designed to provide tenant and emergency vehicle access to private roads that would be constructed within the project site, providing access to the proposed residences. The primary Redding Avenue entrance would act as a boulevard which would terminate in a roundabout at the proposed clubhouse and contain guest parking spaces and two gated entries into the site.

Figure 4
Proposed Site Plan



THE RETREAT AT SACRAMENTO PROJECT SITE INFORMATION

OWNER:
THE DORRIS LUMBER AND MOULDING COMPANY
2601 REDDING AVENUE
SACRAMENTO, CALIFORNIA 95820

DEVELOPER / APPLICANT:
LCD AQUISITIONS, LLC
315 OCONEE STREET
ATHENS, GEORGIA 30601

CIVIL ENGINEER / LANDSCAPE ARCHITECT:
CUNNINGHAM ENGINEERING CORPORATION
2120 20TH STREET, SUITE THREE
SACRAMENTO, CALIFORNIA 95818

PROJECT INFORMATION:

ADDRESS:
2601 REDDING AVENUE
SACRAMENTO, CALIFORNIA 95820

ASSESSOR'S PARCEL NUMBER:
015-0333-048

EXISTING AREA: 13.3 ACRES (579,348 SQ FT)
PROPOSED AREA: NO CHANGE

EXISTING ZONING: RMX-TO & M-1-TO
PROPOSED ZONING: NO CHANGE

EXISTING LAND USE: URBAN NEIGHBORHOOD LOW / PUBLIC
PROPOSED LAND USE: NO CANGE
NUMBER OF LOTS: 1
FLOOD PLAIN: ZONE X

SERVICE PROVIDERS:

CITY OF SACRAMENTO:	CABLE:
WATER	COMCAST
DRAINAGE	SEWER:
PARK & RECREATION	
FIRE PROTECTION	
POLICE PROTECTION	COUNTY OF SACRAMENTO SANITATION DISTRICT 1
ELECTRICITY:	SCHOOLS:
SMUD	CITY OF SACRAMENTO
GAS:	
PG&E	

VICINITY MAP
NTS

REDDING AVENUE R.O.W AND EASEMENT DETAIL
NTS

LEGEND:
- PROPOSED STORMWATER PLANTER AREA (SEE GRADING & DRAINAGE PLAN)
- EXISTING OVERHEAD BILLBOARD SIGN
- PROPOSED FENCELINE
- ACCESSIBLE PEDESTRIAN CIRCULATION
- (1-A) BUILDING IDENTIFICATION (Number-Model)
- VEHICULAR CIRCULATION
- BACKFLOW PREVENTOR (FIRE, DOMESTIC, IRRIGATION AS NOTED)
- EXISTING EASEMENT
- PROPERTY BOUNDARY
- PROPOSED ELECTRICAL TRANSFORMER LOCATION
- FIRE VEHICLE TURN TEMPLATE (OUTER R=55' INNER R=35')

KEYNOTE LEGEND:
1. EXISTING OVERHEAD BILLBOARD SIGN TO REMAIN
2. PROPOSED TRASH AND RECYCLING COLLECTION AREA
3. PROPOSED EMERGENCY VEHICLE ACCESS
4. PROPOSED ENTRANCE TO DEVELOPMENT
5. PROPOSED GATED VEHICULAR ENTRYWAY
6. PROPOSED GATED PEDESTRIAN ENTRYWAY
7. PROPOSED ENTRY MONUMENT SIGN
8. EXISTING WALL TO REMAIN
9. PROPOSED 4FT DECORATIVE METAL FENCE
10. PROPOSED 6FT DECORATIVE METAL FENCE
11. PROPOSED 8FT SIMTEK PRIVACY FENCE
12. EXISTING DRIVEWAY TO BE REMOVED
13. 25' SIGHT TRIANGLE AT ENTRY DRIVEWAY
14. TYPICAL STANDARD PARKING STALL (8.5FT x 18FT) (2FT OVERHANG AT CURB)
15. TYPICAL COMPACT PARKING STALL (8FT x 15FT) (2FT OVERHANG AT CURB)
16. TYPICAL ADA STANDARD PARKING STALL (8FT x 18FT WITH 5FT ACCESS)
17. TYPICAL ADA VAN PARKING STALL (8FT x 18FT WITH 8FT ACCESS)
18. PROPOSED ACCESSIBLE PEDESTRIAN ROUTE
19. PROPOSED BACKFLOW PREVENTOR
20. EXISTING BACKFLOW PREVENTOR TO REMAIN
21. SHORT TERM BIKE PARKING AREA
22. LONG TERM BIKE PARKING AREA (BUILDING BREEZEWAYS AND COVERED ON-SITE)
23. EXISTING EASEMENT TO BE AONDONED: PUBLIC UTILITIES EASEMENT PER 2273 O.R. 204 SACRAMENTO COUNTY RECORDS

REDDING AVENUE DEVELOPMENT PROJECT DATA

	BUILDING TYPE	1 BR	2 BR	3 BR	4 BR	5 BR	6 BR	UNITS PER BUILDING	BEDS PER BUILDING	TOTAL BUILDINGS	TOTAL UNITS	TOTAL BEDS	SQ FT PER BUILDING	TOTAL BUILDING SQFT
A	MAGNOLIA					1		1	5	2	2	10	1,979	3,958
B	HAWTHORNE					1		1	5	2	2	10	2,038	4,076
C	BELMONT						1	1	6	5	5	30	2,304	11,520
D	TALMADGE					2		2	10	4	8	40	4,282	17,128
E	WOODBURY				9			9	38	6	54	228	15,237	91,422
F	GARDEN TERRACE		12		12			24	72	2	48	144	34,498	68,996
G	GARDEN APARTMENT	12		12				24	48	3	72	144	25,528	76,584
H	FINLEY (4-UNIT)				4			4	16	3	12	48	7,476	22,428
I	FINLEY (5-UNIT)				5			5	20	1	5	20	9,345	9,345
J	FINLEY (6-UNIT)				6			6	24	1	6	24	11,214	11,214
K	BALDWIN (4-UNIT					4		4	20	1	4	20	8,336	8,336
L	BALDWIN (6-UNIT)					6		6	30	1	6	30	12,504	12,504
M	CLUBHOUSE									1			11,671	11,671
	TOTAL	36	24	36	101	22	5			32	224	736		349,382

VEHICLE PARKING SPACES:

STANDARD SPACES:	250
GARAGE SPACES:	46
COMPACT SPACES:	202
ADA STANDARD SPACES:	22
ADA VAN SPACES:	5
TOTAL VEHICLE PARKING SPACES:	525
COVERED PARKING SPACES: (INCLUDED IN TOTAL)	99
REQUIRED VEHICLE PARKING SPACES: (1 PARKING SPACE / 3 BEDS)	246
PARKING RATIO: (BEDS / PARKING SPACE)	0.71

BIKE PARKING SPACES:

LONG TERM BIKE PARKING SPACE:	122
SHORT TERM BIKE PARKING SPACE:	40
TOTAL BIKE PARKING SPACES:	162
REQUIRED BIKE PARKING SPACES:	
LONG TERM (1 SPACE PER 2 NON-GARAGE UNITS): (23 GARAGE UNITS, 201 NON-GARAGE UNITS)	102
SHORT TERM (1 SPACE PER 10 UNITS):	23

NOTE:
NUMBER OF PARKING SPACES SHOWN IS APPROXIMATE.
ACTUAL NUMBER OF PARKING SPACES MAY VARY AS DESIGN PROCESS CONTINTUES.

The proposed project would include a total of 525 parking spaces. 479 spaces would be located in a surface lot with 92 spaces located beneath covered carport structures. In addition, the Finley building type would include two-car garages for each unit and an additional two tandem parking spaces behind each garage for a total of 46 garage spaces. The project would achieve a parking ratio of 0.71 spaces/beds. Existing street parking along both sides of Redding Avenue would also be available for future tenant use, but has not been included within the parking calculations for the proposed project. A total of 162 bicycle parking spaces, including both short and long-term spaces, would also be included as part of the proposed project.

Alternative Transportation

A private shuttle with routes to and from the CSUS campus would run every weekday from 7:00 AM to 7:00 PM in 30-minute intervals while school is in session and would be available to residents free of charge. It should be noted that the property owner/manager would reserve the right to modify the shuttle schedule based on ridership demands, school schedule, and any policy adopted by CSUS that may impact this service.

Bicycle Path

The proposed project includes a 16-foot-wide bicycle path easement which would be encompassed within the northern and eastern borders of the project site for the construction of a future bicycle path. The future bicycle path would be consistent with Scenario C-Prime (see Figure 3), the preferred circulation plan for the 65th Street Station Area Plan, the Sacramento 2035 General Plan, and the 2016 Bicycle Master Plan.

Utilities

The proposed project would include a swing-tie connection of the existing eight-inch water main within the Redding Avenue right-of-way (ROW) to the existing 12-inch water main within the 4th Avenue ROW. Two connections to City infrastructure along the Redding Avenue ROW would serve the water needs of the proposed project. One connection would provide water for the irrigation needs of the project and the second connection would provide water for domestic use and be metered for each of the proposed residential units. A separate water service for fire flow water would be provided to serve the needs of the proposed project.

A wastewater connection for the proposed project would be made to an existing eight-inch sewer main located within the Redding Avenue ROW. Stormwater treatment would occur on-site and be compliant with the City's hydraulic model. The proposed project would connect to an existing 30-inch storm drain located in the Redding Avenue ROW. Additionally, bioretention basins, that would capture stormwater prior to reintroducing the captured water into the City's municipal system, would be incorporated throughout the project site.

Landscaping

Landscape design for the proposed project would incorporate native and adapted drought-tolerant plants and trees along with a water-efficient irrigation system designed for low water consumption. On-site stormwater treatment would be incorporated into the landscaping through the use of bioretention areas. Shade trees would be planted throughout the project site. Most of the existing trees along the project frontage at Redding Avenue would be retained except for six trees that are currently located at the proposed vehicular access point at 4th Avenue near the secondary site access at the northern perimeter of the site.

Four-foot-tall decorative metal fences would be placed between buildings along the project frontage at Redding Avenue and additional eight-foot-tall privacy fencing would be constructed along the northern, eastern, and southern project site boundaries to increase security and reduce noise from adjacent sources such as U.S. 50, UPRR and RT tracks.

Project Approvals

The project includes the following entitlement approvals from the City of Sacramento:

- Approval of IS/MND and Mitigation Monitoring and Reporting Plan;
- Conditional Use Permit; and
- Approval of Site Plan and Design Review.

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES AND ENERGY

Introduction

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable General Plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the IS/MND identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and energy, and the effect of the proposed project on these resources.

Discussion

Land Use and Planning

The proposed project consists of constructing a 224-unit multi-family housing development. The project site is zoned Residential Mixed-Use, Transit Overlay (RMX-TO), the purposed of which is to allow a mix of residential and commercial uses that include the proposed project, hotels and motels, and to preserve the residential character of neighborhoods while encouraging the development of neighborhood-oriented ground-floor retail and service uses. The project site is designated Urban Neighborhood Low Density by the 2035 General Plan, which allows for moderate-intensity urban housing uses and neighborhood support uses. The project is consistent with the City of Sacramento 2035 General Plan, South 65th Street Area Plan EIR, and 65th Street Station Area Plan and EIR. The project would not modify the existing land use designation of the site and does not involve any amendments to the existing land use or zoning designations. Upon project completion, the proposed project site would primarily operate as housing for CSUS students, and other local students. The project site is an infill development location, and is within an existing built out urban area; therefore, the project would not physically divide an established community. The proposed project site is not currently included in any habitat conservation plan or natural community conservation plan.

The proposed project would provide 736 beds among 31 buildings, and 224 residential units. 525 total parking spaces would be provided as part of the project, constituting a ratio of 0.71 parking spaces per bed. The project exceeds the City's minimum requirement of 0.5 spaces per dwelling unit for multi-family buildings in an "Urban" Parking District and with Chapter 17.64 (Parking Regulations) of the City of Sacramento Zoning Code.

Population and Housing

The proposed project site is located within a developed area of the eastern portion of Sacramento approximately one mile south of CSUS. Surrounding land uses include light-industrial, multi-family residential, park, and commercial uses. The proposed project consists of developing a 224-unit student housing complex. The project is consistent with the type and intensity of use contemplated in the City's General Plan, and was analyzed in the associated Master EIR. The physical impacts associated with the implementation of the proposed project is addressed throughout this IS/MND. The project site is currently comprised of various warehouses and office buildings used by the Dorris Lumber & Moulding Company. Implementation of the proposed project would not displace substantial numbers of existing housing units or people and construction or replacement of housing elsewhere would not be required for the project.

Agriculture and Forest Resources

The proposed project site is located within an urbanized area, which includes surrounding residential and commercial development. Agricultural activities do not currently occur within the vicinity of the project site. In addition, the area does not include land that is designated as Prime Farmland, nor is the land under a Williamson Act contract. Therefore, the proposed project would have no impact on agricultural resources.

Energy

The buildings associated with the proposed project would be subject to Titles 20 and 24 of the California Code of Regulations, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes goals (see 2035 General Plan Energy Resources Goal U 6.1.1) and related policies to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential developers, coordination with local utility providers, and recruitment of businesses that research and promote energy conservation and efficiency.

The Master EIR discussed energy conservation and relevant General Plan policies in Section 6.3 (page 6-3). The discussion concluded that with implementation of the General Plan policies and energy regulation (e.g., Title 24), development allowed in the General Plan would not result in the inefficient, wasteful, or unnecessary consumption of energy.

The Master EIR concluded that implementation of State regulations, coordination with energy providers, and implementation of General Plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level. The proposed project would be consistent with the type and intensity of development anticipated for the site in the General Plan; and meet the energy efficiency standards required by Title 24; therefore, the project would not result in a significant impact related to energy.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS Would the proposal: A) Create a source of glare that would cause a public hazard or annoyance?			X
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?			X
C) Substantially degrade the existing visual character of the site or its surroundings?			X

Environmental Setting

The proposed project is located at 2601 Redding Avenue, within the City of Sacramento's 65th Street Station Area Plan, south of CSUS. The site is bordered by U.S. 50 to the north, commercial development to the west, the Element Student Living apartment complex to the southwest across Redding Avenue, the Lark Sacramento apartment complex to the south, and the UPRR and RT tracks to the east. The project site is currently developed with several industrial and office buildings associated with the Dorris Lumber & Moulding Company as well as paved parking, outdoor supply storage areas, and gravel driveways. Public views of the project site include views from motorists driving on U.S. 50 to the north, to the north and west from the RT tracks, as well as motorists, bicyclists, and pedestrians travelling along Redding Avenue at the project site frontage. Private views of the site from the existing two-story apartment complex to the south would be obscured by design elements along the perimeter of the complex such as the proposed eight-foot privacy fence.

Existing sources of light and glare include, but are not limited to, the existing on-site development associated with the Dorris Lumber and Moulding Company, headlights from vehicles driving on Redding Avenue and exterior lighting associated with the commercial development to the west of the project site. The portion of U.S. 50 located north of the project site is not designated as a scenic highway. Therefore, the project site does not contain scenic resources, is not located in an area designated as a scenic resource or vista and is not visible from any State Scenic Highways.[1]

Standards of Significance

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the CEQA Guidelines, thresholds of significance adopted by the City in applicable General Plans and previous environmental documents, and professional judgment. A significant impact related to aesthetics would occur if the proposed project would:

- Create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors; or

[1] California Department of Transportation. *California Scenic Highway Mapping System, Sacramento County*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed September 2018.

- Substantially interfere with an important scenic resource or substantially degrade the view of an existing scenic resource.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR described the existing visual conditions in the City of Sacramento, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for light and glare (Impact 4.13-1) and concluded that impacts would be less than significant.

Answers to Checklist Questions

Questions A and B

According to the Master EIR, the City of Sacramento is mostly built out, and a large amount of widespread, ambient light from urban uses already exists. New development permitted under the 2035 General Plan would add sources of light that are similar to the existing urban light sources from any of the following: exterior building lighting, new street lighting, parking lot lights, and headlights of vehicular traffic. Sensitive land uses would generally be residential uses, especially single- and multi-family residential uses. Sensitive land uses in close proximity to the project site would be the Lark Sacramento student housing complex directly south of the project site and the Element Student Living complex located southwest of the project site. The potential new sources of light associated with development and operation of the proposed project would be similar to the current urban setting in amount and intensity of light and the day or nighttime views of adjacent sensitive land uses would not be significantly affected.

New development allowed under the 2035 General Plan would be subject to General Plan policies, building codes, and design review; therefore, the introduction of substantially greater intensity or dispersal of light would not occur. With an emphasis on infill development in the General Plan, additional light sources would be primarily concentrated within existing, well-lit areas of the City and would be similar to the existing character of urban lighting. Given that the proposed project would be consistent with the project site's existing Urban Neighborhood Low Density land use designation, introduction of new sources of light and glare to the site has been previously addressed in the Master EIR.

The Visual Resources section of the Master EIR addresses lighting and glare standards for development projects. Policy ER 7.1.3: Lighting requires the City to minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare. In addition, Policy ER 7.1.4: Reflective Glass prohibits new development from resulting in any of the following: (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors; (2) using mirrored glass; (3) using black glass that exceeds 25 percent of any surface of a building; (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building; and (5) using exposed concrete that exceeds 50 percent of any building. The proposed project would comply with the aforementioned General Plan policies, which would be ensured through the Site Plan and Design Review process.

Based on the above, while the proposed project would introduce new sources of light and glare to the project site, the type and intensity of light and glare would be similar to that of the

surrounding multi-family residential development and has been anticipated for the site per the 2035 General Plan and analyzed in the Master EIR. The proposed project would comply with all applicable General Plan policies related to minimizing light and glare. Therefore, the proposed project would have ***no additional significant environmental effects*** regarding sources of glare.

Question C

The City of Sacramento is primarily built out; however, new development associated with the 2035 General Plan could result in changes to important scenic resources as seen from visually sensitive locations. As described above under "Standards of Significance" important existing scenic resources include major natural open space features such as the American River and Sacramento River, including associated parkways. Another important scenic resource is the State Capitol (as defined by the Capitol View Protection Ordinance). Other potential important scenic resources include important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers.

Visually-sensitive public locations include viewpoints where a change to the visibility of an important scenic resource, or a visual change to the resource itself, would affect the general public. Visually-sensitive public locations include public plazas, trails, parks, parkways, or designated, publicly available and important scenic corridors (e.g., Capitol View Protection Corridor).

Policy ER 7.1.1 would guide the City to avoid or reduce substantial adverse effects of new development on views from public places to the Sacramento and American rivers and adjacent greenways, landmarks, and the State Capitol along Capitol Mall. In addition, Policy ER 7.1.2, states that the City shall require new development be located and designed to visually complement the natural environment/setting when near the Sacramento and American Rivers, and along streams. With adherence to these policies, buildout of the 2035 General Plan would not substantially alter views of important scenic resources from visually sensitive areas. According to the Master EIR, with buildout of the 2035 General Plan, impacts related to interference with important existing scenic resources or degrading views of important existing scenic resources, as seen from a visually sensitive, public location would be less than significant.

The nearest significant visual resource is the American River, which is located 0.75-mile northwest of the project site and is screened from view of the project site by U.S. 50 and the CSUS campus. Other significant visual resources such as the Sacramento River, the State Capitol, or public trails are not located in the immediate vicinity of the project site. As such, the proposed project would not result in any impacts related to changing the visual character of such resources. The nearest public parks are Mae Fong Park and Orchard Park, located southeast of the project site. Mae Fong park has existing views of the southeast corner of the project site.

The project site has been previously disturbed as a result of construction of buildings and operations associated with the Dorris Lumber & Moulding Company. The site is designated Urban Neighborhood Low Density by the City's General Plan, which allows for moderate-intensity urban housing uses and neighborhood support uses. The site does not contain any scenic resources that would be degraded by the proposed project and the type and intensity of development that is proposed would be visually compatible with the existing multi-family residential development located immediately adjacent to the southern boundary of the project site as well as to the east, across the UPRR and RT tracks. Furthermore, the proposed project would be consistent with the site's existing land use and zoning designations.

City staff would conduct a Site Plan and Design Review prior to approval of the proposed project. As noted in Chapter 17.808 of the Sacramento City Code, the purpose of Site Plan and Design Review is to ensure that the physical aspects of development projects are consistent with the General Plan and any other applicable specific plans or design guidelines, that projects are high quality and compatible with surrounding development, among other considerations. Consequently, Site Plan and Design Review for the proposed project would ensure that the proposed development would not result in a substantial degradation in the existing visual character of the project site.

As such, potential impacts to the visual character of the site and the site's surroundings associated with development of the site with multi-family residential uses has been previously analyzed in the Master EIR, and the proposed project would have ***no additional significant environmental effects*** beyond what was anticipated for the site in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Aesthetics. Therefore, implementation of the proposed project would have no additional significant environmental effects beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY *Would the proposal:* A) Result in construction emissions of NO_x above 85 pounds per day?			X
B) Result in operational emissions of NO_x or ROG above 65 pounds per day?			X
C) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X
D) Result in any increase in PM_{10} concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year?			X
E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?			X
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?			X
G) Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?			X
H) Conflict with the Climate Action Plan?			X

Environmental Setting

The environmental setting for the proposed project, including the existing climate and meteorological conditions, existing air quality conditions, and greenhouse gas (GHG) emissions, is discussed below.

Climate and Meteorology

The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is approximately 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the “Delta breeze” that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and

the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

Air Quality Conditions

The SVAB is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Federal and State air quality standards have been established for six common air pollutants, known as criteria pollutants, because the criteria air pollutants could be detrimental to human health and the environment. The criteria pollutants include particulate matter, ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides, and lead. At the federal level, Sacramento County is designated as severe nonattainment for the 8-hour ozone standard, nonattainment for the 24-hour $PM_{2.5}$ standard, and attainment or unclassified for all other criteria pollutants. At the State level, the area is designated as a serious nonattainment area for the 1-hour ozone standard, nonattainment for the 8-hour ozone standard, nonattainment for the particulate matter 10 microns in diameter (PM_{10}) and particulate matter 2.5 microns in diameter ($PM_{2.5}$) standards, and attainment or unclassified for all other State standards.

Nearly all development projects in the Sacramento region have the potential to generate air pollutants that may increase the difficultly of attaining federal and State Ambient Air Quality Standards (AAQS). Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. In order to help public agencies evaluate air quality impacts, the SMAQMD has developed the *Guide to Air Quality Assessment in Sacramento County*.[2] The SMAQMD's guide includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors, as the area is under nonattainment for the federal and State ozone AAQS. The SMAQMD's guide also includes screening criteria for localized CO emissions and thresholds for new stationary sources of toxic air contaminants (TACs).

In addition to criteria air pollutants, TACs are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different TACs. In terms of health risks, the most volatile contaminants are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene and acetaldehyde. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Public exposure to TACs can result from emissions from normal operations as well as accidental releases. Health risks from

[2] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County*. May 2018. Available at: http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools. Accessed August 2018.

TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death.

Naturally occurring asbestos (NOA) was identified as a TAC in 1986 by CARB. Earth disturbance activity could result in the release of NOA to the air. NOA is located in many parts of California and is commonly associated with ultramafic rocks. According to mapping prepared by the California Geological Survey, the only area within Sacramento County that is likely to contain NOA is eastern Sacramento County. The project site is not located in an area identified as likely to contain NOA.

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors to the project site would be the multi-family residences located approximately 65 feet west of the project site across Redding Avenue, within the Element Student Living development and the multi-family residences located approximately 80 feet south of the project site.

Greenhouse Gas (GHG) Emissions

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

A number of regulations currently exist related to GHG emissions, predominantly Assembly Bill (AB 32), Executive Order S-3-05, and Senate Bill (32). AB 32 sets forth a statewide GHG emissions reduction target of 1990 levels by 2020. Executive Order S-3-05 sets forth a transitional reduction target of 2000 levels by 2010, the same target as AB 32 of 1990 levels by 2020, and further builds upon the AB 32 target by requiring a reduction to 80 percent below 1990 levels by 2050. SB 32 also builds upon AB 32 and sets forth a transitional reduction target of 40 percent below 1990 levels by 2030. In order to implement the statewide GHG emissions reduction targets, local jurisdictions are encouraged to prepare and adopt area-specific GHG reduction plans and/or thresholds of significance for GHG emissions.

The City adopted the City of Sacramento Climate Action Plan (CAP) on February 14, 2012 to comply with AB 32. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, of the General Plan Update. Appendix B includes all citywide policies and programs that are supportive of reducing GHG emissions.

Standards of Significance

For purposes of this IS/MND, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies:

- Construction emissions of NO_x above 85 pounds per day;
- Operational emissions of NO_x or ROG above 65 pounds per day;
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Any increase in PM_{10} concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year;
- CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

A project is considered to have a significant effect relating to greenhouse gas emissions if the project fails to satisfy the requirements of the City's CAP.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 4.2.

Policies in the 2035 General Plan Environmental Resources Element were identified as mitigating potential effects of development that could occur under the 2035 General Plan. Accordingly, Policy ER 6.1.1 calls for the City to work with the California Air Resources Board and the SMAQMD to meet State and federal air quality standards; Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.4 and ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of TACs as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.4, requiring coordination with SMAQMD in evaluating exposure of sensitive receptors to TACs, and impose appropriate conditions on projects to protect public health and safety, as well as Policy LU 2.7.5 requiring extensive landscaping and trees along freeways and design elements that provide proper filtering, ventilation, and exhaust of vehicle air emissions from buildings.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis.

Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11, and ER 6.1.15. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 CAP, which demonstrates compliance mechanisms for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.9 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emissions reduction goals. Policy ER 6.1.8 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emissions reductions goal. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this IS/MND (CEQA Guidelines Section 15150).

The Master EIR identified numerous policies included in the 2035 General Plan that addressed greenhouse gas emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 et seq. The Master EIR is available for review at the offices of the Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA during normal business hours, and is also available online at: http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.

Answers to Checklist Questions

Question A

In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the SMAQMD has established recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors (i.e., reactive organic compounds [ROG] and oxides of nitrogen [NO_X], as the area is under nonattainment for ozone. The SMAQMD's recommended thresholds of significance for ROG and NO_X are in units of pounds per day (lbs/day) and are presented in Table 2.

Table 2
SMAQMD Thresholds of Significance for Ozone Precursors

Pollutant	Construction Thresholds	Operational Thresholds
NO_X	85 lbs/day	65 lbs/day
ROG	-	65 lbs/day

Source: Sacramento Metropolitan Air Quality Management District, SMAQMD Thresholds of Significance Table, May 2015, available at: http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf, accessed November 2018.

In order to determine whether the proposed project would result in ozone emissions in excess of the applicable thresholds of significance presented above, the proposed project's construction-related and operational emissions have been estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be input into the model. Accordingly,

vehicle trip generation rates within the model were updated based on estimates prepared for the project by DKS Associates.[3] In addition, the following assumptions were applied to the model:

- Prior to development of the project site, 115,364 square feet (sf) of existing on-site structures would be demolished;
- Approximately 514 cubic yards (CY) of soil export associated with off-haul of contaminated soils would be required; and
- Approximately 17,514 CY of soil import would be required, including 44 CY to replace off-hauled soils.

The results of the proposed project's emissions estimates were compared to the thresholds of significance above in order to determine the associated level of impact. All CalEEMod modeling results are included as Appendix A to this IS/MND.

Construction Emissions

During construction of the proposed project, various types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Because construction equipment emits relatively low levels of ROG and because ROG emissions from other construction processes (e.g., asphalt paving, architectural coatings) are typically regulated by SMAQMD, SMAQMD has not adopted a construction emissions threshold for ROG. The SMAQMD has, however, adopted a construction emissions threshold for NO_X, as shown in Table 2, above.

According to the CalEEMod results, the proposed project is estimated to result in maximum daily construction emissions of NO_X as shown in Table 3.

Table 3
Maximum Unmitigated Project Construction NO_X Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Threshold of Significance (lbs/day)
NO_X	78.90	85
Source: CalEEMod, November 2018 (see Appendix A).		

As shown in the table, the proposed project's maximum unmitigated construction-related NO_X emissions would be below the applicable threshold of significance of 85 lbs/day. In addition, all projects under the jurisdiction of SMAQMD are required to comply with all applicable SMAQMD rules and regulations (a complete list of current rules is available at www.airquality.org/rules). Rules and regulations related to construction include, but are not limited to, Rule 201 (General Permit Requirements), Rule 402 (Nuisance), Rule 403 (Fugitive Dust), Rule 404 (Particulate Matter), Rule 414 (Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 British Thermal Units per Hour), Rule 417 (Wood Burning Appliances), Rule 442 (Architectural Coatings), Rule 453 (Cutback and Emulsified Asphalt Paving Materials), Rule 460 (Adhesives and Sealants), Rule 902 (Asbestos) and California Code of Regulations (CCR) requirements related to the registration of portable equipment and anti-idling. Furthermore, all projects are required to implement SMAQMD's Basic Construction Emission Control Practices (BCECP).

[3] DKS Associates. *Retreat at Sacramento, Vehicular Trip Generation Estimates.* August 20, 2018.

Compliance with SMAQMD rules and regulations and BCECP would ensure that construction emissions are minimized to the extent practicable.

Based on the above, impacts related to the proposed project's construction emissions of NO_X would be less-than-significant. Accordingly, the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Question B

Operation of the proposed project would result in various sources of emissions including emissions related to natural gas combustion for heating mechanisms, landscape maintenance equipment exhaust, consumer products (e.g., deodorants, cleaning products, spray paint, etc.), and mobile sources. Emissions from mobile sources, such as future resident vehicle trips to and from the project site, would make up the majority of the emissions related to project operations.

The proposed project's estimated operational emissions are presented in Table 4. As shown in the table, the proposed project would not result in operational emissions of NO_X or ROG above the 65 lbs/day SMAQMD threshold of significance. Considering that the proposed project would not result in a project-specific impact related to operational emissions of criteria pollutants, operation of the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Table 4
Maximum Project Operational NO_X and ROG Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Thresholds of Significance (lbs/day)
NO_X	20.80	65
ROG	12.54	65

Source: CalEEMod, November 2018 (see Appendix A).

Question C

SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. As future attainment of AAQS is a function of successful implementation of SMAQMD's planning efforts, according to the SMAQMD Guide, by exceeding the SMAQMD's project-level thresholds for construction or operational emissions, a project could contribute to the region's nonattainment status for ozone and PM emissions and could be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

As discussed above and below, the proposed project would result in construction and operational emissions below all applicable SMAQMD thresholds of significance. Therefore, the proposed project would not be considered to contribute to the region's nonattainment status for ozone or PM emissions and would not conflict with or obstruct implementation of the SMAQMD's air quality planning efforts. Accordingly, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and a less-than-significant impact would occur. ***No additional significant environmental effects*** beyond what was previously analyzed in the Master EIR would result from implementation of the proposed project.

Question D

As the region is designated nonattainment for PM_{10} and $PM_{2.5}$, SMAQMD has adopted mass emissions thresholds of significance for PM_{10} and $PM_{2.5}$, which are presented in Table 5.

Table 5
SMAQMD Thresholds of Significance for PM_{10} and $PM_{2.5}$

Pollutant	Construction Thresholds (lbs/day)	Operational Thresholds (lbs/day)	Operational Thresholds (tons/yr)
PM_{10}	80	80	14.6
$PM_{2.5}$	82	82	15

Source: SMAQMD, May 2015.

In order to determine whether the proposed project would result in PM emissions in excess of the applicable thresholds of significance presented above, the proposed project's construction and operational PM_{10} and $PM_{2.5}$ emissions have been estimated using CalEEMod. According to the CalEEMod results, the proposed project would result in PM_{10} and $PM_{2.5}$ emissions as shown in Table 6. As presented in the table, the proposed project's estimated emissions of PM_{10} and $PM_{2.5}$ would be well below the applicable SMAQMD thresholds of significance.

Table 6
Maximum Unmitigated Project Emissions of PM_{10} and $PM_{2.5}$

Pollutant	Project Construction Emissions (lbs/day)	Construction Thresholds (lbs/day)	Project Operational Emissions (lbs/day)	Operational Thresholds (lbs/day)	Project Operational Emissions (tons/yr)	Operational Thresholds (tons/yr)
PM_{10}	20.59	80	14.34	80	2.52	14.6
$PM_{2.5}$	12.17	82	4.05	82	0.71	15

Source: CalEEMod, November 2018 (see Appendix A).

Based on the above, the proposed project is not expected to result in PM_{10} concentrations in excess of SMAQMD's thresholds of significance, and impacts would be less than significant. Considering that the proposed project would not result in a project-specific impact related to emissions of PM, operation of the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Questions E through G

The proposed project involves the creation of 224 multi-family residences; thus, the proposed project would introduce new sensitive receptors to the area (although the effects of the environment on the proposed project are not CEQA-related issues). In addition, the existing residences in proximity to the project site would be considered sensitive receptors to any pollutants potentially emitted during construction or operation of the proposed project. The major pollutant concentrations of concern are localized CO and TAC emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the proposed project would be expected to increase local CO concentrations. Concentrations of CO approaching the ambient air quality standards are only expected where background levels are high, and traffic volumes and congestion levels are high. The SMAQMD's preliminary screening methodology for localized CO emissions provides a

conservative indication of whether project-generated vehicle trips would result in the generation of CO emissions that exceed the applicable threshold of significance. The first tier of SMAQMD's recommended screening criteria for localized CO states that a project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

Even if a project would result in either of the above, under the SMAQMD's second tier of localized CO screening criteria, if all of the following criteria are met, the project would still result in a less-than-significant impact to air quality for localized CO:

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air would be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

As discussed in further detail in the Transportation and Circulation section of this IS/MND, the proposed project is expected to generate approximately 3,042 total daily vehicle trips, with 121 trips during the AM peak hour and 235 trips during the PM peak hour. The new vehicle trips generated by the project would contribute additional traffic to intersections which currently operate at LOS E or F. However, none of the affected intersections experience more than 31,600 vehicles per hour. Consequently, the proposed project would not be expected to result in the generation of CO concentrations that exceed the 1-hour State AAQS (i.e., 20.0 ppm) or the 8-hour State AAQS (i.e., 9.0 ppm). Therefore, the proposed project would result in less than significant cumulative impacts to localized CO emissions.

TAC Emissions

The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook)[4] provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, rail yards, chrome platers, dry cleaners, and gasoline dispensing facilities. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. However, the California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369* clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit odors and TACs on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school).

[4] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

While existing sources that emit odors and TACs may not be considered a CEQA impact, local jurisdictions have the authority to protect the public health, safety, and welfare of their communities through their police powers.[5] In consideration of the recent California Supreme Court rulings, SMAQMD recognizes that the CEQA analysis of TACs is limited to the potential for the proposed project to exacerbate existing sources of TACs or introduce new sources of TACs. While not a CEQA issue, SMAQMD does consider the location of new sensitive receptors in proximity to existing sources of TACs to be an important environmental issue that should be addressed during the planning process for proposed projects.

Considering the above, the analysis presented within this IS/MND focuses on the potential for the proposed project to introduce new sources of TACs or exacerbate existing sources of TACs.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The residential development proposed as part of the proposed project would not involve long-term operation of any stationary diesel engines or other major on-site stationary source of TACs. The CARB's Handbook includes facilities (distribution centers) associated with 100 or more heavy-duty diesel trucks per day as a source of substantial DPM emissions. The proposed project is not a distribution center, and is not located near any existing distribution centers. Residential developments do not involve frequent heavy-duty diesel truck trips. Considering the residential nature of the proposed project, many future residents would be anticipated to own and use personal vehicles. Some of the future residents may own diesel-fueled vehicles; however, emissions from passenger vehicles are typically less intense than from heavy-duty trucks, and the likelihood that the equivalent of 100 heavy-duty diesel trucks per day would occur from diesel-fueled passenger vehicles to and from the site is very low. Accordingly, the proposed project would not involve diesel trucks at the site in excess of 100 per day and would not be expected to expose any existing sensitive receptors to substantial DPM emissions associated with truck trips. Therefore, operation of the proposed project would not expose existing nearby sensitive receptors to substantial pollutant concentrations.

Considering that the proposed project would not be anticipated to result in emissions that would be equivalent of 100 heavy-duty diesel trucks per day, the proposed project's contribution to existing sources of mobile TACs, such as U.S. 50 located to the north of the project site, would not be considered to result in a substantial exacerbation of an existing source of TACs.

Construction-related activities have the potential to generate concentrations of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. While methodologies for conducting health risk assessments are associated with long-term exposure periods (e.g., over a 30-year period), construction activities associated with the proposed project would occur over an approximately two-year period. The CARB Handbook acknowledges that DPM is a highly dispersive gas, the concentration of which rapidly decreases with distance from the source. The proposed project site is located approximately 60 feet away from the nearest existing residential receptors to the southwest of the project site. In addition, only portions of the site would be disturbed at a time, with operation of construction equipment regulated by federal, State, and local regulations, including SMAQMD rules and regulations, and occurring intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low.

[5] California Constitution, Article XI, Section 7. Available at: http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI. Accessed February 2017.

As discussed above, the project site is not located in an area identified as likely to contain NOA. Thus, sensitive receptors would not be exposed to NOA as a result of the proposed project. Overall, the proposed project would not result in the emission of TACs that would create a risk of 10 in 1 million for stationary sources.

Conclusion

As discussed above, the proposed project would not result in the emission of substantial pollutant concentrations, including localized CO or TAC emissions, including DPM and NOA. Therefore, exposure of sensitive receptors to substantial pollutant concentrations would not occur and a less-than-significant impact would result. Considering that the proposed project would not result in a project-specific impact related to CO or TACs, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Question H

Emissions from proposed project operations were quantified using CalEEMod as described above. Based on the modeling, the proposed project would result in approximately 3,141.81 metric tons of CO_2 equivalent per year. However, the City of Sacramento does not assess potential impacts related to GHG emissions on the basis of total emissions of GHGs. Rather, the City of Sacramento has integrated a CAP into the City's General Plan, and, thus, potential impacts related to climate change from development within the City are assessed based on the project's compliance with the City's adopted General Plan CAP Policies and Programs set forth in Appendix B of the General Plan Update. The majority of the policies and programs set forth in Appendix B are citywide efforts in support of reducing overall citywide emissions of GHG. However, various policies related to new development within the City would directly apply to the proposed project. The project's general consistency with City policies that would reduce GHG emissions from buildout of the City's General Plan is discussed below.

SMAQMD has identified thresholds of significance for agencies without adopted GHG reduction plans[6]; however, projects within Sacramento City limits would be required to adhere to reduction targets, strategies, and specific actions for reducing GHG Emissions set forth by the adopted CAP.

Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6 require that new urban developments should be well-connected, minimize barriers between uses, and create pedestrian-scaled, walkable areas. The proposed project would include a network of accessible pedestrian paths throughout the project site and connecting to existing sidewalks along Redding Avenue. In addition, future residents would be provided with convenient access to the existing bike lanes along the project frontage at Redding Avenue as well as the proposed easement for a bicycle path along the eastern and southern boundaries of the project site. Thus, the proposed project would comply with Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6. Policy LU 2.6.1 and 2.6.6 encourage sustainable development patterns within the City, including compact development and higher-development intensities to promote land use efficiency. Goal LU 4.1, and the associated policies, promote the development of neighborhoods featuring a variety of housing types, densities, and a mix of uses and services. The proposed project would provide residential development in proximity to existing retail and multi-family residential development to the west of the site across Redding Avenue, thereby increasing the diversity of land uses provided in the project area. Furthermore, the project would provide for student-oriented housing for the nearby CSUS. In

6 Sacramento Metropolitan Air Quality Management District. *CEQA Guide.* May 2018

addition to satisfying Goal LU 4.1, such diversity would comply with Goal LU 4.2, which encourages the creation of well-mixed suburban neighborhoods.

The City has determined that new neighborhoods should embody the City's principles for Smart Growth and Sustainability as enumerated in 2035 General Plan Goal LU 4.5 and Policies 4.5.2 through 4.5.5. The proposed project would include pedestrian and bicycle friendly infrastructure, including on-site bike parking, which would allow future residents to access existing mass transit infrastructure within the project area. In addition, CSUS students housed by the project would be provided with convenient bicycle access to the CSUS campus. Thus, the proposed project would comply with Goal LU 4.5, and Policies 4.5.2 through 4.5.5 as well as Goal M 5.1.

The proposed project would be constructed in compliance with the California Building Standards Code (CBSC), which includes the California Building Energy Efficiency Standards and the California Green Building Code. The CBSC, and the foregoing standards and codes, increase the sustainability of new development through requiring energy efficiency and sustainable design practices (Policy ER 6.1.7). Such sustainable design would support the City's Policy U 6.1.5, which states that energy consumption per capita should be reduced as compared to the year 2005.

Furthermore, Policy ER 6.1.2 directs the City to review proposed development and incorporate feasible measures that reduce construction emissions for ROG, NO_X, and other pollutants. As discussed under Question A above, emissions related to construction of the proposed project would be in compliance with SMAQMD's thresholds of significance and Policy ER 6.1.2.

The Master EIR concluded that buildout of the City's General Plan would not result in a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The proposed project would be consistent with the City's General Plan land use and zoning designations for the site as well as the policies discussed above that are intended to reduce GHG emissions from buildout of the City's General Plan. Thus, GHG emissions from operation of the proposed project were previously addressed as part of the analysis in the Master EIR. Considering the project's consistency with the City's General Plan and the general consistency with the City's General Plan policies intended to reduce GHG emissions, the foregoing annual emissions related to operations of the proposed project have been previously addressed, and the proposed project would not conflict with the City's CAP. Consequently, the proposed project would result in a less-than-significant impact. Considering that the proposed project would not result in a project-specific impact related to compliance with the City's CAP, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant environmental effects relating to Air Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. BIOLOGICAL RESOURCES Would the proposal: A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?			X
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?		X	
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?			X

The discussion in this section is primarily based on a Biological Resources Evaluation prepared for the project by Sycamore Environmental Consultants, Inc. Biological surveys of the project site were conducted on July 18, 2018 and September 6, 2018. In addition, information for this section was taken from an Arborist Report, prepared by Tree Associates, INC, which evaluated the condition of existing on-site trees.

Environmental Setting

The project site is located on several parcels totaling approximately 12.95 acres of developed area. The developed areas of the site include buildings, paved and gravel parking areas, a water tower, a fuel tank, stockpiles of crates and other materials. Small areas of ruderal weeds and grasses exist onsite, but are regularly mowed. The project site is therefore heavily disturbed and exhibits a low potential for meeting the criteria required to support habitat for most special-status species.

Although the majority of the City is developed with residential, commercial, and other urban development, valuable plant and wildlife habitat still exists. The natural plant and wildlife habitats are located primarily along the City boundaries in the northern, southern and eastern portions of the City, but also occur along river and stream corridors and on a number of undeveloped parcels. Habitats that are present in the City include annual grasslands, riparian woodlands, oak woodlands, riverine, ponds, freshwater marshes, seasonal wetlands, and vernal pools. The plant and wildlife habitats on-site and their general locations are discussed briefly below.

Trees

An evaluation of the on-site trees was performed by Tree Associates on August 29, 2018. According to the evaluation, the site contains a total of 23 trees with trunk diameters ranging from two to 14 inches in diameter. The majority of trees were planted street trees along the western project site frontage at Redding Avenue while the site itself is sparse and nearly devoid of trees. The trees were evaluated for their health and structure and the arborist determined that nine of the trees did not have any significant health concerns, eight were in fair health, and six were in

poor to poor-fair health. Of the 23 on-site trees evaluated, two were recommended for removal due to their poor condition and a lack of adequate treatments to mitigate their condition.

Waters and Wetlands

A reconnaissance-level survey of wetlands and waters on the project site was conducted by Sycamore Environmental Consultants. Data points were taken using the current U.S. Army Corps of Engineers (USACE) three-parameter test based on vegetation, soil characteristics, and hydrology indicators. The data points collected did not meet the thresholds of the three-parameter test, thus, confirming that impacts to wetlands or waters would not occur with implementation of the proposed project.

Standards of Significance

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

Answers to Checklist Questions

Question A

The use, handling, and storage of hazardous materials is regulated by both the Federal Occupational Safety and Health Administration (Fed/OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA is responsible for developing and enforcing workplace safety regulations. As discussed further in Section 7, Hazards, of this IS/MND, project site soils have been determined to contain concentrations of lead and chlordane beyond their respective thresholds for human safety. The presence of these hazardous materials requires the disposal of contaminated on-site soils which would be subject to compliance with Mitigation Measure 6-1.

The proposed project consists of the construction of a multi-family residential development and residential land uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Future residents may use common household cleaning products on-site, which could contain potentially hazardous chemicals; however, due to the regulations of such products and the amount utilized on the site, routine use of such products would not represent a substantial risk to public health or the environment. In addition, the routine transport, use, and disposal of hazardous materials are regulated by existing federal, state, and local regulations, and the proposed project would not involve the use, production, disposal, or handling of materials that could pose a hazard to plant or animal populations in the area; therefore, the proposed project would result in a less-than-significant impact and implementation of the project would result in ***no additional significant environmental effects*** beyond what was previously anticipated in the Master EIR.

Question B

File data taken from the United States Fish and Wildlife Service (USFWS), California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) were used to determine the types of special-status plant and wildlife species and their habitats that could occur within the project site. Field surveys, conducted by Sycamore Environmental biologists, were then used to determine if any individual species or habitats for special-status species identified in the file data were present on the project site.

Trees

As discussed above, the project site contains a total of 23 trees. While the majority of the on-site trees are slated to be preserved, two City trees are recommended to be removed due to poor condition and lack of adequate treatments to mitigate their condition. In addition, two Private Protected trees and approximately two unprotected, private property trees would be removed due to their interference with the construction of the proposed project. Removal of City trees and Private Protected trees would be subject to compliance with regulations in Sacramento City Code Section 12.56. As discussed below, the on-site trees could present marginal nesting or foraging habitat for special-status species and removal could result in a potentially significant impact. However, implementation of Mitigation Measure 3-1 would reduce the above impact to a less-than-significant level. A discussion of the two special-status species identified in the Biological Resources Evaluation as having the potential to occur within the project site follows below.

Special-Status Wildlife Species

The Biological Resources Evaluation used file data from the USFWS, The CNDDB, and CNPS inventories to identify federal-listed species with the potential to occur on-site or be affected as a result of implementation of the proposed project. According to the search of the above inventories, the project site only provides potential nesting and foraging habitat for bird species protected under the Federal Migratory Bird Treaty Act (MBTA). While active bird nests were not observed during the July 18, 2018 and September 6, 2018 project site visits, the potential exists for nests to become established prior to construction during the breeding season which typically extends from February 1 through August 31.

Burrowing Owl

The burrowing owl is a California species of concern that primarily inhabits open, dry grassland and desert habitats, as well as open shrubs and ponderosa pines. Burrowing owls often use ground-squirrel burrows to nest. While burrowing owls or potentially occupied burrows were not observed on-site or near the site during the July 18 and September 6 site surveys, CNDDB records indicate numerous occurrences and sightings reported in the vicinity of the site. If active burrowing owl burrows become established prior to construction, the project could have the potential to cause nest abandonment. As such, the potential exists for burrowing owls to become established within the ruderal grasses located on the site and a potentially significant impact could occur to burrowing owls as a result of construction associated with the proposed project. Implementation of Mitigation Measures 3-2 and 3-4 would reduce any impacts to burrowing owl to a less-than-significant level.

Purple Martin

The purple martin is a California species of concern that typically inhabits open areas with nearby water sources and frequently nests in human-made structures such as nest boxes, culverts, or

under bridges. The underside of the U.S. 50 overpass, located immediately north of the project site, was recorded in 2003 as having active purple martin nests. In addition, the manmade structures on the project site could also provide marginal potential nesting habitat for purple martin. Although the July 18 and September 6 project site surveys did not show evidence of potential nests within or immediately surrounding the project site, the potential still exists for purple martin to establish nests within or near the project site and a potentially significant impact could result. Implementation of Mitigation Measures 3-2 and 3-3 would reduce the impacts to purple martin to a less-than-significant level.

Conclusion

Implementation of Mitigation Measures 3-1 to 3-4 would reduce any impacts resulting from implementation of the proposed project on trees and special status species to a less-than-significant level. Therefore, with implementation of mitigation, the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Question C

As discussed above, the project site does not contain any water features that may be considered potentially jurisdictional wasters of the U.S., regulatory waters, or wetlands. Given that these features do not exist within the project site, no impact would occur and implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts related to Biological Resources to less-than-significant levels.

3-1 *The project applicant shall implement the following tree preservation measures prior to and during construction for all on-site trees to be preserved to that satisfaction of the City Arborist.*

- *Tree Protection Zones (TPZs): The surveyed trunk locations and TPZs/tree protection fencing shall be indicated on all construction plans for trees to be preserved;*
- *Modified TPZs: Modified TPZs are areas where proposed infrastructure is located within protection zones. These Modified TPZs and fencing shall be indicated as close to infrastructure as possible (minimize overbuild);*
- *The Consulting Arborist shall revise development impact assessment (as needed) for trees to be preserved once construction plans are drafted;*
- *Grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste, or washout, or any other disturbance within TPZs shall be avoided to the maximum extent possible.*
- *Any work that is to occur within the TPZs shall be monitored by the Consulting Arborist;*
- *A meeting shall be conducted to discuss tree preservation guidelines with the Consulting Arborist and all contractors, subcontractors, and*

project managers prior to the initiation of demolition and construction activities;

- *Any pruning required for construction shall be performed by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance shall be the minimum required to build the project and shall be performed by an ISA Certified Arborist prior to demolition;*
- *Tree protection fences should be made of chain-link with posts sunk into the ground, and shall not be removed or moved until construction is complete;*
- *Any work occurring within the TPZs shall be monitored by the consulting arborist;*
- *If roots larger than 1.5 inches or limbs larger than 3 inches in diameter are cut or damaged during construction, the Consulting Arborist shall be contacted immediately to inspect and recommend appropriate remedial treatments; and*
- *All trees to be preserved shall be irrigated once every two weeks during non-Winter months, to uniformly wet the soil to a depth of at least 18 inches under and beyond the canopies of the trees.*

3-2 *Prior to ground disturbing activities, all construction personnel shall attend a mandatory Worker Environmental Awareness Training (WEAT) Program. The program shall summarize laws and regulations that protect biological resources, discuss sensitive habitats and special status species with the potential to occur on-site, and provide instructions to comply with all project mitigation measures. Proof of completion in the form of a sign-in sheet shall be submitted to the City Building Official.*

3-3 *If construction is to begin during the nesting season of February 1 through August 31, then a preconstruction survey for protecting nesting birds shall be conducted by a qualified biologist. If a 15-day lapse in construction work occur during the nesting season, then another preconstruction survey shall be conducted prior to the resumption of work. Results of the preconstruction surveys shall then be submitted to the City of Sacramento Planning Division for review.*

The preconstruction survey shall be conducted within 15 days prior to the start of construction. The survey shall cover the project site and areas within 500 feet for birds of prey, and within 100 feet for other bird nests. Private and inaccessible areas shall be surveyed from accessible public areas with binoculars. If no active nests of a bird of prey, MBTS bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are required. If active nests are found, they shall be avoided and protected as follows:

- *If a bird of prey nest is found, a 250-foot-radius Environmental Sensitive Area (ESA) shall be established around the nest.*
- *If an active nest of another (non-bird of prey) bird is found, a 50-foot-radius ESA shall be established around the nest.*

No construction activity shall be allowed in an ESA until the biologist determines that either: 1) the nest is no longer active; 2) monitoring determines a small ESA buffer will protect the active nest; or 3) monitoring determines that no disturbance to the nest is occurring. Construction buffers may be reduced in size or removed

entirely if the qualifies biologist determines that construction activities will not disturb nesting activities or contribute to nest abandonment.

3-4(a) *The project applicant shall implement the following measure to avoid or minimize impacts to western burrowing owl:*

- *Within 14 days prior to any ground disturbing activities for each phase of construction, the project applicant shall retain a qualified biologist to conduct a preconstruction survey of the site, any off-site improvement areas, and all publicly accessible potential burrowing owl habitat within 500 feet of the project construction footprint. The survey shall be performed in accordance with the applicable sections of the March 7, 2012 (or subsequent applicable), CDFW Staff Report on Burrowing Owl Mitigation. The qualified biologist shall be familiar with burrowing owl identification, behavior, and biology, and shall meet the minimum qualifications described in the 2012 CDFW Staff Report. If the survey does not identify any nesting burrowing owls on the site, further mitigation is not required for that phase unless activity ceases for a period in excess of 14 days in which case the survey requirements and obligations shall be repeated. The results of the survey shall be submitted to the City's Community Development Department.*
- *If active burrowing owl dens are found within the survey area in an area where disturbance would occur, the project applicant shall implement measures at least equal to the 2012 (or subsequent applicable) CDFW Staff Report, as determined by the qualified biologist.*
- *During the breeding season (February 1 through August 31), the following measures will be implemented:*
    - *Disturbance-free buffers will be established around the active burrow. During the peak of the breeding season, between April 1 and August 15, a minimum of a 500-foot buffer will be maintained. Between August 16 and March 31, a minimum of a 150-foot buffer will be maintained. The qualified biologist (as defined above) will determine, in consultation with the City of Sacramento Planning Division and CDFW, if the buffer should be increased or decreased based on site conditions, breeding status, and non-project-related disturbance at the time of construction.*
    - *Monitoring of the active burrow will be conducted by the qualified biologist during construction on a weekly basis to verify that no disturbance is occurring.*
    - *After the qualified biologist determines that the young have fledged and are foraging independently, or that breeding attempts were not successful, the owls may be excluded in accordance with the non-breeding season measures below. Daily monitoring will be conducted for one week prior to exclusion to verify the status of owls at the burrow.*
- *During the non-breeding season (September 1 to January 31), owls occupying burrows that cannot be avoided will be passively excluded consistent with Appendix E of the 2012 CDFW Staff Report:*
    - *Within 24 hours prior to installation of one-way doors, a survey will be conducted to verify the status of burrowing owls on the site.*

- *Passive exclusion will be conducted using one-way doors on all burrows suitable for burrowing owl occupation.*
- *One-way doors shall be left in place a minimum of 48 hours to ensure burrowing owls have left the burrow before excavation.*
- *While the one-way doors are in place, the qualified biologist will visit the site twice daily to monitor for evidence that owls are inside and are unable to escape. If owls are trapped, the device shall be reset and another 48-hour period shall begin.*
- *After a minimum of 48 hours, the one-way doors will be removed and the burrows will be excavated using hand tools to prevent reoccupation. The use of a pipe is recommended to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow.*
- *After the owls have been excluded, the excavated burrow locations will be surveyed a minimum of three times over two weeks to detect burrowing owls if they return. The site will be managed to prevent reoccupation of burrowing owls (e.g., disking, grading, manually collapsing burrows) until development is complete.*
- *If burrowing owls are found outside the project site during preconstruction surveys, the qualified biologist shall evaluate the potential for disturbance. Passive exclusion of burrowing owls shall be avoided to the maximum extent feasible where no ground disturbance will occur. In cases where ground disturbance occurs within the no-disturbance buffer of an occupied burrow, the qualified biologist shall determine in consultation with the City of Sacramento Planning Division and CDFW whether reduced buffers, additional monitoring, or passive exclusion is appropriate.*

3-4(b) *If active burrowing owl dens are present and the project would impact active dens, the project applicant shall provide compensatory mitigation for the permanent loss of burrowing owl habitat at least equal to the 2012 (or subsequent applicable), CDFW Staff Report within 14 days prior to any ground-disturbing activities for each phase of construction. Such mitigation shall include the permanent protection of land, which is deemed to be suitable burrowing owl habitat through a conservation easement deeded to a non-profit conservation organization or public agency with a conservation mission, or the purchase of burrowing owl conservation bank credits from a CDFW-approved burrowing owl conservation bank. In determining the location and amount of acreage required for permanent protection, the project applicant, in conjunction with the City of Sacramento Community Development Department, shall seek lands that include the same types of vegetation communities and fossorial mammal populations found in the lost foraging habitat, with a preference given to lands that are adjacent to, or reasonably proximate to, the lost foraging lands. Such lands shall provide for nesting, foraging, and dispersal comparable to, or better than, the lost foraging land. The minimum amount of acreage for preservation shall be 6.5 acres per nesting pair or unpaired resident bird. Additional lands may be required as determined pursuant to the then current standards/best practices for mitigation acreage as determined by the City of Sacramento Community Development Department in consultation with CDFW.*

Findings

All additional significant environmental effects of the proposed project relating to Biological Resources can be mitigated to less-than-significant levels. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what has been previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. CULTURAL RESOURCES Would the project: A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?			X
B) Directly or indirectly destroy a unique paleontological resource?			X

Environmental Setting

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the City. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the 2035 General Plan Background Report, are located within close proximity to the Sacramento and American rivers and other watercourses.

The 2035 General Plan land use diagram designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive prehistoric resources. High sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today; however, all such areas are outside of the immediate project vicinity. Because the proposed project site is located approximately 0.75-mile south of the American River, there exists potential for implementation of the proposed project to disturb previously undiscovered archeological or paleontological resources. The 2035 General Plan Background Report also defines moderate sensitivity areas, which are areas such as creeks, other watercourses, and high spots near waterways where the discovery of villages is unlikely, but campsites or special use sites may have existed. Moderate areas are often disturbed by siltation, or development; however, discovery of new archaeological resources is still possible.

Standards of Significance

For purposes of this IS/MND, cultural resource impacts may be considered significant if construction and/or implementation of the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource; or
- A substantial adverse change in the significance of such resources.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General Plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR

2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort. (Policy HCR 2.1.15)

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archaeological resources. (Impacts 4.4-1, 2)

Answers to Checklist Questions

The following discussion is based on a Cultural Resources Survey for the project site performed by Tremaine & Associates as well as a Historical Resource Analysis and Department of Parks and Recreation (DPR) Primary Record performed by Historic Resource Associates. On July 16, 2018, A records search was conducted by staff at the North Central Information Center (NCIC) located at CSUS, to research previous sites and surveys within 0.25-mile of the project site. The results of the search determined that previously recorded prehistoric or historic resourced have not been identified within the project site. However, five previously recorded historic resources were identified within 0.25-mile of the project site.

Questions A and B

A property must meet four principal criteria in order to considered for qualification as a significant historical resource for listing locally and on the California Register of Historical Resources (CRHR). These four criteria are defined in CEQA Guidelines Section 15064.5 and are as follows:

1. Associated with events that have made a significant contribution to the broad patterns in the history of Sacramento; or
2. Associated with the lives of significant persons in the history of Sacramento; or
3. Embodies the distinctive characteristics of a type, period, architectural style of method of construction; or that represents the work of a master designer; or that possesses a high artistic value; or represents a significant and distinguishable entity whose components may lack individual distinction; or
4. Has yielded or may likely yield archaeological or anthropological information important to the study of history, prehistory, or human culture.

The on-site buildings were examined both individually and as part of the potential historic district to determine CRHR eligibility. Records indicate the Dorris Lumber and Moulding facility in Sacramento was built in 1944 and became operational in 1945. In 1958, the site was annexed into the City of Sacramento. The on-site buildings represent design and engineering characteristics that were typical to industrial warehouse construction in the 1940s and 1950s, such as the adopted utilitarian architecture and use of mass-produced materials. Additionally, information linking any specific building or structure to a significant event in the history of the City of Sacramento or Sacramento County, or to a specific individual of historical significance has not been uncovered. Based on the fact that none of the existing buildings or structures reflect an important or rare engineering design, and are not the work of a master builder or craftsman that reveals a high level of artistic design or merit, the individual buildings within the project site do not meet any of the CRHR criteria which warrant eligibility for listing as a State historical resource.

Based on the above, the existing buildings within the proposed project site are not eligible for listing on the CRHR or Sacramento register of historical resources as a historical resource. Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource, nor would it directly or indirectly destroy a unique paleontological resource. Therefore, implementation of the proposed project would have ***no***

additional significant environmental effects beyond what has been previously analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

Implementation of the proposed project would result in ***no additional significant environmental effects*** related to Cultural Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
5. GEOLOGY AND SOILS A) Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?		X	

The following discussion is based on information provided in a site-specific Geotechnical Engineering Report conducted by Wallace Kuhl and Associates.

Environmental Setting

Regional Geology

The project site is located in the Great Valley geomorphic province of California, a 500-mile, northwest-trending structural trough, generally constrained to the west by the Coast Ranges and to the east by the foothills of the Sierra Nevada Range. The Great Valley consists of two valleys lying end-to-end, with the Sacramento Valley to the north and the San Joaquin Valley to the south. The project site lies near the southern end of the Sacramento Valley portion of the Great Valley Geomorphic Province. The valley formed by tilting of Sierran Block with the western side dropping to form the valley and the eastern side being uplifted to the form the Sierra Nevada Mountain Range. The valley is characterized by a thick sequence of sediments derived from erosion of the adjacent Sierra Nevada Mountain Range to the east and the Coast Range to the west. These sedimentary rocks are mainly Cretaceous in age. The depths of the sediments vary from a thin veneer at the edges of the valley to depths in excess of 50,000 feet near the western edge of the valley. In the vicinity of the project site, these sediments are approximately 15,000 feet deep.

Topography

Terrain in the City of Sacramento features very little relief and the potential for slope instability within the City is minor due to the relatively flat topography of the area. The project site is relatively level with no major changes in grade.

Liquefaction

Liquefaction refers to the loss of strength or stiffness of a soil that occurs to loose, saturated soils as a result of strong ground shaking during earthquakes. The potential for liquefaction at a site is generally determined based on results of a subsurface geotechnical investigation and the groundwater conditions beneath the site. While a soil liquefaction analysis was not performed as part of the site-specific geotechnical engineering report for the project site, the project site has been previously mapped as being underlain by Riverbank Formation, which does not meet the criteria for to be considered a seismic hazard zone susceptible to liquefaction.[7] Additionally, groundwater at the site is expected to be relatively deep below the existing grade, which further lessens the potential for soil liquefaction or seismically induced settlement to occur at the site during seismic events.

[7] Wallace Khul and Associates. *Geotechnical Engineering Report. Retreat at Sacramento.* July 16, 2018.

Soil Expansion

Expansive soil, also called shrink-swell soil, is a very common cause of foundation problems. Depending upon the supply of moisture in the ground, shrink-swell soils will experience changes in volume of up to thirty percent or more. Foundation soils which are expansive will "heave" and can cause lifting of a building or other structure during periods of high moisture. Conversely, during periods of falling soil moisture, expansive soil will "collapse" and can result in building settlement. In either case, the damage to structures can be extensive.

Seismicity

The Sacramento 2035 General Plan Master EIR identifies all of the City of Sacramento as being subject to potential damage from earthquake groundshaking at a maximum intensity of VII on the Modified Mercalli scale (SGP Master EIR, Table 6.5-6). The closest potentially active faults to the project area include the Foothills Fault System, located approximately 23 miles from Sacramento; the Great Valley fault, located 26 miles from Sacramento; Concord-Green Valley Fault, located approximately 38 miles from Sacramento; and the Hunting Creek-Berryessa Fault, located 38 miles from Sacramento. The Foothills Fault System is considered capable of generating an earthquake with a Richter-Scale magnitude of 6.5; the Great Valley Fault is capable of generating an earthquake with a magnitude of 6.8; the Concord-Green Valley fault is capable of generating an earthquake with a magnitude 6.9, and the Hunting Creek-Berryessa Fault could generate a 6.9 magnitude earthquake. A major earthquake on any of these faults could cause strong groundshaking in the project area.

Project Site Soils

The project site is underlain by San Joaquin silt loam and Urban Land complex. The San Joaquin soil is formed in alluvium derived from mixed granitic rock and has very slow permeability and limited water capacity. The Urban Land soils consist of areas covered by impervious surfaces or structures such as roads, driveways, sidewalks, buildings, and parking lots.

Standards of Significance

For the purposes of this IS/MND, an impact is considered significant if it allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources and paleontological resources in the City. Implementation of identified policies in the 2035 General Plan reduced all effects to a less-than-significant level. Policy EC 1.1.1 requires regular review of the City's seismic and geologic safety standards, and Policy EC 1.1.2 requires geotechnical investigations for project sites to identify and respond to geologic hazards, when present.

Answers to Checklist Questions

Question A

Two site soil samples were tested for Plasticity Index. Both tested soils received scores indicating a low plasticity index which indicated that the on-site soils have a relatively low expansion potential and could, therefore, be capable of exerting low to moderate expansion pressures on building foundations, interior floor slabs, and exterior flatwork. The geotechnical report determined that the uppermost two to three feet of surface soils on the site would be disturbed from the previous on-site development and subsequent demolition and utility removal.

The new buildings associated with the proposed project would be able to be supported on conventional reinforced foundations with conventional interior slabs-on-grade, provided that the measures described throughout the site-specific Geotechnical Engineering Report are implemented. In addition, the surface and near-surface soils would be required to be properly moisture conditioned and compacted during earthwork operations in accordance with the site-specific geotechnical report. Thorough moisture conditioning and re-compaction would be required to ensure uniform support for the proposed structures and other on-site amenities. Engineered fills composed of native soils or other approved import soils, placed and compacted in accordance with general engineering practices, would be capable of supporting the proposed structures, pavements, and other site amenities.

Geologic Hazards

The proposed project site is not located on or in the vicinity of an Alquist-Priolo Fault Zone; therefore, the potential for fault rupture on the proposed project site is considered to be low. The proposed project site is located in an area of the City of Sacramento that is topographically flat. Seismically-induced landslides or landslides induced by soil failure typically occur on slopes with gradients of 30 percent or higher. According to the Background Report for the City's 2035 General Plan and the Natural Resources Conservation Service's (NRCS) Web Soil Survey, the existing on-site soils range from 0 to two percent slopes. Considering the proposed project site is topographically flat, the potential for seismically-induced or soil failure landslides does not exist.

Soil liquefaction is a phenomenon primarily associated with the saturated soil layers located close to the ground surface. These soils lose strength during ground shaking generated by seismic events. Due to the loss of strength, the soil acquires "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant number of fines (minute silt and clay fraction) may also liquefy. The proposed project site is not located within a State-Designated Seismic Hazard Zone for liquefaction. Although the project site is not within a State-Designated Seismic Hazard Zone, areas within the Sacramento region that include unconsolidated water-saturated sediments may experience liquefaction during seismic events. The project site is underlain by Riverbank Formation, which is a middle to late Pleistocene-aged deposit that does not meet the criteria for delineation as a seismic hazard zone susceptible to liquefaction[8]. Furthermore, groundwater at the site is expected to be approximately 40 feet or deeper below site grade. Thus, the potential for liquefaction to occur at the project site during seismic events is very low.

[8] California Geological Survey. Special Publication 118. *Recommended Criteria for Delineating Seismic Hazard Zones in California.* April 2004.

The California Building Standards Code (CBSC) includes requirements regarding earthquake protection measures and requirements for grading and soil preparation related to liquefaction. The Sacramento City Code requires implementation of the CBSC and all relevant requirements relating to design of structures to withstand earthquake related ground shaking as well as requirements regarding the preparation of soil and proper grading practices for areas with the potential to experience liquefaction. Specifically, the Master EIR concluded that implementation of Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design*, of the CBSC would ensure that structures within the City's planning area would not experience excess risk due to seismic ground shaking. In addition, potential hazards related to liquefaction within the City's planning area would be mitigated through adherence to the Seismic Zone 3 soil and foundation support parameters in Chapters 16 and 18 of the CBSC, as well as the grading requirements in Chapters 18, 33, and the appendix to Chapter 33 of the CBSC.

Consistent with the conclusions of the Master EIR, implementation of the Sacramento City Code, and compliance with the site-specific geotechnical investigation and with the CBSC, would ensure that the proposed project would include protections against possible seismic hazards.

The proposed project would be required to be consistent with the City of Sacramento Building Code; and, therefore would comply with the CBSC as the City implements the CBSC through the building permit process. The CBSC provides minimum standards for building design in the State of California. Chapter 16 of the CBSC (Structural Design Requirements) includes regulations and building standards governing seismically-resistant construction and construction techniques to protect people and property from hazards associated with excavation cave-ins and falling debris/construction materials. Chapter 18 of the CBC provides regulations regarding site demolition, excavations, foundations, retaining walls, and grading, including, but not limited to, requirements for seismically-resistant design, foundation investigation, stable cut and fill slopes, and excavation, shoring, and trenching. The CBSC also defines different building regions in California and ranks them according to their seismic hazard potential. Seismic Zone 1 has the least seismic potential and Zone 4 has the highest seismic potential. The City of Sacramento is in Seismic Zone 3; accordingly, the proposed project would be required to comply with all design standards applicable to Seismic Zone 3.

Conclusion

Project site soils have the potential to exhibit expansion which, unless mitigated for, could potentially result in the proposed project being constructed on a site without protection against geologic and seismic hazards. Implementation of Mitigation Measures 5-1 to 5-2, and compliance with the recommendations put forth in the site-specific Geotechnical Engineering Report, would ensure a less-than-significant impact related to Geology and Soils. In addition, the proposed project is consistent with the City's 2035 General Plan, and, as discussed in the Master EIR, the policies included in the City's 2035 General Plan as well as the requirements of the CBSC and the City's Municipal Code would ensure that development in compliance with the City's 2035 General Plan would not result in significant impacts related to seismic or soil hazards. Therefore, the proposed project would not allow construction within the project site to commence without protection against potential seismic or soil hazards, and, as such, the proposed project would result in a less-than-significant impact. Considering that the proposed project would not result in a project-specific impact related to geology and soils, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

Implementation of the following Mitigation Measure, along with compliance with all recommendations put forth in the site-specific Geotechnical Engineering Report, would reduce impacts related to Geology and Soils to a less-than-significant level.

5-1 *After demolition of the existing on-site structures, over-excavation of the existing building/structure areas shall be required and conducted at a minimum depth of 24 inches below existing site grade, and laterally at a minimum of five feet beyond the existing building/structure footprints to the maximum extent feasible as determined by the Geotechnical Engineer. Where new buildings will be wholly or partially within previous building areas, the over-excavation shall extend a minimum of five feet beyond the new building footprints. The limits of the over-excavation shall be shown on the grading plans and reviewed by the City Engineer.*

If remedial environmental cleanup work is not required, the backfill materials at the two former UST pits shall be excavated and recompacted. Contaminated soils or uncompactable materials, such as pea gravel should not be reused as backfill. Additional over-excavations may be required in other areas to remove potentially contaminated soils. Over-excavation in these areas may be omitted if recent cleanup work was conducted and the new pits or depressions properly backfilled in accordance with the recommendations in the site-specific Geotechnical Engineering Report.

The over-excavation bottoms shall be thoroughly ripped and cross-ripped an additional 12 inches to expose any structure remnants, underground utilities, and debris. All exposed remnants shall be removed from the site. Exposed soils shall be thoroughly moisture conditioned and uniformly compacted to at least 90 percent of the ASTM D1557 maximum dry density as engineered fill.

Any existing deep foundations shall either be removed and the voids be filled with grout, or the tops be cut off at a depth of at least give feet below existing site grade, or at lease five feet below the bottom of new footing, whichever is deeper.

5-2 *Following site clearing activities, construction areas to receive fill shall be scarified in place to a depth of at least 12 inches, thoroughly moisture conditioned to at least two percent above the optimum moisture content, and uniformly compacted to not less than 90 percent relative compaction. Relative compaction shall be based on the maximum dry density as determined in accordance with the ASTM D1557 Test Method.*

Compaction shall be performed using a heavy, self-propelled, sheepsfoot compactor capable of achieving the required compaction. Difficulty in achieving subgrade compaction may be an indication of loose, soft, or unstable soil conditions associated with the prior development. If these conditions exist, the materials shall be excavated to check for subsurface structures and the excavations backfilled with engineered fill in accordance with the recommendations included in the site-specific Geotechnical Engineering Report. Areas to receive fill shall be shown on the grading plans and be reviewed by the City Engineer.

Findings

All additional significant environmental effects of the proposed project relating to Geology and Soils would be mitigated to a less-than-significant level. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. HAZARDS Would the project: A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?		X	
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?		X	
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?			X

Environmental Setting

The City of Sacramento Fire Department is the first responder for fire, accident, and hazardous materials emergencies in the project area. The Department maintains two HazMat Teams at fire stations in the project region; Truck 5 is stationed downtown at 8th and Broadway, and Truck 20 at Arden Way and Del Paso Boulevard. The HazMat Teams respond to hazardous materials incidents. All members of the HazMat Teams are trained in accordance with National Fire Protection Association standards and are certified by the California Specialized Training Institute as Hazardous Materials Specialists. The teams would be expected to respond to any hazardous materials release at the project site or in the vicinity of the project site.

The project site is currently developed with warehouse and office buildings associated with the Dorris Lumber and Moulding Company. USTs that contained gasoline and diesel fuels were previously removed from the site; however, the potential exists for soil contamination to have occurred during the operation and removal of the underground storage tanks (USTs). Additionally, prolonged industrial operation associated with the on-site Dorris Lumber and Moulding Company could have the potential for discharge of oils and toxic contaminants on the project site.

Standards of Significance

For the purposes of this IS/MND, an impact is considered significant if the proposed project would:

- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards (see Chapter 4.6). Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the General Plan.

Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 General Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

Answers to Checklist Questions

A Phase I Environmental Site Assessment (ESA) for the project site was conducted by Wallace Khul and Associates (WKA) on July 24, 2018. Based on the findings of the Phase I ESA, a subsequent Phase II ESA for the project site was conducted by WKA on October 9 and 10, 2018. The following discussion details the findings of the Phase I and II ESAs.

Questions A

On October 4 and 5, 2018, WKA used hand sampling methods to collect soil samples from a depth of between zero and six inches below ground surface (bgs) and 18 to 24 inches bgs. from suspect areas of the project site. Collected samples were stored in chilled containers before being sent for laboratory analysis. Additionally, on October 4, 2018, Gasch Geophysical Services, Inc. (Gasch), performed a geophysical survey at the site in order to identify the areas of the site that previously contained the two 550-gallon gasoline USTs and the 1,000-gallon diesel UST as well as to locate underground utilities to provide clearance during drilling activities. Finally, on October 9 and 10, 2018, six soil borings at depths ranging from 16 feet bgs to 50 feet bgs were taken to sample site soils and groundwater. Soil and groundwater samples were transported for laboratory analysis.

The proposed project includes the development of a 224-unit student housing complex with a club house and various amenities, including a fitness center, clubhouse, outdoor lounge, pool, and spa. Implementation of the proposed project would include demolition of the existing on-site structures and construction of 31 multi-family residential buildings and associated rights-of-way for internal circulation, parking lots, and amenity areas.

Analysis of surface soil samples collected from the project site reported that nine metals including arsenic, barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc, occurred at varying concentrations above their respective reporting limits.[9] With the exception of arsenic, the reported concentrations did not exceed their respective California Department of Toxic Substances Control (DTSC) and EPA screening levels. Concentrations of arsenic in surface soils ranged from 3.2 mg/kg to 6.3 mg/kg, which exceed the DTSC screening levels of 0.36 mg/kg for protecting human health under a commercial scenario. Despite this, naturally occurring arsenic in California soils often exceeds the DTSC screening levels, and the ESA determined that the concentrations of arsenic at the project site are consistent with naturally occurring arsenic levels within California soils.

Soils containing lead at concentrations exceeding the appropriate screening levels were reported at the project site and delineated along the west side of the Mill Building and the south side of Shed 1. The volume of on-site lead-contaminated soils at the appropriate screen levels is estimated to be between 60 CY and 400 CY and have an estimated weight of between 90 and 600 tons. Soil samples were shown to contain diesel, gasoline, motor oil, and hydraulic oil, at concentrations below their respective commercial and residential screening limits.

[9] Wallace Khul & Associates. *Phase II Environmental Site Assessment. Dorris Lumber Company.* November 12, 2018.

Soils collected adjacent to the Office Building (see Figure 5), were shown to contain chlordane, an organochlorine pesticide (OCP), in concentrations exceeding the appropriate DTSC screening levels for protecting human health in. Approximately 26 to 28 CY of soil containing elevated concentrations of chlordane exceeding the appropriate screening levels has been delineated along the east side of the Office. The lateral extent of chlordane contaminated soils has been delineated; however, the vertical extent has not been fully delineated. OCPs were not reported in other site soil samples. The volume of on-site chlordane contaminated soils at the appropriate thresholds is estimated to be between 26 CY and 28 CY and have an estimated weight of 39 to 42 tons.

The total volume of on-site contaminated soils containing lead or chlordane at levels exceeding the appropriate screening levels would be between 86 cy and 428 cy and would weigh between 129 and 642 tons. An assumed rate of 20 tons per every one truck load would yield a total of between seven and 39 truckloads required for transport of contaminated soils from the project site.

Based on the above, the project site soils contain amounts of lead, and chlordane at concentrations exceeding their respective screening limits. As such, construction activities associated with implementation of the proposed project have the potential to expose residents, pedestrians, and construction workers to existing contaminated soil and a potentially-significant impact would result. Implementation of Mitigation Measure 6-1 would reduce the above impact to a less-than-significant level. Therefore, with implementation of Mitigation Measure 6-1, the proposed project would result in ***no additional significant environmental impacts*** beyond what was previously analyzed in the Master EIR.

Question B

Asbestos

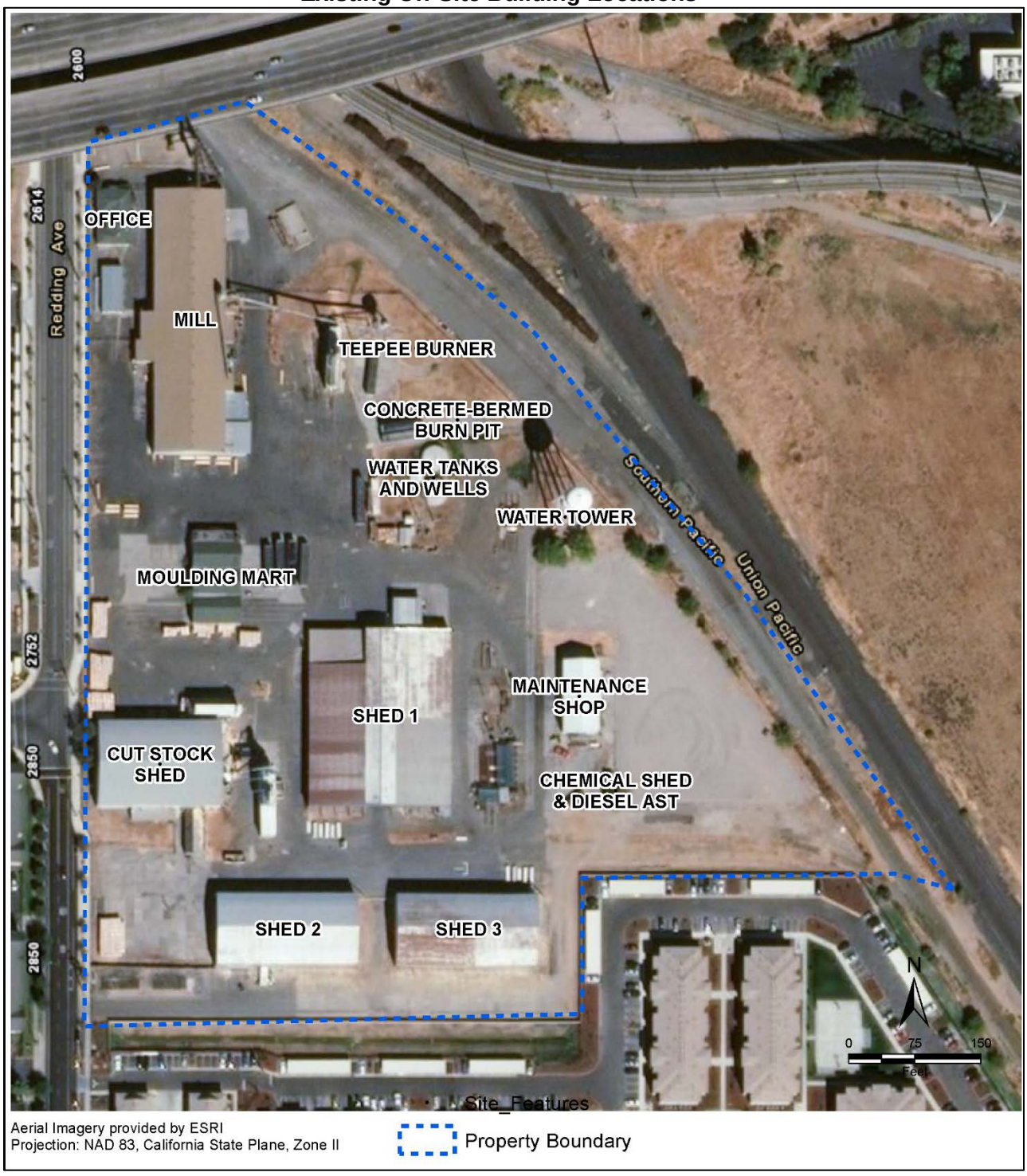
Entek performed a Hazardous Materials Survey of the project site on May 29, 2018, which included all interior and exterior areas of all of the on-site structures. The inspection was compliant with U.S. EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) and SMAQMD requirements for the project site to determine is asbestos containing materials are present which may be impacted during demolition activities associated with the proposed project. The survey also sampled paints and coatings to determine if lead was present in these materials.

Samples taken from the project site during the survey were analyzed in a laboratory setting to determine if the materials contained asbestos in amounts greater than one percent. The results of the analysis determined that building materials within the project site contained measurable amounts of asbestos over one percent and estimated that more than 100 sf of asbestos containing materials exist within the project site and would be disturbed during demolition activities. As such, the demolition of the existing on-site structures would have the potential to expose construction workers to asbestos-containing materials.

Lead

Samples of paints and ceramic tile glazes were collected from the project site and submitted for laboratory analysis to determine the presence of lead. Lead Containing Materials (LCMs) are defined by the California Department of Public Health (CDPH) and the Environmental Protection Agency (EPA) as containing lead in concentrations equal to or greater than 1.0 mg/cm^2, 5,000 parts per million (ppm), or 0.5 percent by weight. Lead based paint was found throughout the site buildings and on the exterior of the on-site water tower, sheds, and the mill building.

Figure 5
Existing On-Site Building Locations



Based on the above, the proposed project could have a potentially significant impact related to exposing people (e.g., residents, pedestrians, construction workers) to hazardous materials. Implementation of Mitigation Measures 6-2 and 6-3 would reduce the impact to a less-than-significant level. Thus, with implementation of Mitigation Measures 6-2 and 6-3, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Question C

Groundwater samples taken from soil boring showed concentrations of benzene and naphthalene exceeding their respective regional screening levels for tap water. Despite exceeding screening levels, the concentrations of benzine and naphthalene are very low and would not pose a threat to human health as the water will not be used for drinking. In addition, metals such as arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc, were reported in concentrations above their respective reporting limits in groundwater samples. However, these metals were determined to be naturally-occurring and would not pose a threat to human health as the groundwater would not be used as a drinking source.

In addition, as discussed in Section 5, Geology, of this IS/MND, the groundwater depth at the project site is approximately 45 feet below grade level. As such, construction activities associated with the proposed project would not include site excavation or grading to depths that would reach the groundwater table, and site dewatering, which could expose people to contaminated groundwater, would not occur.

Based on the above, the proposed project would have a less-than-significant impact related to exposing residents, pedestrians, or construction workers to contaminated groundwater. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects*** beyond what has been previously analyzed in the Master EIR.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts related to Hazards to a less-than-significant level.

6-1 *During construction, impacted soil from the areas where the elevated concentrations of chlordane and lead have been encountered shall be excavated and stockpiled to minimize potential risks to human health in the context of future residential land use. Following excavation activities, confirmation sidewall and floor samples from the excavation areas shall be collected for laboratory analysis to determine if concentrations of chlordane and lead remaining in Site soil are below their respective screening levels. Soil samples shall be collected from the stockpiled soil for waste characterization and profiling purposes. The stockpiled soil shall then be transported to an appropriate licensed Class I or Class II landfill disposal facility.*

Hazardous or contaminated materials may only be removed and disposed from the project site in accordance with the following regulations and requirements:

A. Chapter 6.5, Division 20, California Health and Safety Code. California Administration Code, Title 22 relation to Handling, storage, and transfers of hazardous Materials. City of Sacramento Building Code and the Uniform Building Code, 1994 edition.

B. Coordination shall be made with the County of Sacramento Environmental Management Department, Hazardous Materials Division, and the necessary applications shall be filed.

C. All hazardous materials shall be disposed of at an approved disposal site and shall only be hauled by a current California registered hazardous waste hauler using correct manifesting procedures and vehicles displaying a current Certificate of Compliance. The developer shall identify by name and address the site where toxic substances shall be disposed of. Payment for removal and disposal services shall not be made without a valid certificate from the approved disposal site that the material was delivered.

D. None of the aforementioned provisions shall be construed to relieve the developer from the developer's responsibility for the health and safety of all persons (including employees) and from the protection of property during the performance of the work. This requirement shall be applied continuously and not be limited to normal working hours.

As an alternative to, or, in combination with the above measures, contaminated soil may also be capped in-place beneath a hardscaped surface such as asphalt or concrete. The location of the capped chlordane and lead impacted soil shall be documented using a GPSr. A Soil Management Plan (SMP) shall be prepared to provide procedures for handling, storage, and off-site disposal of impacted soil during construction activities such as excavation activities, underground pipeline utility installations or maintenance activities, as approved by the Sacramento County Environmental Management Department.

Proof of compliance with the above mitigation shall be provided to the City of Sacramento Planning Division for review.

6-2 Prior to issuance of a demolition permit by the City for the existing on-site structures, the project applicant shall prepare and implement an asbestos abatement plan consistent with federal, State, and local standards, subject to approval by the City Engineer, City Building Official, and the Sacramento Metropolitan Air Quality Management District.

Implementation of the asbestos abatement plan shall include the removal and disposal of the asbestos-containing materials by a licensed and certified asbestos removal contractor, in accordance with local, State, and federal regulations. In addition, the demolition contractor shall be informed that all building materials shall be considered as containing asbestos. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing asbestos in accordance with local, State, and federal regulations subject to approval by the City Engineer, City Building Official, and the Sacramento Metropolitan Air Quality Management District.

6-3 Prior to issuance of a demolition permit by the City for the existing on-site structures, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with federal, State, and local regulations. The demolition contractor shall be informed that all

paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with federal, State, and local regulations subject to approval by the City Engineer.

Findings

All additional significant environmental effects of the proposed project relating to Hazards would be mitigated to a less-than-significant level. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects***.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HYDROLOGY AND WATER QUALITY Would the project: A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?			X
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?			X

Environmental Setting

The proposed project site is located in a developed area of Sacramento, directly south of U.S. 50 approximately 0.75 mile south of the American River and 4.85 miles east of the Sacramento River. Currently, very little pervious surface exists on the project site and, as a result, stormwater runoff is handled by existing City stormwater infrastructure located within the Redding Avenue ROW.

The City of Sacramento's Grading Ordinance requires that development projects comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program. The Program is based on the NPDES municipal stormwater discharge permit. The comprehensive Program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. In addition, before the onset of any construction activities, where the disturbed area is one acre or more in size, projects are required to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. Measures that reduce or eliminate post-construction-related water quality problems range from source controls, such as reduced surface disturbance, to treatment of polluted runoff, such as detention or retention basins. The City's SQIP and the *Stormwater Quality Design Manual for the Sacramento Region* (Sacramento Stormwater Quality Partnership 2014) include BMPs to be implemented to mitigate impacts from new development and redevelopment projects.

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that delineate flood hazard zones for communities. The project site is designated by FIRM *Community Panel Number 06067C0195H*[10] as being located within an area designated as Zone X. Zone X is an area of minimal flood hazard, outside of the special flood hazard area and higher than the elevation of the 0.2-percent annual chance flood.

Section 13.08.145 of the Sacramento City Municipal Code (Mitigation of drainage impacts; design and procedures manual for water, sanitary sewer, storm drainage, and water quality facilities) requires that when a property would contribute drainage to the storm drain system or combined sewer system, all stormwater and surface runoff drainage impacts resulting from the improvement

[10] Federal Emergency Management Agency. *Flood Insurance Rate Map Community Panel Number 06067C0195H*. June 16, 2012.

or development must be fully mitigated to ensure that the improvement or development does not affect the function of the storm drain system or combined sewer system, and that an increase in flooding or in water surface elevation that adversely affects individuals, streets, structures, infrastructure, or property does not occur. The proposed project is located within the City's sewer basin 48 which leads to the City's combined sewer system. Wastewater treatment would be provided by the Sacramento Regional County Sanitation District (SRCSD). In order to connect with the SRCSD wastewater conveyance and treatment system, developers must pay impact fees. The proposed project would include payment of combined sewer impact fees as well as any other associated fees.

Standards of Significance

For purposes of this IS/MND, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

- Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the proposed project; or
- Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 4.7-1, 4.7-2), and exposure of people to flood risks (Impacts 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified that the Master EIR concluded would reduce all impacts to a less-than-significant level.

Answers to Checklist Questions

Question A

The proposed project has the potential to degrade water quality during both construction and operations. Further details regarding the potential effects are provided below.

Construction

Construction activities associated with the proposed project would create the potential to degrade water quality from increased sedimentation and increased discharge (increased flow and volume of runoff) associated with storm water runoff. Disturbance of site soils would increase the potential for erosion from storm water. The SWRCB adopted a statewide general NPDES permit for storm water discharges associated with construction activity. Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2010-

0014-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation.

The City's SQIP contains a Construction Element that guides in implementation of the NPDES Permit for Storm Water Discharges Associated with Construction Activity. This General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutant to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. Compliance with City requirements to protect storm water inlets would require the developer to implement BMPs such as the use of straw bales, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measure such as fences, dams, barriers, berms, traps, and basins. City staff inspects and enforces the erosion, sediment and pollution control requirements in accordance with City codes (Grading, Erosion and Sediment Control ordinance).

Conformance with City regulations and permit requirements along with implementation of BMPs would ensure that construction activities of the proposed project would result in a less-than-significant impact related to water quality.

Operation

The proposed project would result in a decrease in the total amount of impervious surfaces on the project site.[11] A drainage report prepared by Cunningham Engineering for the site, shows that current site conditions equate to an imperviousness of 77 percent. The proposed project would decrease imperviousness to approximately 67 percent, which would result in a decrease in site-generated peak flow and site-generated runoff volume. Consideration was given to the potential for the project site to accumulate floodwater. Accordingly, the proposed project would incorporate on-site stormwater retention areas

Based on the above, the proposed project would not be expected to result in an adverse effect on offsite flooding conditions during the 10-year and 100-year storm.

The City Department of Utilities would review the Improvement Plans for the proposed project prior to approval to ensure that adequate water quality control facilities are incorporated. It should be noted that the proposed project would comply with Section 13.08.145, Mitigation of drainage impacts; design and procedures manual for water, sanitary sewer, storm drainage, and water quality facilities, of the City of Sacramento Municipal Code, which requires the following:

> When property that contributes drainage to the storm drain system or combined sewer system is improved or developed, all stormwater and surface runoff drainage impacts resulting from the improvement or development shall be fully mitigated to ensure that the improvement or development does not affect the function of the storm drain system or

[11] Cunningham Engineering. *Drainage Study for The Retreat.* September 2018.

combined sewer system, and that there is no increase in flooding or in water surface elevation that adversely affects individuals, streets, structures, infrastructure, or property.

Conclusion

Design of the proposed project site and conformance with City and state regulations would ensure that a substantial degradation to water quality or violation of any water quality objectives due to increases in sediments and other contaminants generated by construction and/or development of the proposed project would not occur. The proposed project design provides for containment of all runoff water associated with the site; therefore, discharge of runoff to surface waters or groundwater would not result from the proposed project. Furthermore, the proposed project would comply with LID treatments associated with the City's MS4 permit such as augmenting water supplies through multi-benefit, green infrastructure projects that infiltrate runoff to recharge groundwater and capture runoff for direct onsite reuse. The proposed project's impacts related to substantial degradation of water quality or violation of any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the proposed project, would be less than significant. Considering that the proposed project would not result in a project-specific impact related to the degradation of water quality during construction, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Question B

The floodplain is the area that is inundated during a flood event and is often physically discernable as a broad, flat area created by historical floods. According to FEMA's Flood Insurance Rate Map, the project site is located within Zone X. Zone X is an area of minimal flood hazard, outside of the special flood hazard area and higher than the elevation of the 0.2-percent annual chance flood. As such, the proposed project would not place housing or structures within a 100-year flood hazard area, and impacts related to flooding would be considered less than significant. Considering that the proposed project would not result in a project-specific impact related to the exposure of future residents or structures to flooding, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Hydrology and Water Quality. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. NOISE Would the project: A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?			X
B) Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project?			X
C) Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?		X	
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?			X
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?			X
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?			X

Environmental Setting

Noise

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard by the human ear. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz). Discussing sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference defined as 0 dB. Other sound pressures are compared to the reference pressure and the logarithm is taken to keep the numbers in practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. A strong correlation exists between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment for community exposures. All sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), over a given

time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors, day-night average level (L_{dn}) and the community noise equivalent level (CNEL), and shows very good correlation with community response to noise for the average person. The median noise level descriptor, denoted L_{50}, represents the noise level which is exceeded 50 percent of the hour. In other words, half of the hour ambient conditions are higher than the L_{50} and the other half are lower than the L_{50}.

The L_{dn} is based upon the average noise level over a 24-hour day, with a +10 dB weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, L_{dn} tends to disguise short-term variation in the noise environment. Where short-term noise sources are an issue, noise impacts may be assessed in terms of maximum noise levels, hourly averages, or other statistical descriptors.

Another common descriptor is the CNEL. The CNEL is similar to the L_{dn}, except CNEL has an additional weighting factor. Both average noise energy over a 24-hour period. The CNEL applies a +5 dB weighting to events that occur between 7:00 PM and 10:00 PM, in addition to the +10 dB weighting between 10:00 PM and 7:00 AM associated with L_{dn}.

The project site is located south of U.S. 50 and southwest of the UPRR and RT tracks. Vehicle traffic on U.S. 50 and along adjacent roadways such as Redding Avenue, along with train and light rail operations, would constitute the primary sources of existing noises at the proposed project site.

Existing sources of noise in the project vicinity are primarily attributed to U.S. 50 to the north, rail activity associated with the nearby UPRR and RT tracks, and existing industrial activity associated with the on-site Dorris Lumber and Moulding Company. According to the Environmental Noise Assessment for the project site, portions of the site nearest the UPRR and RT tracks were found to experience noise levels of up to 71 CNEL/L_{dn}.

Vibration

Vibration is like noise in that vibration involves a source, a transmission path, and a receiver. While vibration is related to noise, vibration differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and a frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. Vibration magnitude is measured in vibration decibels (VdB) relative to a reference level of 1 micro-inch per second peak particle velocity (ppv), the human threshold of perception. The background vibration level in residential areas is usually 50 VdB or lower. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible. The range of environmental interest is typically from 50 VdB to 90 VdB (or 0.12 inch per second ppv), the latter being the general threshold where structural damage can begin to occur in fragile buildings. The UPRR and RT tracks adjacent to the project site constitute the primary sources of vibrations in the project site area.

Included in Environmental Noise Assessment for the project site were measurements of train vibrations associated with the adjacent UPRR and RT tracks. Based on measurements taken from

the project site, freight and Amtrak trains along the UPRR tracks generated maximum levels of vibration of 72-73 VdB at a distance of 120 feet from the center of the UPRR tracks.

Standards of Significance

For purposes of this IS/MND, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies:

- Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;
- Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The General Plan policies establish exterior (Policy EC 3.1.1) and interior (Policy EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the 2035 General Plan. See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the General Plan policies, noise impacts for exterior noise levels (Impact 4.8-1) and interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

Answers to Checklist Questions

The following discussion is based on a site-specific Environmental Noise Assessment conducted by Saxelby Associates on November 7, 2018.

Questions A and B

The proposed project includes the development of a 224-unit student housing complex with a club house and various amenities, including a community room, lounge areas, fitness facilities, study rooms, a café, tanning salon, golf simulator, and pantry and serving area. The project site is bordered to the north by U.S. 50, to the east by the RT and UPRR tracks, to the south by multi-

family residential development, and to the west by commercial and multi-family residential development across Redding Avenue.

Exterior Areas

According to the Environmental Noise Assessment for the project site performed by Saxelby Acoustics, the proposed outdoor amenity areas are anticipated to be exposed to exterior noise levels of 58 dBA L_{dn}, which is within the normally acceptable noise level standard for multi-family residential uses of 65 dBA $L_{dn.}$

Interior Areas

The areas of the proposed project that are located closest to U.S. 50 and the UPRR and RT tracks would be exposed to exterior noise levels of 74 dBA L_{dn}. Modern building construction typically yields an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70dBA L_{dn} or less, additional noise control measures would not be required. However, portions of the proposed project would be exposed to exterior noise levels of 72-74 dBA L_{dn}, which would result in interior noise levels of 47-49 dBA L_{dn}.

Under CEQA, the effect that the existing environment would have on the proposed project does not constitute a significant impact. However; the project applicant may choose to implement measures, detailed in the Environmental Noise Assessment for the project site, which would reduce interior noise levels to within the City's 45 dBA L_{dn} interior noise level standard.

Operations of residential developments do not typically include substantial on-site sources of operational noise. Operation of the proposed project would involve vehicle trips to and from the project site. Vehicle trips associated with operation of the proposed project would result in changes to traffic on the existing roadway network within the project vicinity. As a result, project buildout would cause an increase in traffic noise levels on local roadways. Despite this increase in traffic levels, the proposed project is only predicted to increase traffic noise levels by a maximum of 1.5 dBA on Redding Avenue, North of 4th Avenue. This increase would be less than the City's 2 dBA increase threshold where existing noise levels are less than 60 dBA $L_{dn,}$ as outlined in Table EC 2 of the City's General Plan Noise Element.

In addition, the exposure of the project site to noise associated with the RT and UPRR railroad tracks, and traffic noise from U.S. 50, would not constitute a potential impact under CEQA, as they do not pertain to the impact of the proposed project on the environment. Furthermore, buildout of the project site was previously considered in the Master EIR. The proposed project would be consistent with the General Plan land use designation for the site, and, thus, potential noise increases resulting from buildout of the project site have been previously analyzed and the proposed project would not be anticipated to result in increased noise levels beyond the levels previously analyzed in the Master EIR. Consequently, project related noise would not result in the exposure of interior or exterior spaces to noise levels in excess of the City's standards beyond what was previously analyzed in the Master EIR and ***no additional environmental effects*** would result.

Question C

Construction phases of the proposed project would add to the noise environment in the immediate project vicinity. Activities associated with construction of the proposed project would have the potential to generate noise levels ranging from 76-90 dBA L_{max} at a distance of 50 feet; however, most of the proposed construction activities would occur at distances greater than 50 feet from

the nearest sensitive receptors such as the multi-family developments located immediately south and west of the project site. Construction activities would be temporary in nature an are anticipated to occur during normal daytime working hours.[12]

Increased truck traffic on local roadways associated with construction activities would also generate additional noise. The City of Sacramento's Noise Ordinance of the Municipal Code exempts construction activities from the noise standards, provided that they take place between the hours of 7:00 AM and 6:00P M, Monday through Saturday, and 9:00 AM and 6:00 PM Sundays and holidays. Although construction activities associated with the proposed project could result in infrequent periods of high noise levels, the noise would not occur for sustained periods of time and would only occur during City permitted construction noise hours.

Based on the above, the proposed project has the potential to generate noise levels exceeding the City of Sacramento's noise level standards for brief periods of time during construction activities. Implementation of Mitigation Measure 8-1 would reduce the above impact related to noise generation to a less-than-significant level. Therefore, implementation of the proposed project, with implementation of Mitigation Measure 8-1, would result in ***no additional significant environmental effects*** beyond what was analyzed by the Master EIR.

Questions D through F

For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened.[13] Accordingly, the City uses a threshold of significance for vibration levels of 0.5 in/sec PPV for residential and commercial areas, and 0.2 in/sec PPV for historic buildings and archaeological sites.

The primary vibration-generating activities associated with development of the proposed project would occur during demolition, grading, placement of infrastructure, and construction of foundations and structures. Construction activities would be temporary, and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Sacramento Municipal Code, and would likely only occur over portions of the project site at a time. Although vibration levels would vary depending on soil conditions, construction methods, and equipment used, Table 7 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 7
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

[12] Saxelby Acoustics. *Environmental Noise Assessment. The Retreat Student Housing.* November 7, 2018.
[13] California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. September 2013.

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.

As shown in the table, construction equipment anticipated to be used at the project site would not exceed the 0.5 in/sec PPV threshold used by the City for residential and commercial areas. In addition, the nearest existing residences to the project site are located to the southeast of the project site, over 50 feet away from the project site. Considering the distance between the project site and the nearest existing residences, the proposed project would not be anticipated to result in substantial vibration at the nearest existing residences. The nearest residences are located approximately 70 feet away from the project property line, and such residences would experience vibration levels lower than the levels presented in Table 7. Therefore, the proposed project would not expose any residential or commercial areas to vibration levels greater than 0.5 in/sec PPV due to project construction.

A vibratory roller is the only piece of construction equipment that could exceed the 0.2 in/sec PPV threshold used for exposure to historic buildings and archaeological sites if used within 25 feet of such a building or site. As discussed in the Cultural Resources section of this IS/MND, historic buildings or archaeological sites are not located in the vicinity of the proposed project site. Thus, the proposed project would not expose any historic buildings or archaeological sites to vibration levels greater than 0.2 in/sec PPV due to project construction.

Based on the above, the proposed project would not expose any residential or commercial areas, or historic buildings or archaeological sites to excessive vibration levels, and the project's impact would be less than significant. Considering that the proposed project would not result in a project-specific impact related to the exposure of future residents or structures to vibration levels exceeding the City's standards, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

8-1 *Prior to issuance of a grading permit, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the project plans and specifications, subject to review and approval by the City Planning Division. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *Construction activities shall only take place between the hours of 7:00 AM and 6:00 PM Monday through Saturday and 9:00 AM and 6:00 PM Sundays and holidays.*
- *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.*
- *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agessssncy shall comply with such regulations while in the source of project activity. Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.*

- *All stationary noise-generating equipment shall be located as far away as possible from neighboring property lines. Signs prohibiting unnecessary idling of internal combustion engines shall be posted. A truck route haul plan shall be created to avoid residential areas.*

- *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only. A noise complaint coordinator shall be retained amongst the construction crew to be responsible for responding to any local complaints about construction noise. When a complaint is received, the coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint and shall implement reasonable measures to resolve the compliant, as deemed acceptable by the City.*

Findings

Implementation of the above Mitigation Measure would reduce and project-specific impacts relating to Noise to a less-than-significant level. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
9. PUBLIC SERVICES A) Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?			X

Environmental Setting

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small areas just outside the City boundaries within the County limits. SFD provides fire protection and emergency medical services to the project area. First-response service is provided by Station 10, located at 5642 66th Street, approximately 1.5 miles south of the project site. Service is also provided by Station 6, located at 3301 Martin Luther King Boulevard approximately two miles west of the project site; Station 8, located at 5990 H Street approximately 1.4 miles north of the site; and Station 60, located at 3301 Julliard Drive approximately 1.8 miles east of the project site.

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City. The SPD provides law enforcement protection to the proposed project site from the Sacramento Police Department located at 300 Richards Boulevard, with is approximately 7.6 miles northwest of the project site. In addition to the SPD and Sheriff's Department, the California Highway Patrol and the Regional Transit Police Department provide police protection within the City of Sacramento.

The project site is within the Sacramento City Unified School District. Sacramento City Unified School District is the 11th largest school district in California and serves 47,900 students on 81 campuses. The nearest school is Hiram Johnson High School, which is located approximately 3.2 miles southwest of the project site.

The City of Sacramento Department of Youth, Parks and Community Enrichment oversees more than 2,400 acres of parkland, and manages more than 212 parks within the City. The project site is located adjacently north of Tahoe Tallac Park, east of Mae Fong Park (across Redding Avenue), approximately 0.68 miles east of Tahoe Park, 0.88 miles west of Granite Regional Park, and 1.31 miles north of Earl Warren Park.

Standards of Significance

For the purposes of this IS/MND, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2035 General Plan.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. These include police, fire protection, schools, libraries and emergency services (Chapter 4.10).

The General Plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects of development that could occur under the General Plan would be less than significant.

General Plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.4 that encourages joint-use development of facilities) reduce impacts on schools to a less-than-significant level. (Impacts 4.10-3, 4) Impacts on library facilities were considered less than significant (Impact 4.10-5).

Answers to Checklist Questions

Question A

The following discussions present the existing facilities currently serving the vicinity of the project, as well as the proposed project's impacts related to such facilities and services.

Fire Protection

The proposed project would include the development of a 224-unit student-oriented housing complex including 736 beds. Four fire stations are located in close proximity to the project site. The proposed project would be served by SFD Station 10, located approximately 1.8 miles southwest of the project site, Station 6 located approximately 2.25 miles west of the project site, Station 8 located approximately 1.25 miles north of the project site, and Station 60 located approximately 1.5 miles east of the project site. The General Plan Master EIR requires that the SFD maintain a ratio of one fire station per every 16,000 residents.

The proposed project is consistent with the 2035 General Plan land use designation and, thus, the increase in population associated with the proposed project would have already been anticipated by the City per the 2035 General Plan. According to the 2035 General Plan Master EIR, at full buildout of the General Plan, including the project site, the City would be required to provide approximately 12 new fire stations and additional fire personnel to accommodate the increase in population. Although the impacts to fire services from the proposed project have been anticipated in the Master EIR, the proposed project would still be required to pay any applicable development impact fees.

Police Protection

The proposed project would include on-site security features such as gated vehicular and pedestrian entry to interior parking areas and eight-foot tall privacy fencing alone the northern, eastern, and southern project site boundaries. The project site is currently served by the Rooney Police Station, located at 5303 Franklin Boulevard, approximately three miles west of the project site. The added population resulting from implementation of the proposed project would create an increased demand for police protection services in the area. However, because the proposed project is consistent with the General Plan, the associated increase in population has been anticipated by the City and would not constitute an additional significant impact. Although the

impacts to police services from the proposed project have already been anticipated by the City, the proposed project would still be required to pay any applicable development impact fees.

Schools

The proposed project consists of constructing a 224-unit student-oriented housing complex intended to serve the student population of the CSUS. However, the apartments would not be restricted to students only. As such, the potential exists for families and adults with children to live at the complex. However, it is anticipated that the majority of the residents at the proposed multi-family development would be CSUS students, most of who would not be expected to have children. In addition, the 65th Street Station Plan EIR concluded that most, if not all, of the SCUSD schools that would serve the project site are at or above capacity. The proposed project would be required to pay statutory developer fees under California Senate Bill (SB) 50, which required developers to pay a per square foot fee for new residential development. Because the proposed project would not generate students in excess of what has already been anticipated for the site by the City, and would be required to pay SB 50 developer fees, a less-than-significant impact would occur regarding school facilities and services.

Other Governmental Services

The proposed project would result in an increase in demand for other governmental services, such as library service. The Sacramento Public Library Joint Powers Authority provides library services to the area. The Colonial Heights Library, located approximately 1.7 miles southwest of the project site, currently serves the project site and the surrounding area. In addition, in November 2004, Sacramento voters approved Measure X, an initiative to continue a parcel tax. The parcel tax provides the library with 30 percent of its operating revenues. The proposed project would be required to participate in the annual Library Fund assessments and residential units in the project area would be subject to Measure X. Although the proposed project would cause an increase in demand for library facilities in the area, the existing and planned facilities would be adequate to accommodate the increase in demand. Therefore, the proposed project would not create impacts outside of those anticipated within the 2035 General Plan Master EIR.

Conclusion

The applicant would be required to pay all of the required development fees to the appropriate public services departments. Payment of such would ensure that impacts related to fire protection, police protection, school facilities, or other governmental services would not occur beyond what was anticipated in the 2035 General Plan. In addition, the proposed project includes on-site amenities such as study and meeting rooms which would decrease the impact of future residents on local libraries. Therefore, a less-than-significant impact would occur. Considering that the proposed project would not result in a project-specific impact related to Public Services, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Public Services. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
10. RECREATION Would the project: A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?			X
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?			X

Environmental Setting

The City of Sacramento Department of Youth, Parks and Community Enrichment maintains all parks and recreational facilities within the City of Sacramento. The Parks Department classifies parks according to three distinct types: 1) neighborhood parks; 2) community parks; and, 3) regional parks. Neighborhood parks are typically less than ten acres in size and are intended to be used primarily by residents within a half-mile radius. Community Parks are generally 10 to 60 acres and serve an area of approximately two to three miles, encompassing several neighborhoods and meeting the requirements of a large portion of the City. Regional parks are larger in size and are developed with a wide range of improvements not usually found in local neighborhood and community parks. As noted in the City's General Plan Background Report, the City currently contains 226 developed and undeveloped park sites, 88 miles of off-street bikeways and trails, 21 lakes/ponds or beaches, over 20 aquatic facilities, and extensive recreation facilities in the City parks. The 226 parks comprise 3,200 acres. Of these, 1,573 acres are neighborhood and community parks and the remaining are city and non-city regional parks. The City currently provides approximately 3.4 acres of neighborhood and community park per 1,000 persons citywide.

Residential and non-residential projects that are built in the City of Sacramento are required to pay a park development impact fee per Chapter 18.44 of the Sacramento City Code. The fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of neighborhood and community park facilities.

Standards of Significance

For purposes of this IS/MND, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified

a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies (Impacts 4.9-1 and 4.9-2).

Answers to Checklist Questions

Questions A and B

The Master EIR analyzed potential impacts to parks and recreational facilities with implementation of future projects, including the proposed project. Policies were included in the 2035 General Plan to ensure that future residential and non-residential development would not impact existing parks and recreational facilities and to ensure that adequate park and recreational facilities are provided to the residents of Sacramento. The Master EIR concluded that, with implementation of the policies in the General Plan 2035, future development would not have a significant impact on park and recreational facilities. Therefore, the proposed project would not accelerate substantial deterioration of existing parks and recreational facilities, nor would the proposed project require the construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

The proposed project consists of construction and operation of 224 multi-family residential units. The new residents introduced by the proposed project would likely use existing parks in the vicinity. Based on the number of beds proposed, the project would be expected to increase the total population by approximately 736 persons. The proposed project would be consistent with the City's 2035 General Plan, and, thus, the increased population that would result due to implementation of the proposed project was anticipated within the Master EIR. As discussed above, General Plan goals and policies have been adopted to ensure that adequate park and recreational facilities are provided to accommodate the increase in new residents (e.g., Goal ERC 2.1, Policy 2.2.5, and Policy 2.5.4).

According to the General Plan, the City's park service goal is to provide five acres of parkland per 1,000 persons. Because development of the project site would add a projected 736 persons to the area, the project would require approximately 3.68 acres of parkland. However, the proposed project would not include on-site park acreage because it is a multi-family development and does not trigger a subdivision map; therefore, in compliance with Chapter 18.56 of the Sacramento City Code, the project applicant would be required to pay Park Impact development fees. Payment of in lieu and/or development fees would ensure that a less-than-significant impact would occur regarding recreation infrastructure. Considering that the proposed project would not result in a project-specific impact related to recreation, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Recreation. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. TRANSPORTATION AND CIRCULATION Would the project: A) Roadway segments: degrade peak period level of service (LOS) from A, B, C or D (without the project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.			X
B) Intersections: degrade peak period level of service from A, B, C or D (without project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more?			X
C) Freeway facilities: off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service; project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or the expected ramp queue is greater than the storage capacity?			X
D) Transit: adversely affect public transit operations or fail to adequately provide for access to public transit?			X
E) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?			X
F) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?			X

DKS Associates conducted a transportation analysis for the project site which addressed the transportation and circulation conditions associated with construction and operation of the proposed project. The analysis focused on the projected impacts on the City street system including nearby intersections, project access points, and on-site circulation. Impacts of motorized vehicle traffic on roadway capacity, construction impacts, potential impacts to transit service, and pedestrian and bicycle infrastructure were also analyzed for the proposed project. The findings of the traffic analysis are discussed in the following sections.

Environmental Setting

The proposed project is located in the eastern portion of Sacramento, south of U.S 50, within the 65th Street Station Area Plan boundaries. The project site is bounded by UPRR tracks to the east, U.S. 50 to the north, Redding Avenue to the west, and multi-family residential development to the south.

U.S. 50, an eight-lane freeway, provides regional access to the project site. Primary access to U.S. 50 is located approximately 0.3-mile northwest of the project site and provided by way of an interchange with 65th Street.

Roadways

The Roadway component of the transportation system near the proposed project is described below.

- 65th Street is a north-south arterial roadway, consisting of four lanes, that forms the western boundary of the study area. To the north, it extends for about 0.2-mile to Elvas Avenue. To the south, it becomes 65th Street Expressway at 14th Avenue. 65th Street continues south to Florin Road, about 4.3 miles from the site.
- 69th Street is a north-south local street that extends from Folsom Boulevard to an intersection with Q Street and Redding Avenue. The northern half of the street is one-way southbound. The two-way section accommodates one travel lane in each direction.
- Fourth Avenue is an east-west local street. In the project site vicinity, it extends from 65th Street to Redding Avenue. The street has one travel lane in each direction, with a two-way-left-turn-lane along most of its length. A raised median and extra turning lanes exist near 65th Street.
- Redding Avenue is a local north-south street. It extends to the north to an intersection with 69th Street and Q Street. To the south, Redding Avenue extends to 14th Avenue. The street has one travel lane in each direction.
- Q Street is an east-west local street that has one lane in each direction. In the project site vicinity, Q Street extends from 65th Street to 69th Street/Redding Avenue.
- San Joaquin Street is an east-west local street that extends from 65th Street to a dead-end at the freight railroad tracks east of Business Drive. The street has one travel lane in each direction.

Study Intersections

The following intersections were evaluated in the Transportation Analysis:

1. 65th Street and 4th Avenue;
2. Redding Avenue and 4th Avenue;
3. Redding Avenue and 69th Street/Q Street; and
4. Redding Avenue and San Joaquin Street.

Site Access

Primary site access would be provided as the fourth leg of the intersection of Redding Avenue and 4th Avenue, while a second gated point of access for emergency response vehicles would be located at the northwestern boundary of the project site along Redding Avenue. The primary entry driveway leads to a turn-around area with two-gated entries and contains visitor parking for the clubhouse. The turn-around point is intended to ensure that a vehicle which cannot enter the project site gates would be able to reverse direction without impacting City street or sidewalk operations on Redding Avenue.

Transit

In the Sacramento area, public transit service is provided by Sacramento Regional Transit. The project site is located approximately 0.5-mile from the University/65th Street Light Rail Station, which serves as a major hub for light rail and bus transit. Bus lines at the station include routes 26, 38, 61, 65, 81, 82, and 87. In addition, the Gold Line light rail, which extends from the Sacramento Valley Station in Downtown Sacramento to the Historic Folsom Station, is accessible from the station.

Bicycle and Pedestrian Access

The pedestrian system surrounding the project site consists of sidewalks along major road segments such as Redding Avenue and 4th Avenue. Northwest of the project site, sidewalks exist along both sides of 65th Street. Marked crosswalks exist at the intersection of Redding Avenue and 4th Avenue, at the signalized intersection of 65th Street and Folsom Boulevard as well as Q Street. Pedestrian access to the CSUS campus is provided by way of Hornet Crossing, a pedestrian and bike tunnel, which crosses under the railroad tracks and is accessed from Elvas Avenue, about 100 feet northwest of the northern end of 65th Street. Bicycle lanes exist along both sides of Redding Avenue as well as San Joaquin Street, 69th Street, and Q Street.

Standards of Significance

For purposes of this IS/MND, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

Roadway Segments

- The traffic generated by a project degrades peak period level of service (LOS) from A, B, C or D (without the project) to E or F (with project); or
- The LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.

Intersections

- The traffic generated by a project degrades peak period level of service from A, B, C or D (without project) to E or F (with project); or
- The LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or
- The expected ramp queue is greater than the storage capacity.

Transit

- Adversely affect public transit operations; or
- Fail to adequately provide for access to public transit.

Bicycle Facilities

- Adversely affect bicycle travel, bicycle paths; or
- Fail to adequately provide for access by bicycle.

Pedestrian Circulation

- Adversely affect pedestrian travel, pedestrian paths; or
- Fail to adequately provide for access by pedestrians.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Transportation and circulation were discussed in the Master EIR in Chapter 4.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian and aviation components. The analysis included consideration of roadway capacity and identification of levels of service, and effects of the 2035 General Plan on the public transportation system. Provisions of the 2035 General Plan that provide substantial guidance include Mobility Goal 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), identification of level of service standards (Policy M 1.2.2), support for state highway expansion and management consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy (SACOG MTP/SCS) (Policy M 1.5.6) and development that encourages walking and biking (Policy LU 4.2.1).

While the General Plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that General Plan development would result in significant and unavoidable effects. See Impacts 4.12-3 (roadway segments in adjacent communities, and Impact 4.12-4 (freeway segments).

Answers to Checklist Questions

Questions A through C

The following provides a summary of the project trip generation, distribution, and Existing Plus Project LOS.

Project Trip Generation and Distribution

DKS associates performed field reconnaissance to determine the traffic control characteristics for each of the study area intersections and roadway segments. In addition, operational analysis, which calculates the average control delay per vehicle at intersections and assigns and LOS designation based on the delay, was conducted for area intersections. Trip generation estimates for the proposed project were generated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, Tenth Edition. Vehicle trips were estimated for AM and PM peak weekday commuter hours as well as daily weekday time periods. The analysis of project trip generation

used the Resident variable within the ITE Trip Generation Manual in order to provide a conservative estimate for total trips generated from project operations. The results of the analysis are detailed below in Table 8.

Table 8
Project Trip Generation

Land Use	Quantity	ITE Land Use Code	Gross Vehicle Trips Generated						
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
Residential	736 Residents	225	3,042	34	87	121	122	113	235

Source: DKS Associates. Transportation Analysis. Retreat at Sacramento. November 14, 2018.

As shown in Table 8 operation of the proposed project would be anticipated to result in 3,042 daily, 121 AM peak hour, and 235 PM peak hour trips. The distribution of trips associated with the proposed project was derived from the regional Sacramento Activity-Based Travel Simulation Model (SACSIM), observations of travel patterns near the site, and knowledge of the proposed access locations for the site. Trip distribution varied by time of day and direction of travel.

Existing Plus Project Intersection LOS

For the Existing Plus Project conditions, trips associated with the proposed project were added to existing traffic volumes in the project area. The resulting study intersection LOS is shown in Table 9 below. As shown in the table, the proposed project would increase average delay and traffic volumes at several study area intersections; however, the resultant operating conditions would not exceed the City's minimum LOS goals. Specifically, the project would not degrade operations of any intersections from A, B, C, or D to E or F. For intersections which currently operate at E or F, the project-generated traffic would not cause an increase in average vehicle delay that would exceed the City's five-second threshold.

The 65th Street Station Area Plan EIR analyzed freeway operations at the U.S. 50 interchange with 65th Street, which provides regional access to the project site. The results of the analysis showed that, under buildout of Scenario C of the 65th Street Station Area Plan, the Eastbound and Westbound U.S. 50 freeway interchanges from 59th to 65th Street would operate at LOS E. Queuing results indicated that queues for the eastbound 65th Street off-ramp would be accommodated within the ramp storage space; however, queues on the westbound 65th Street off-ramp would extend beyond the ramp gore and into the auxiliary lane that extends between 65th Street and the westbound on-ramp at the adjacent Howe Avenue interchange during the PM peak hour. As such, all future development within the 65th Street Station Area, including the proposed project, would be required to participate in the 65th Street Station Area Finance Plan to fund, on a fair share basis, the cost of widening the impacted westbound U.S. 50 off-ramp at 65th Street. Because the proposed project is consistent with the 65th Street Station Area Plan and General Plan, it would not result in impacts to freeway facilities beyond what was anticipated for in the 65th Street Station Area Plan EIR and Master EIR. Therefore, the proposed project would result in a less-than-significant impact related to freeway facilities.

Table 9
Existing Plus Project Intersection LOS

Study Intersection	Existing				Existing Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. 65th Street & 4th Avenue	20.5	C	24.7	C	20.9	C	26.2	C
2. Redding Avenue & 4th Avenue	11.5	B	9.6	A	12.2	B	11.6	B
• Northbound	12.8	B	10.4	B	14.4	B	12.5	B
• Southbound	8.1	A	8.9	A	8.9	A	12.0	B
• Eastbound	8.9	A	8.8	A	9.4	A	10.4	B
• Westbound	-	-	-	-	8.7	A	9.8	A
3. Redding Avenue/69th Street & Q Street[1]	8.7	A	9.3	A	9.2	A	10.8	B
• Northbound Left	7.7	A	7.5	A	7.9	A	7.7	A
• Southbound	17.7	C	16.1	C	24.0	C	25.4	D
• Eastbound	10.0	B	9.3	A	10.2	B	9.7	A
4. Redding Avenue & San Joaquin Street	9.6	A	8.9	A	9.6	A	8.9	A
• Northbound	10.5	B	8.6	A	10.5	B	8.6	A
• Southbound	9.0	A	9.1	A	9.0	A	9.2	A
• Eastbound	8.7	A	8.1	A	8.7	A	8.1	A
• Westbound	8.7	A	8.9	A	8.7	A	9.0	A

1. Intersection operations negatively impacted by light rail grade crossing.

Source: DKS Associates, 2018.

Conclusion

Based on the above, the proposed project would not conflict with the City's established minimum LOS policies under Existing Plus Project conditions. Development of the project site has been previously anticipated and analyzed for multi-family uses. As a result, the proposed project would result in vehicle trips consistent with what was has been anticipated for buildout of the project site and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

Question D

As discussed above, the project site is located approximately 0.5-mile from the University/65th Street Light Rail Station, which serves as a major hub for light rail and bus transit. Bus lines at the station include routes 26, 38, 61, 65, 81, 82, and 87. In addition, the Gold Line light rail, which extends from the Sacramento Valley Station in Downtown Sacramento to the Historic Folsom Station. Additionally, extensive bicycle and pedestrian facilities exist as part of the 65th Street Station Area Plan. The proposed project would tie into existing bicycle and pedestrian facilities along Redding Avenue as well as grant additional on-site easements for future bicycle and pedestrian travel along the northern and eastern project boundaries. Therefore, impacts related to bicycle facilities would be less than significant. Considering that the proposed project would not result in a project-specific impact related to bicycle facilities, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Question E

Bicycle lanes exist along both sides of Redding Avenue as well as San Joaquin Street, 69th Street, and Q Street. A nearby bike tunnel provides bicycle access to the CSUS campus and the proposed project would include an easement for future additional bicycle infrastructure throughout the project site and on the northern and eastern borders of the site adjacent to the UPRR tracks. Therefore, impacts related to bicycle facilities would be less than significant. Considering that the proposed project would not result in a project-specific impact related to bicycle facilities, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Question F

The proposed project would include construction of a new access driveway as the fourth leg of the intersection at Redding Avenue and 4th Avenue. As shown in Table 9, the Intersection operates at LOS B during the AM and PM peak hours both with and without the proposed project. DKS Associates assumed that the gated entries to the site would operate like gates at parking garages and the City of Sacramento typically assumes a seven-second average time for such gates.

As discussed above, the results of the analysis for queuing at the project entry indicated that storage space for two vehicles (approximately 50 feet), would be adequate over 98 percent of operational time. As such, the distance of the entryway would be sufficient and traffic queues would not result in impacts to pedestrian travel or paths.

Sidewalks exist along Redding Avenue and 4th Avenue and the proposed project would include installation of sidewalks within the project site. The pedestrian network within the project site would provide access to all site amenities, buildings, and parking areas, while providing external connection to the existing pedestrian network along Redding Avenue. The project would not

involve any modifications to the existing roadway network that could adversely affect pedestrian travel or pedestrian paths. Therefore, the proposed project would result in a less-than-significant impact related to pedestrian access. Considering that the proposed project would not result in a project-specific impact related to pedestrian access, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Transportation and Circulation. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. UTILITIES AND SERVICE SYSTEMS Would the project: A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?			X
B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?			X

Environmental Setting

The project site's existing utilities and service systems are discussed below.

Wastewater Service

The proposed project would be provided wastewater collection and treatment services by the SRCSD. The City's combined sewer system conveys all wastewater collected into the SRCSD interceptor system where the it is conveyed to Sacramento Regional Wastewater Treatment Plant (SRWWTP) located near Elk Grove. The SRWWTP is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd). According to the Regional Water Quality Control Board's 2016 wastewater discharge permit for SRCSD's SRWWTP, the average dry weather flow at the time was approximately 119 mgd. Expansion of the SRWWTP was previously proposed; however, due to slow growth and potential reclamation, the SRCSD decided not to expand the plant at that time. Sewage treated by the SRCSD at the SRWWTP is then discharged into the Sacramento River.

The proposed project would include construction of sanitary sewer lines that would be routed throughout the site and connected to all proposed structures. The proposed sanitary sewer lines would direct wastewater to the existing eight-inch sanitary sewer infrastructure within Redding Avenue that connects to an existing 12-inch water main southwest of the project site at 4th Avenue.

Water Supply Service

Water service for the proposed project would be provided by the City of Sacramento. The City of Sacramento uses surface water from the Sacramento and American rivers to meet the majority of the City's water demands. To meet the City's water demand, the City uses surface water from the Sacramento and American rivers, and groundwater pumped from the North American and South American Subbasins. The City's 2015 UWMP asserts that the City has a current total of 275,917 acre-feet per year (AFY) in water supplies during dry years and expects this total to increase to 294,419 AFY by 2035. The total City retail water demand in 2015 was 84,835 AFY and is expected to increase to 149,213 AFY in 2035. The current on-site water demand is 11.7 AFY based on a calculation of 0.9 AFY/acre. The proposed project site would include placement of water lines throughout the project site that would connect to an existing eight-inch water main located within Redding Avenue along the site's western boundary. In addition to the water lines placed for domestic uses, separate water lines would be routed throughout the site to provide fire service access to water.

Solid Waste Service

The City of Sacramento does not provide commercial solid waste collection services. Rather, commercial garbage, recycling or yard waste services are provided by a franchised hauler authorized by the Sacramento Solid Waste Authority to collect commercial garbage and commingled recycling within the City. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste by the City of Sacramento. According to the Master EIR, the landfill is permitted to accept up to 10,815 tons per day and the current peak and average daily disposal is much, much lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area, including the anticipated population growth, until the year 2065. Solid waste collected at residential uses in the area is currently disposed of at the Kiefer Landfill.

Standards of Significance

For the purposes of this IS/MND, an impact would be considered significant if the project resulted in the following:

- Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments; or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the General Plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the Master EIR concluded that the potential increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and which could require construction of new water supply facilities, would result in a significant and unavoidable effect (Impact 4.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a less-than-significant effect (Impact 4.11-4). Impacts on solid waste facilities were less than significant (Impact 4.11-5). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings, would reduce effects for energy to a less-than-significant level.

Answers to Checklist Questions

Questions A and B

The proposed project site is currently developed with the existing buildings and warehouses associated with the Dorris Lumber and Moulding Company. The site is adjacent to existing residential and commercial development; thus, all urban utilities and services are available to the proposed development.

Wastewater

The proposed project would be provided wastewater collection and treatment services by the SRCSD. Wastewater generated in the project area is collected in the SRCSD system through a series of sewer pipes and pump stations. Once collected, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to the SRWWTP. The proposed project would include construction of connections to the existing 8-inch sewer main located in the Redding Avenue ROW. The project's consistency the General Plan land use designation would ensure the demand for wastewater service would not exceed the amount anticipated for the site in the General Plan Master EIR. The SRCSD would be able to provide sufficient wastewater services and conveyance to serve full buildout of the City, including the project area, per the 2035 Master EIR. Therefore, adequate capacity exists to serve the project site's demands.

Water Supply

The City of Sacramento is responsible for providing and maintaining water for the project site. The Urban Water Management Plan analyzes the water supply, water demand, and water shortage contingency planning for the City's service area, which would include the proposed project site. As discussed above, the City anticipated a total retail water demand pf 149,213 AFY and a total water supply of 294,419 AFY in 2035. As such, the City would have an approximately 415,206 AFY surplus of water supply after buildout of the 2035 General Plan.[14] The proposed project would be anticipated to result in a water demand of 27 AFY based on a calculation of 0.12 AFY/dwelling unit (du). The current on-site Dorris Lumber and Moulding Company uses approximately 11.7 AFY. Thus, the proposed project would be expected to result in a net increase of 15.3 AFY.

Based on the above, adequate capacity is expected to be available to serve the proposed project's water demands. The proposed project is consistent with land use and zoning designations and would not generate an increase in demand from what has already been anticipated in the Master EIR.

Solid Waste

Solid waste from surrounding developments are currently being transferred to Kiefer Landfill for disposal. The 2035 General Plan Master EIR concluded that adequate capacity at local landfills exists for full buildout of the General Plan. The proposed project is consistent with what is anticipated for the site, and the associated increase in solid waste disposal needs was considered in the 2035 General Plan Master EIR analysis. The proposed project would not generate an increase in solid waste from what has been anticipated in the Master EIR. As such, adequate capacity would be expected to be available to serve the proposed project's solid waste disposal needs.

Conclusion

Because adequate capacity exists to serve the project's demands in addition to existing commitments, and construction of new utilities or expansion of existing facilities would not be required, the proposed project would result in a less-than-significant impact. Considering that the proposed project would not result in a project-specific impact related to utilities and service

[14] City of Sacramento. *2015 Urban Water Management Plan.* June 2016.

systems, the proposed project would result in ***no additional environmental effects*** beyond the effects analyzed in the Master EIR.

Mitigation Measures

None required.

Findings

The proposed project would have no additional project-specific environmental effects relating to Utilities and Service Systems. Therefore, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
13. TRIBAL CULTURAL RESOURCES Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: A) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?		X	
B) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X	

Environmental Setting

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the City. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the 2035 General Plan Background Report, are located within close proximity to the Sacramento and American rivers and other watercourses.

The 2035 General Plan land use diagram designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive prehistoric resources. High sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today; however, all such areas are outside of the immediate project vicinity. Because the proposed project site is located approximately 0.75-mile south of the American River, there exists potential for implementation of the proposed project to disturb previously undiscovered archeological or paleontological resources. The 2035 General Plan Background Report also defines moderate sensitivity areas, which are areas such as creeks, other watercourses, and high spots near waterways where the discovery of villages is unlikely, but campsites or special use sites may have existed. Moderate areas are often disturbed by siltation, or development; however, discovery of new archaeological resources is still possible.

Standards of Significance

For purposes of this IS/MND, tribal cultural resource impacts may be considered significant if construction and/or implementation of the proposed project would result in a substantial adverse change in the significance of a tribal cultural resource that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General Plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort. (Policy HCR 2.1.15)

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archaeological resources. (Impacts 4.4-1, 2)

Answers to Checklist Questions

As discussed in Section 4, Cultural Resources, of this IS, a records search was conducted by staff at the NCIC located at CSUS, to research previous sites and surveys within 0.25-mile of the project site. The results of the search determined that previously recorded prehistoric or historic resourced have not been identified within the project site. However, five previously recorded historic resources were identified within 0.25-mile of the project site. In addition, as discussed earlier in this IS, the project site does not meet eligibility criteria for listing on the CRHR or the Sacramento register of historical resources as a historical resource.

<u>Questions A and B</u>

Cultural resources are generally defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. The City notified all applicable Native American tribes per the requirements of AB 52. Two Native American Tribes, the United Auburn Indian Community (UAIC), and the Shingle Springs Band of Miwok Indians responded to the City's AB 52 notification with a request for further consultation regarding the proposed project Tribal consultation was completed by the City as required by AB 52.

On July 13, 2018, a Sacred Lands File Search for the project site was requested from the Native American Heritage Commission (NAHC). A response from the NAHC was received on July 31, 2018, which stated that the search had identified the presence of sacred sites in the immediate area of the project site, and recommended contacting aforementioned tribes for consultation.

A mixed-strategy pedestrian survey, focusing on the unpaved areas of the project site, was conducted on August 9, 2018. The project site survey did not find any evidence of surface prehistoric deposits or signs of historic-period activities related to farming, ranching, or construction. The results of the survey indicated that, if any prehistoric sites previously existed within the project site, they would now be obscured or buried.

Based on the survey results and given the disturbed nature of the project site, surface tribal cultural resources would not likely be found on-site during grading and construction. However, unknown resources below the surface could be encountered during grading and excavation. Therefore, the proposed project could have a potentially significant impact related to damaging or destroying tribal cultural resources. Implementation of Mitigation Measures 13-1 through 13-3 and completion of AB 52 consultation would reduce the impact to a less-than-significant level. Thus, with implementation of Mitigation Measures 13-1 through 13-3, implementation of the proposed project would have ***no additional significant environmental effects*** beyond what was previously analyzed in the Master EIR.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts related to Cultural Resources to a less-than-significant level.

13-1 ***Conduct Cultural Resources Sensitivity and Awareness Training Prior to Ground-Disturbing Activities***

The City shall require the applicant/contractor to provide a cultural and tribal cultural resources sensitivity and awareness training program for all personnel involved in project construction, including field consultants and construction workers. The training will be developed in coordination with interested culturally affiliated Native American Tribes. The training will be conducted in coordination with qualified cultural resources specialists. The City may invite Native American Representatives from interested culturally affiliated Native American Tribes to participate. The training shall be conducted before any construction activities begins on the project site. The program will include relevant information regarding sensitive tribal cultural resources and archaeological resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The worker cultural resources sensitivity and awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and who to contact if any potential Tribal Cultural Resources or archaeological resources or artifacts are encountered.

The program will emphasize the requirement for confidentiality and culturally-appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American Tribal values.

13-2 ***In the Event that Tribal Cultural Resources are Discovered During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impact.***

If archaeological resources, or tribal cultural resources, are encountered in the project area during construction, the following performance standards shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:

- *Each resource will be evaluated for California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes.*

If a tribal cultural resource is determined to be eligible for listing on the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

i. Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

ii. Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:

1. *Protect the cultural character and integrity of the resource.*
2. *Protect the traditional use of the resource.*
1. *Protect the confidentiality of the resource.*
2. *Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.*
3. *Rebury the resource in place.*
4. *Protect the resource.*

Avoidance and preservation in place is the preferred manner of mitigating impacts to tribal cultural resources and archaeological resources and will be accomplished, if feasible, by several alternative means, including:

- *Planning construction to avoid tribal cultural resources, archaeological sites and/ or other resources; incorporating sites within parks, green-space or other open space; covering archaeological sites; deeding a site to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.*
- *Recommendations for avoidance of Tribal Cultural Resources and Native American archaeological sites will be reviewed by the City representative,*

interested culturally affiliated Native American Tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project area to avoid cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or modification or realignment to avoid highly significant features within a cultural resource.

- *Native American Representatives from interested culturally affiliated Native American Tribes will be allowed to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.*
- *If the discovered resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100 foot buffer area, before construction restarts. The boundary of a Tribal Cultural Resource or a Native American archaeological site will be determined in consultation with interested culturally affiliated Native American Tribes and such Tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American Representatives from interested culturally affiliated Native American Tribes.*
- *The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area".*
- *Native American Representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long term management of any discovered Tribal Cultural Resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within Tribal Cultural Resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.*

To implement these avoidance and minimization standards, the following procedures shall be followed in the event of the discovery of a tribal cultural resource:

- *If any tribal archaeological resources or Native American materials, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or Native American architectural remains or articulated or disarticulated human remains are discovered on the project site, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural resources),and the construction contractor shall immediately notify the project's City representative.*
- *The City shall coordinate the investigation of the find with a qualified (meeting the Secretary of the Interior's Qualification Standards for Archaeology) archaeologist approved by the City and with one or more*

interested culturally affiliated Native American Tribes that respond to the City's invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American Tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American Tribes which are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

- *The City shall consider management recommendations for tribal cultural resources, including Native American archaeological resources, that are deemed appropriate, including resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, preservation in place or other measures. The contractor shall implement any measures deemed by the City to be necessary and feasible to avoid or minimize significant impacts to the cultural resources. These measures may include inviting an interested culturally affiliated Native American Tribe to monitor ground-disturbing activities whenever work is occurring within 100 feet of the location of a discovered Tribal Cultural Resource or Native American archaeological site.*
- *If an adverse impact to tribal cultural resources, including Native American archaeological resources, occurs then consultation with interested culturally affiliated Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 shall occur, in order to identify mitigation for the impact.*

13-3 ***Implement Procedures in the Event of the Inadvertent Discovery of Native American Human Remains.***

If an inadvertent discovery of Native American human remains is made at any time during project-related construction activities or project planning, the City will implement the procedures listed above in Mitigation Measure 2. The following performance standards shall be met prior to implementing or continuing actions such as construction, that may result in damage to or destruction of human remains: In accordance with the California Health and Safety Code, if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the burial and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the

landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the California Health and Safety Code Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

Findings

All additional significant environmental effects of the proposed project relating to Tribal Cultural Resources can be mitigated to a less-than-significant level. Therefore, implementation of the proposed project would result in ***no additional significant environmental effects***.

MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
14. MANDATORY FINDINGS OF SIGNIFICANCE			
A.) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X
B.) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X

Answers to Checklist Questions

Question A

With implementation of project-specific mitigation measures, the proposed project would not adversely impact sensitive natural communities or special-status animals. However, a small potential exists for previously undiscovered cultural resources and/or human remains to be unearthed during demolition and site grading activities. The proposed project would implement and comply with applicable Sacramento 2035 General Plan policies, as discussed throughout this IS/MND. With implementation of the mitigation measures required by this IS/MND, compliance with City of Sacramento 2035 General Plan policies, and application of standard BMPs during construction, development of the proposed project would not result in any of the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, the proposed project's impact would be less than significant and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

Question B

The proposed project includes the development of a 12.25-acre site with a 224-unit student-oriented housing complex. The proposed project is consistent with the 2035 General Plan land use designation and, thus, the proposed project was anticipated by the City per the 2035 General Plan. As such, the proposed project was included in the cumulative analysis of City buildout in the Master EIR. Applicable policies from the 2035 General Plan would be implemented as part of the proposed project, as well as the project-specific mitigation measures included in this IS/MND, to reduce the proposed project's contribution to potentially cumulative impacts. The potential impacts of the proposed project would be individually limited and would not be cumulatively considerable. As demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable 2035 General Plan policies. When viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Sacramento and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

Question C

As described throughout this IS/MND, implementation of the proposed project could result in temporary impacts related to geology and soils, hazardous materials, biological resources, and noise during the construction period. proposed project would be required to implement the project-specific mitigation measures within this IS/MND, as well as applicable policies of the 2035 General Plan, to reduce any potential direct or indirect impacts that could occur to human beings or various resources and, as demonstrated in this IS/MND, with implementation of the identified mitigation measures, all impacts would be reduced to less-than-significant levels. Therefore, the proposed project's impact would be less than significant and ***no additional significant environmental effects*** would occur with implementation of the proposed project.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by the proposed project.

	Aesthetics	X	Hazards
	Air Quality	X	Noise
X	Biological Resources		Public Services
	Cultural Resources		Recreation
X	Geology and Soils		Transportation/Circulation
	Hydrology and Water Quality		Utilities and Service Systems
X	Tribal Cultural Resources		

SECTION V - DETERMINATION

On the basis of the IS/MND:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR; (b) the proposed project is consistent with the 2035 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the proposed project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

Signature

Date

Tom Buford, Principal Planner

Printed Name

REFERENCES CITED

It should be noted that all of the technical reports used for the purposes of the analysis throughout this IS/MND are available upon request at the City of Sacramento Community Development Department located at 300 Richards Boulevard, Third Floor, Sacramento, CA 95811. The following documents are referenced information sources used for the analysis within this IS/MND:

California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

California Constitution, Article XI, Section 7. Available at: http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&sectionNum=SEC.%207.&article=XI. Accessed September 2018.

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Saxelby Acoustics. *Environmental Noise Assessment. The Retreat Student Housing.* November 7, 2018.

Sycamore Environmental Consultants. *Biological Resources Evaluation for the Redding Avenue Student Housing Project.* October 10, 2018.

Tree Associates. *Arborist Report. Redding Avenue Multi-Family Project.* August 29, 2018.

The California Burrowing Owl Consortium. *Burrowing Owl Survey Protocol and Mitigation Guidelines.* April 1993.

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United States Department of Agriculture Natural Resources Conservation Science. *Web Soil Survey.* Available at: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed June 2018.

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APPENDIX A

Redding Avenue Project

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	224.00	Dwelling Unit	13.25	224,000.00	598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	422.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Demolition - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per DKS Associates trip generation estimates

Mobile Land Use Mitigation -

Area Mitigation -

Trips and VMT - Per applicant provided haul length information

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblGrading	AcresOfGrading	75.00	13.25
tblGrading	MaterialExported	0.00	514.00
tblGrading	MaterialImported	0.00	17,514.00
tblLandUse	LotAcreage	14.00	13.25
tblProjectCharacteristics	CO2IntensityFactor	590.31	422.59
tblTripsAndVMT	HaulingTripLength	20.00	21.05
tblVehicleTrips	ST_TR	7.16	13.58
tblVehicleTrips	SU_TR	6.07	13.58
tblVehicleTrips	WD_TR	6.59	13.58

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					
2019	0.5724	2.9430	2.0227	4.7200e-003	0.3332	0.1274	0.4605	0.1321	0.1187	0.2508	0.0000	430.5555	430.5555	0.0787	0.0000	432.5219
2020	1.4754	2.7504	2.8377	5.6900e-003	0.1788	0.1433	0.3221	0.0479	0.1355	0.1835	0.0000	503.3726	503.3726	0.0747	0.0000	505.2396
Maximum	**1.4754**	**2.9430**	**2.8377**	**5.6900e-003**	**0.3332**	**0.1433**	**0.4605**	**0.1321**	**0.1355**	**0.2508**	**0.0000**	**503.3726**	**503.3726**	**0.0787**	**0.0000**	**505.2396**

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					
2019	0.5724	2.9430	2.0227	4.7200e-003	0.3332	0.1274	0.4605	0.1321	0.1187	0.2508	0.0000	430.5552	430.5552	0.0787	0.0000	432.5216
2020	1.4754	2.7504	2.8377	5.6900e-003	0.1788	0.1433	0.3221	0.0479	0.1355	0.1835	0.0000	503.3723	503.3723	0.0747	0.0000	505.2392
Maximum	**1.4754**	**2.9430**	**2.8377**	**5.6900e-003**	**0.3332**	**0.1433**	**0.4605**	**0.1321**	**0.1355**	**0.2508**	**0.0000**	**503.3723**	**503.3723**	**0.0787**	**0.0000**	**505.2392**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-3-2019	9-2-2019	1.9898	1.9898
2	9-3-2019	12-2-2019	1.0483	1.0483
3	12-3-2019	3-2-2020	1.2201	1.2201
4	3-3-2020	6-2-2020	1.2028	1.2028
5	6-3-2020	9-2-2020	1.2018	1.2018
6	9-3-2020	9-30-2020	0.3658	0.3658
		Highest	1.9898	1.9898

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	1.0851	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648
Energy	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	337.5917	337.5917	0.0160	5.3900e-003	339.5987
Mobile	0.9593	4.1354	11.3674	0.0345	2.9117	0.0310	2.9427	0.7808	0.0290	0.8098	0.0000	3,169.1790	3,169.1790	0.1556	0.0000	3,173.0689
Waste						0.0000	0.0000		0.0000	0.0000	20.9162	0.0000	20.9162	1.2361	0.0000	51.8190
Water						0.0000	0.0000		0.0000	0.0000	5.1636	20.1118	25.2753	0.0192	0.0115	29.1855
Total	**2.0590**	**4.2870**	**13.7356**	**0.0354**	**2.9117**	**0.0539**	**2.9655**	**0.7808**	**0.0519**	**0.8327**	**26.0798**	**3,530.6559**	**3,556.7356**	**1.4305**	**0.0169**	**3,597.5368**

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	1.0851	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648
Energy	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	337.5917	337.5917	0.0160	5.3900e-003	339.5987
Mobile	0.9073	3.7679	10.0515	0.0295	2.4672	0.0269	2.4941	0.6616	0.0252	0.6868	0.0000	2,713.9248	2,713.9248	0.1368	0.0000	2,717.3455
Waste						0.0000	0.0000		0.0000	0.0000	20.9162	0.0000	20.9162	1.2361	0.0000	51.8190
Water						0.0000	0.0000		0.0000	0.0000	5.1636	20.1118	25.2753	0.0192	0.0115	29.1855
Total	**2.0071**	**3.9195**	**12.4197**	**0.0305**	**2.4672**	**0.0498**	**2.5170**	**0.6616**	**0.0480**	**0.7096**	**26.0798**	**3,075.4017**	**3,101.4814**	**1.4118**	**0.0169**	**3,141.8134**

	ROG	NOx	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	**2.52**	**8.57**	**9.58**	**14.01**	**15.26**	**7.65**	**15.13**	**15.26**	**7.44**	**14.78**	**0.00**	**12.89**	**12.80**	**1.31**	**0.00**	**12.67**

3.0 Construction Detail

Construction Phase

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/3/2019	6/28/2019	5	20	
2	Site Preparation	Site Preparation	6/29/2019	7/12/2019	5	10	
3	Grading	Grading	7/13/2019	8/23/2019	5	30	
4	Paving	Paving	8/26/2019	9/20/2019	5	20	
5	Building Construction	Building Construction	9/23/2019	11/13/2020	5	300	
6	Architectural Coating	Architectural Coating	10/7/2019	11/27/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.25

Acres of Paving: 0

Residential Indoor: 453,600; Residential Outdoor: 151,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
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
Demolition	6	15.00	0.00	525.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,254.00	10.00	6.50	21.05	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	161.00	24.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.0592	0.0000	0.0592	8.9600e-003	0.0000	8.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**	**0.0592**	**0.0180**	**0.0772**	**8.9600e-003**	**0.0167**	**0.0257**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.3100e-003	0.0816	0.0197	2.1000e-004	4.4300e-003	3.4000e-004	4.7700e-003	1.2200e-003	3.3000e-004	1.5400e-003	0.0000	20.2962	20.2962	1.2100e-003	0.0000	20.3264
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	6.1000e-004	4.3000e-004	4.6000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0071	1.0071	3.0000e-005	0.0000	1.0078
Total	**2.9200e-003**	**0.0820**	**0.0243**	**2.2000e-004**	**5.5300e-003**	**3.5000e-004**	**5.8800e-003**	**1.5100e-003**	**3.4000e-004**	**1.8400e-003**	**0.0000**	**21.3032**	**21.3032**	**1.2400e-003**	**0.0000**	**21.3342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0592	0.0000	0.0592	8.9600e-003	0.0000	8.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**	**0.0592**	**0.0180**	**0.0772**	**8.9600e-003**	**0.0167**	**0.0257**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.3100e-003	0.0816	0.0197	2.1000e-004	4.4300e-003	3.4000e-004	4.7700e-003	1.2200e-003	3.3000e-004	1.5400e-003	0.0000	20.2962	20.2962	1.2100e-003	0.0000	20.3264
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	6.1000e-004	4.3000e-004	4.6000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0071	1.0071	3.0000e-005	0.0000	1.0078
Total	**2.9200e-003**	**0.0820**	**0.0243**	**2.2000e-004**	**5.5300e-003**	**3.5000e-004**	**5.8800e-003**	**1.5100e-003**	**3.4000e-004**	**1.8400e-003**	**0.0000**	**21.3032**	**21.3032**	**1.2400e-003**	**0.0000**	**21.3342**

3.3 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.6000e-004	2.6000e-004	2.7600e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6042	0.6042	2.0000e-005	0.0000	0.6047
Total	**3.6000e-004**	**2.6000e-004**	**2.7600e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6042**	**0.6042**	**2.0000e-005**	**0.0000**	**0.6047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.6000e-004	2.6000e-004	2.7600e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6042	0.6042	2.0000e-005	0.0000	0.6047
Total	**3.6000e-004**	**2.6000e-004**	**2.7600e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6042**	**0.6042**	**2.0000e-005**	**0.0000**	**0.6047**

3.4 Grading - 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					
Fugitive Dust					0.0992	0.0000	0.0992	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.0992**	**0.0357**	**0.1350**	**0.0507**	**0.0329**	**0.0836**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0103	0.3625	0.0880	9.4000e-004	0.0200	1.5400e-003	0.0216	5.5000e-003	1.4800e-003	6.9700e-003	0.0000	91.1925	91.1925	5.3600e-003	0.0000	91.3265
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	1.2100e-003	8.5000e-004	9.2100e-003	2.0000e-005	2.2000e-003	2.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	2.0141	2.0141	6.0000e-005	0.0000	2.0157
Total	**0.0115**	**0.3634**	**0.0972**	**9.6000e-004**	**0.0222**	**1.5600e-003**	**0.0238**	**6.0900e-003**	**1.4900e-003**	**7.5700e-003**	**0.0000**	**93.2067**	**93.2067**	**5.4200e-003**	**0.0000**	**93.3422**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0992	0.0000	0.0992	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.0992**	**0.0357**	**0.1350**	**0.0507**	**0.0329**	**0.0836**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0103	0.3625	0.0880	9.4000e-004	0.0200	1.5400e-003	0.0216	5.5000e-003	1.4800e-003	6.9700e-003	0.0000	91.1925	91.1925	5.3600e-003	0.0000	91.3265
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	1.2100e-003	8.5000e-004	9.2100e-003	2.0000e-005	2.2000e-003	2.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	2.0141	2.0141	6.0000e-005	0.0000	2.0157
Total	**0.0115**	**0.3634**	**0.0972**	**9.6000e-004**	**0.0222**	**1.5600e-003**	**0.0238**	**6.0900e-003**	**1.4900e-003**	**7.5700e-003**	**0.0000**	**93.2067**	**93.2067**	**5.4200e-003**	**0.0000**	**93.3422**

3.5 Paving - 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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.1000e-004	4.3000e-004	4.6000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0071	1.0071	3.0000e-005	0.0000	1.0078
Total	**6.1000e-004**	**4.3000e-004**	**4.6000e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0071**	**1.0071**	**3.0000e-005**	**0.0000**	**1.0078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.1000e-004	4.3000e-004	4.6000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0071	1.0071	3.0000e-005	0.0000	1.0078
Total	**6.1000e-004**	**4.3000e-004**	**4.6000e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0071**	**1.0071**	**3.0000e-005**	**0.0000**	**1.0078**

3.6 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	0.0850	0.7588	0.6179	9.7000e-004		0.0464	0.0464		0.0437	0.0437	0.0000	84.6375	84.6375	0.0206	0.0000	85.1530
Total	**0.0850**	**0.7588**	**0.6179**	**9.7000e-004**		**0.0464**	**0.0464**		**0.0437**	**0.0437**	**0.0000**	**84.6375**	**84.6375**	**0.0206**	**0.0000**	**85.1530**

3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.1400e-003	0.1060	0.0324	2.1000e-004	5.0500e-003	7.6000e-004	5.8100e-003	1.4600e-003	7.2000e-004	2.1800e-003	0.0000	20.5710	20.5710	1.2900e-003	0.0000	20.6033
Worker	0.0234	0.0165	0.1778	4.3000e-004	0.0426	3.1000e-004	0.0429	0.0113	2.9000e-004	0.0116	0.0000	38.9128	38.9128	1.2100e-003	0.0000	38.9431
Total	**0.0276**	**0.1225**	**0.2102**	**6.4000e-004**	**0.0476**	**1.0700e-003**	**0.0487**	**0.0128**	**1.0100e-003**	**0.0138**	**0.0000**	**59.4839**	**59.4839**	**2.5000e-003**	**0.0000**	**59.5464**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0850	0.7588	0.6179	9.7000e-004		0.0464	0.0464		0.0437	0.0437	0.0000	84.6374	84.6374	0.0206	0.0000	85.1529
Total	**0.0850**	**0.7588**	**0.6179**	**9.7000e-004**		**0.0464**	**0.0464**		**0.0437**	**0.0437**	**0.0000**	**84.6374**	**84.6374**	**0.0206**	**0.0000**	**85.1529**

3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.1400e-003	0.1060	0.0324	2.1000e-004	5.0500e-003	7.6000e-004	5.8100e-003	1.4600e-003	7.2000e-004	2.1800e-003	0.0000	20.5710	20.5710	1.2900e-003	0.0000	20.6033
Worker	0.0234	0.0165	0.1778	4.3000e-004	0.0426	3.1000e-004	0.0429	0.0113	2.9000e-004	0.0116	0.0000	38.9128	38.9128	1.2100e-003	0.0000	38.9431
Total	**0.0276**	**0.1225**	**0.2102**	**6.4000e-004**	**0.0476**	**1.0700e-003**	**0.0487**	**0.0128**	**1.0100e-003**	**0.0138**	**0.0000**	**59.4839**	**59.4839**	**2.5000e-003**	**0.0000**	**59.5464**

3.6 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	0.2417	2.1872	1.9207	3.0700e-003		0.1273	0.1273		0.1197	0.1197	0.0000	264.0354	264.0354	0.0644	0.0000	265.6458
Total	**0.2417**	**2.1872**	**1.9207**	**3.0700e-003**		**0.1273**	**0.1273**		**0.1197**	**0.1197**	**0.0000**	**264.0354**	**264.0354**	**0.0644**	**0.0000**	**265.6458**

3.6 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0105	0.3068	0.0856	6.7000e-004	0.0160	1.5900e-003	0.0176	4.6200e-003	1.5200e-003	6.1400e-003	0.0000	64.7374	64.7374	3.8300e-003	0.0000	64.8333
Worker	0.0683	0.0463	0.5081	1.3200e-003	0.1348	9.7000e-004	0.1358	0.0359	8.9000e-004	0.0368	0.0000	119.4361	119.4361	3.3800e-003	0.0000	119.5205
Total	**0.0788**	**0.3532**	**0.5936**	**1.9900e-003**	**0.1508**	**2.5600e-003**	**0.1534**	**0.0405**	**2.4100e-003**	**0.0429**	**0.0000**	**184.1735**	**184.1735**	**7.2100e-003**	**0.0000**	**184.3538**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2417	2.1872	1.9207	3.0700e-003		0.1273	0.1273		0.1197	0.1197	0.0000	264.0351	264.0351	0.0644	0.0000	265.6455
Total	**0.2417**	**2.1872**	**1.9207**	**3.0700e-003**		**0.1273**	**0.1273**		**0.1197**	**0.1197**	**0.0000**	**264.0351**	**264.0351**	**0.0644**	**0.0000**	**265.6455**

3.6 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0105	0.3068	0.0856	6.7000e-004	0.0160	1.5900e-003	0.0176	4.6200e-003	1.5200e-003	6.1400e-003	0.0000	64.7374	64.7374	3.8300e-003	0.0000	64.8333
Worker	0.0683	0.0463	0.5081	1.3200e-003	0.1348	9.7000e-004	0.1358	0.0359	8.9000e-004	0.0368	0.0000	119.4361	119.4361	3.3800e-003	0.0000	119.5205
Total	**0.0788**	**0.3532**	**0.5936**	**1.9900e-003**	**0.1508**	**2.5600e-003**	**0.1534**	**0.0405**	**2.4100e-003**	**0.0429**	**0.0000**	**184.1735**	**184.1735**	**7.2100e-003**	**0.0000**	**184.3538**

3.7 Architectural Coating - 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					
Archit. Coating	0.2897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2600e-003	0.0569	0.0571	9.0000e-005		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	7.9151	7.9151	6.7000e-004	0.0000	7.9318
Total	**0.2979**	**0.0569**	**0.0571**	**9.0000e-005**		**3.9900e-003**	**3.9900e-003**		**3.9900e-003**	**3.9900e-003**	**0.0000**	**7.9151**	**7.9151**	**6.7000e-004**	**0.0000**	**7.9318**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.0100e-003	2.8200e-003	0.0304	7.0000e-005	7.2900e-003	5.0000e-005	7.3400e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.6600	6.6600	2.1000e-004	0.0000	6.6652
Total	**4.0100e-003**	**2.8200e-003**	**0.0304**	**7.0000e-005**	**7.2900e-003**	**5.0000e-005**	**7.3400e-003**	**1.9400e-003**	**5.0000e-005**	**1.9900e-003**	**0.0000**	**6.6600**	**6.6600**	**2.1000e-004**	**0.0000**	**6.6652**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2600e-003	0.0569	0.0571	9.0000e-005		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003	0.0000	7.9151	7.9151	6.7000e-004	0.0000	7.9318
Total	**0.2979**	**0.0569**	**0.0571**	**9.0000e-005**		**3.9900e-003**	**3.9900e-003**		**3.9900e-003**	**3.9900e-003**	**0.0000**	**7.9151**	**7.9151**	**6.7000e-004**	**0.0000**	**7.9318**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.0100e-003	2.8200e-003	0.0304	7.0000e-005	7.2900e-003	5.0000e-005	7.3400e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.6600	6.6600	2.1000e-004	0.0000	6.6652
Total	**4.0100e-003**	**2.8200e-003**	**0.0304**	**7.0000e-005**	**7.2900e-003**	**5.0000e-005**	**7.3400e-003**	**1.9400e-003**	**5.0000e-005**	**1.9900e-003**	**0.0000**	**6.6600**	**6.6600**	**2.1000e-004**	**0.0000**	**6.6652**

3.7 Architectural Coating - 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					
Archit. Coating	1.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2004	0.2179	3.5000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	30.3837	30.3837	2.3500e-003	0.0000	30.4425
Total	**1.1408**	**0.2004**	**0.2179**	**3.5000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**30.3837**	**30.3837**	**2.3500e-003**	**0.0000**	**30.4425**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0142	9.6100e-003	0.1054	2.7000e-004	0.0280	2.0000e-004	0.0282	7.4400e-003	1.9000e-004	7.6200e-003	0.0000	24.7800	24.7800	7.0000e-004	0.0000	24.7975
Total	**0.0142**	**9.6100e-003**	**0.1054**	**2.7000e-004**	**0.0280**	**2.0000e-004**	**0.0282**	**7.4400e-003**	**1.9000e-004**	**7.6200e-003**	**0.0000**	**24.7800**	**24.7800**	**7.0000e-004**	**0.0000**	**24.7975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2004	0.2179	3.5000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	30.3837	30.3837	2.3500e-003	0.0000	30.4425
Total	**1.1408**	**0.2004**	**0.2179**	**3.5000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**30.3837**	**30.3837**	**2.3500e-003**	**0.0000**	**30.4425**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0142	9.6100e-003	0.1054	2.7000e-004	0.0280	2.0000e-004	0.0282	7.4400e-003	1.9000e-004	7.6200e-003	0.0000	24.7800	24.7800	7.0000e-004	0.0000	24.7975
Total	**0.0142**	**9.6100e-003**	**0.1054**	**2.7000e-004**	**0.0280**	**2.0000e-004**	**0.0282**	**7.4400e-003**	**1.9000e-004**	**7.6200e-003**	**0.0000**	**24.7800**	**24.7800**	**7.0000e-004**	**0.0000**	**24.7975**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9073	3.7679	10.0515	0.0295	2.4672	0.0269	2.4941	0.6616	0.0252	0.6868	0.0000	2,713.9248	2,713.9248	0.1368	0.0000	2,717.3455
Unmitigated	0.9593	4.1354	11.3674	0.0345	2.9117	0.0310	2.9427	0.7808	0.0290	0.8098	0.0000	3,169.1790	3,169.1790	0.1556	0.0000	3,173.0689

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,041.92	3,041.92	3041.92	7,805,898	6,614,459
Total	3,041.92	3,041.92	3,041.92	7,805,898	6,614,459

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 Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

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	192.9698	192.9698	0.0132	2.7400e-003	194.1173
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	192.9698	192.9698	0.0132	2.7400e-003	194.1173
NaturalGas Mitigated	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.6220	144.6220	2.7700e-003	2.6500e-003	145.4814
NaturalGas Unmitigated	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.6220	144.6220	2.7700e-003	2.6500e-003	145.4814

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 Low Rise	2.71011e+006	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.6220	144.6220	2.7700e-003	2.6500e-003	145.4814
Total		**0.0146**	**0.1249**	**0.0531**	**8.0000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.6220**	**144.6220**	**2.7700e-003**	**2.6500e-003**	**145.4814**

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					
Apartments Low Rise	2.71011e+006	0.0146	0.1249	0.0531	8.0000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.6220	144.6220	2.7700e-003	2.6500e-003	145.4814
Total		**0.0146**	**0.1249**	**0.0531**	**8.0000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.6220**	**144.6220**	**2.7700e-003**	**2.6500e-003**	**145.4814**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.00671e+006	192.9698	0.0132	2.7400e-003	194.1173
Total		**192.9698**	**0.0132**	**2.7400e-003**	**194.1173**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.00671e+006	192.9698	0.0132	2.7400e-003	194.1173
Total		**192.9698**	**0.0132**	**2.7400e-003**	**194.1173**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0851	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648
Unmitigated	1.0851	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648

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	0.1402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8748					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	0.0701	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648
Total	**1.0851**	**0.0267**	**2.3151**	**1.2000e-004**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**3.7734**	**3.7734**	**3.6600e-003**	**0.0000**	**3.8648**

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	0.1402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8748					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	0.0701	0.0267	2.3151	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7734	3.7734	3.6600e-003	0.0000	3.8648
Total	**1.0851**	**0.0267**	**2.3151**	**1.2000e-004**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**3.7734**	**3.7734**	**3.6600e-003**	**0.0000**	**3.8648**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	25.2753	0.0192	0.0115	29.1855
Unmitigated	25.2753	0.0192	0.0115	29.1855

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	14.5945 / 9.20088	25.2753	0.0192	0.0115	29.1855
Total		**25.2753**	**0.0192**	**0.0115**	**29.1855**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	14.5945 / 9.20088	25.2753	0.0192	0.0115	29.1855
Total		**25.2753**	**0.0192**	**0.0115**	**29.1855**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.9162	1.2361	0.0000	51.8190
Unmitigated	20.9162	1.2361	0.0000	51.8190

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	103.04	20.9162	1.2361	0.0000	51.8190
Total		**20.9162**	**1.2361**	**0.0000**	**51.8190**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	103.04	20.9162	1.2361	0.0000	51.8190
Total		**20.9162**	**1.2361**	**0.0000**	**51.8190**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Redding Avenue Project

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	224.00	Dwelling Unit	13.25	224,000.00	598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	422.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Demolition - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per DKS Associates trip generation estimates

Mobile Land Use Mitigation -

Area Mitigation -

Trips and VMT - Per applicant provided haul length information

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblGrading	AcresOfGrading	75.00	13.25
tblGrading	MaterialExported	0.00	514.00
tblGrading	MaterialImported	0.00	17,514.00
tblLandUse	LotAcreage	14.00	13.25
tblProjectCharacteristics	CO2IntensityFactor	590.31	422.59
tblTripsAndVMT	HaulingTripLength	20.00	21.05
tblVehicleTrips	ST_TR	7.16	13.58
tblVehicleTrips	SU_TR	6.07	13.58
tblVehicleTrips	WD_TR	6.59	13.58

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					
2019	12.9897	77.8573	39.8598	0.1266	18.2032	2.4852	20.5945	9.9670	2.2901	12.1670	0.0000	13,045.9225	13,045.9225	2.3348	0.0000	13,104.2915
2020	12.6289	23.9468	25.6897	0.0513	1.6126	1.2519	2.8645	0.4310	1.1838	1.6148	0.0000	4,998.7641	4,998.7641	0.7244	0.0000	5,016.8736
Maximum	**12.9897**	**77.8573**	**39.8598**	**0.1266**	**18.2032**	**2.4852**	**20.5945**	**9.9670**	**2.2901**	**12.1670**	**0.0000**	**13,045.9225**	**13,045.9225**	**2.3348**	**0.0000**	**13,104.2915**

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					
2019	12.9897	77.8573	39.8598	0.1266	18.2032	2.4852	20.5945	9.9670	2.2901	12.1670	0.0000	13,045.9225	13,045.9225	2.3348	0.0000	13,104.2915
2020	12.6289	23.9468	25.6897	0.0513	1.6126	1.2519	2.8645	0.4310	1.1838	1.6148	0.0000	4,998.7641	4,998.7641	0.7244	0.0000	5,016.8736
Maximum	**12.9897**	**77.8573**	**39.8598**	**0.1266**	**18.2032**	**2.4852**	**20.5945**	**9.9670**	**2.2901**	**12.1670**	**0.0000**	**13,045.9225**	**13,045.9225**	**2.3348**	**0.0000**	**13,104.2915**

	ROG	NOx	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**

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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Energy	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Mobile	6.6337	21.7729	70.2158	0.2053	16.5613	0.1696	16.7309	4.4281	0.1588	4.5869		20,769.3150	20,769.3150	0.9703		20,793.5732
Total	**12.8365**	**22.6709**	**89.0275**	**0.2106**	**16.5613**	**0.3270**	**16.8883**	**4.4281**	**0.3162**	**4.7443**	**0.0000**	**21,676.1163**	**21,676.1163**	**1.0193**	**0.0160**	**21,706.3717**

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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Energy	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Mobile	6.3333	19.9050	61.4206	0.1757	14.0335	0.1470	14.1804	3.7522	0.1376	3.8898		17,777.8163	17,777.8163	0.8494		17,799.0512
Total	**12.5361**	**20.8030**	**80.2322**	**0.1811**	**14.0335**	**0.3044**	**14.3378**	**3.7522**	**0.2950**	**4.0472**	**0.0000**	**18,684.6176**	**18,684.6176**	**0.8984**	**0.0160**	**18,711.8496**

	ROG	NOx	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	**2.34**	**8.24**	**9.88**	**14.04**	**15.26**	**6.93**	**15.10**	**15.26**	**6.72**	**14.69**	**0.00**	**13.80**	**13.80**	**11.86**	**0.00**	**13.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/3/2019	6/28/2019	5	20	
2	Site Preparation	Site Preparation	6/29/2019	7/12/2019	5	10	
3	Grading	Grading	7/13/2019	8/23/2019	5	30	
4	Paving	Paving	8/26/2019	9/20/2019	5	20	
5	Building Construction	Building Construction	9/23/2019	11/13/2020	5	300	
6	Architectural Coating	Architectural Coating	10/7/2019	11/27/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.25

Acres of Paving: 0

Residential Indoor: 453,600; Residential Outdoor: 151,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
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
Demolition	6	15.00	0.00	525.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,254.00	10.00	6.50	21.05	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	161.00	24.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					5.9197	0.0000	5.9197	0.8963	0.0000	0.8963			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**5.9197**	**1.7949**	**7.7146**	**0.8963**	**1.6697**	**2.5660**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2288	7.8659	1.9367	0.0210	0.4568	0.0338	0.4906	0.1250	0.0324	0.1574		2,251.4806	2,251.4806	0.1306		2,254.7461
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	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.2991**	**7.9045**	**2.4783**	**0.0223**	**0.5709**	**0.0347**	**0.6056**	**0.1553**	**0.0331**	**0.1884**		**2,374.2769**	**2,374.2769**	**0.1345**		**2,377.6390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					5.9197	0.0000	5.9197	0.8963	0.0000	0.8963			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**5.9197**	**1.7949**	**7.7146**	**0.8963**	**1.6697**	**2.5660**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2288	7.8659	1.9367	0.0210	0.4568	0.0338	0.4906	0.1250	0.0324	0.1574		2,251.4806	2,251.4806	0.1306		2,254.7461
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	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.2991**	**7.9045**	**2.4783**	**0.0223**	**0.5709**	**0.0347**	**0.6056**	**0.1553**	**0.0331**	**0.1884**		**2,374.2769**	**2,374.2769**	**0.1345**		**2,377.6390**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0843	0.0463	0.6499	1.4800e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		147.3555	147.3555	4.6400e-003		147.4714
Total	**0.0843**	**0.0463**	**0.6499**	**1.4800e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**147.3555**	**147.3555**	**4.6400e-003**		**147.4714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0843	0.0463	0.6499	1.4800e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		147.3555	147.3555	4.6400e-003		147.4714
Total	**0.0843**	**0.0463**	**0.6499**	**1.4800e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**147.3555**	**147.3555**	**4.6400e-003**		**147.4714**

3.4 Grading - 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					
Fugitive Dust					6.6148	0.0000	6.6148	3.3796	0.0000	3.3796			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.6148**	**2.3827**	**8.9974**	**3.3796**	**2.1920**	**5.5717**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6806	23.2857	5.7609	0.0630	1.3759	0.1015	1.4774	0.3766	0.0971	0.4737		6,742.1747	6,742.1747	0.3870		6,751.8490
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	0.0937	0.0515	0.7221	1.6500e-003	0.1521	1.0800e-003	0.1532	0.0404	1.0000e-003	0.0414		163.7283	163.7283	5.1500e-003		163.8572
Total	**0.7743**	**23.3372**	**6.4830**	**0.0646**	**1.5281**	**0.1026**	**1.6306**	**0.4170**	**0.0981**	**0.5151**		**6,905.9030**	**6,905.9030**	**0.3921**		**6,915.7061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					6.6148	0.0000	6.6148	3.3796	0.0000	3.3796			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.6148**	**2.3827**	**8.9974**	**3.3796**	**2.1920**	**5.5717**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6806	23.2857	5.7609	0.0630	1.3759	0.1015	1.4774	0.3766	0.0971	0.4737		6,742.1747	6,742.1747	0.3870		6,751.8490
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	0.0937	0.0515	0.7221	1.6500e-003	0.1521	1.0800e-003	0.1532	0.0404	1.0000e-003	0.0414		163.7283	163.7283	5.1500e-003		163.8572
Total	**0.7743**	**23.3372**	**6.4830**	**0.0646**	**1.5281**	**0.1026**	**1.6306**	**0.4170**	**0.0981**	**0.5151**		**6,905.9030**	**6,905.9030**	**0.3921**		**6,915.7061**

3.5 Paving - 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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.0703**	**0.0386**	**0.5416**	**1.2300e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**122.7963**	**122.7963**	**3.8600e-003**		**122.8929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.0703**	**0.0386**	**0.5416**	**1.2300e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**122.7963**	**122.7963**	**3.8600e-003**		**122.8929**

3.6 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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1136	2.8747	0.8583	6.0200e-003	0.1445	0.0207	0.1652	0.0416	0.0198	0.0614		636.6022	636.6022	0.0383		637.5587
Worker	0.7544	0.4144	5.8131	0.0133	1.2247	8.7300e-003	1.2335	0.3249	8.0500e-003	0.3329		1,318.0132	1,318.0132	0.0415		1,319.0501
Total	**0.8680**	**3.2891**	**6.6714**	**0.0193**	**1.3692**	**0.0295**	**1.3986**	**0.3664**	**0.0279**	**0.3943**		**1,954.6154**	**1,954.6154**	**0.0797**		**1,956.6087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1136	2.8747	0.8583	6.0200e-003	0.1445	0.0207	0.1652	0.0416	0.0198	0.0614		636.6022	636.6022	0.0383		637.5587
Worker	0.7544	0.4144	5.8131	0.0133	1.2247	8.7300e-003	1.2335	0.3249	8.0500e-003	0.3329		1,318.0132	1,318.0132	0.0415		1,319.0501
Total	**0.8680**	**3.2891**	**6.6714**	**0.0193**	**1.3692**	**0.0295**	**1.3986**	**0.3664**	**0.0279**	**0.3943**		**1,954.6154**	**1,954.6154**	**0.0797**		**1,956.6087**

3.6 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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.6 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0905	2.6353	0.7083	5.9800e-003	0.1444	0.0137	0.1582	0.0416	0.0131	0.0547		632.7730	632.7730	0.0359		633.6694
Worker	0.6943	0.3684	5.2567	0.0128	1.2247	8.5100e-003	1.2332	0.3249	7.8500e-003	0.3327		1,277.5559	1,277.5559	0.0366		1,278.4709
Total	**0.7848**	**3.0037**	**5.9650**	**0.0188**	**1.3692**	**0.0223**	**1.3914**	**0.3664**	**0.0210**	**0.3874**		**1,910.3289**	**1,910.3289**	**0.0725**		**1,912.1403**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.6 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0905	2.6353	0.7083	5.9800e-003	0.1444	0.0137	0.1582	0.0416	0.0131	0.0547		632.7730	632.7730	0.0359		633.6694
Worker	0.6943	0.3684	5.2567	0.0128	1.2247	8.5100e-003	1.2332	0.3249	7.8500e-003	0.3327		1,277.5559	1,277.5559	0.0366		1,278.4709
Total	**0.7848**	**3.0037**	**5.9650**	**0.0188**	**1.3692**	**0.0223**	**1.3914**	**0.3664**	**0.0210**	**0.3874**		**1,910.3289**	**1,910.3289**	**0.0725**		**1,912.1403**

3.7 Architectural Coating - 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					
Archit. Coating	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**9.6106**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1500	0.0824	1.1554	2.6300e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662		261.9654	261.9654	8.2400e-003		262.1714
Total	**0.1500**	**0.0824**	**1.1554**	**2.6300e-003**	**0.2434**	**1.7300e-003**	**0.2452**	**0.0646**	**1.6000e-003**	**0.0662**		**261.9654**	**261.9654**	**8.2400e-003**		**262.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**9.6106**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1500	0.0824	1.1554	2.6300e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662		261.9654	261.9654	8.2400e-003		262.1714
Total	**0.1500**	**0.0824**	**1.1554**	**2.6300e-003**	**0.2434**	**1.7300e-003**	**0.2452**	**0.0646**	**1.6000e-003**	**0.0662**		**261.9654**	**261.9654**	**8.2400e-003**		**262.1714**

3.7 Architectural Coating - 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					
Archit. Coating	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**9.5863**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1380	0.0732	1.0448	2.5500e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		253.9242	253.9242	7.2700e-003		254.1060
Total	**0.1380**	**0.0732**	**1.0448**	**2.5500e-003**	**0.2434**	**1.6900e-003**	**0.2451**	**0.0646**	**1.5600e-003**	**0.0661**		**253.9242**	**253.9242**	**7.2700e-003**		**254.1060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**9.5863**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1380	0.0732	1.0448	2.5500e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		253.9242	253.9242	7.2700e-003		254.1060
Total	**0.1380**	**0.0732**	**1.0448**	**2.5500e-003**	**0.2434**	**1.6900e-003**	**0.2451**	**0.0646**	**1.5600e-003**	**0.0661**		**253.9242**	**253.9242**	**7.2700e-003**		**254.1060**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.3333	19.9050	61.4206	0.1757	14.0335	0.1470	14.1804	3.7522	0.1376	3.8898		17,777.8163	17,777.8163	0.8494		17,799.0512
Unmitigated	6.6337	21.7729	70.2158	0.2053	16.5613	0.1696	16.7309	4.4281	0.1588	4.5869		20,769.3150	20,769.3150	0.9703		20,793.5732

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,041.92	3,041.92	3041.92	7,805,898	6,614,459
Total	3,041.92	3,041.92	3,041.92	7,805,898	6,614,459

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 Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

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	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
NaturalGas Unmitigated	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166

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					
Apartments Low Rise	7424.97	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Total		**0.0801**	**0.6843**	**0.2912**	**4.3700e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**		**873.5256**	**873.5256**	**0.0167**	**0.0160**	**878.7166**

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					
Apartments Low Rise	7.42497	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Total		**0.0801**	**0.6843**	**0.2912**	**4.3700e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**		**873.5256**	**873.5256**	**0.0167**	**0.0160**	**878.7166**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Unmitigated	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819

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	0.7680					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7936					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	0.5611	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021		33.2757	33.2757	0.0323		34.0819
Total	**6.1228**	**0.2138**	**18.5204**	**9.8000e-004**		**0.1021**	**0.1021**		**0.1021**	**0.1021**	**0.0000**	**33.2757**	**33.2757**	**0.0323**	**0.0000**	**34.0819**

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	0.7680					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7936					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	0.5611	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021		33.2757	33.2757	0.0323		34.0819
Total	**6.1228**	**0.2138**	**18.5204**	**9.8000e-004**		**0.1021**	**0.1021**		**0.1021**	**0.1021**	**0.0000**	**33.2757**	**33.2757**	**0.0323**	**0.0000**	**34.0819**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Redding Avenue Project

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	224.00	Dwelling Unit	13.25	224,000.00	598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	422.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Demolition - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per DKS Associates trip generation estimates

Mobile Land Use Mitigation -

Area Mitigation -

Trips and VMT - Per applicant provided haul length information

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblGrading	AcresOfGrading	75.00	13.25
tblGrading	MaterialExported	0.00	514.00
tblGrading	MaterialImported	0.00	17,514.00
tblLandUse	LotAcreage	14.00	13.25
tblProjectCharacteristics	CO2IntensityFactor	590.31	422.59
tblTripsAndVMT	HaulingTripLength	20.00	21.05
tblVehicleTrips	ST_TR	7.16	13.58
tblVehicleTrips	SU_TR	6.07	13.58
tblVehicleTrips	WD_TR	6.59	13.58

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					
2019	12.9236	78.9021	40.1583	0.1255	18.2032	2.4883	20.5945	9.9670	2.2931	12.1670	0.0000	12,929.1592	12,929.1592	2.3523	0.0000	12,987.9669
2020	12.5673	24.1047	24.8903	0.0492	1.6126	1.2524	2.8650	0.4310	1.1843	1.6153	0.0000	4,796.0955	4,796.0955	0.7221	0.0000	4,814.1485
Maximum	**12.9236**	**78.9021**	**40.1583**	**0.1255**	**18.2032**	**2.4883**	**20.5945**	**9.9670**	**2.2931**	**12.1670**	**0.0000**	**12,929.1592**	**12,929.1592**	**2.3523**	**0.0000**	**12,987.9669**

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					
2019	12.9236	78.9021	40.1583	0.1255	18.2032	2.4883	20.5945	9.9670	2.2931	12.1670	0.0000	12,929.1592	12,929.1592	2.3523	0.0000	12,987.9669
2020	12.5673	24.1047	24.8903	0.0492	1.6126	1.2524	2.8650	0.4310	1.1843	1.6153	0.0000	4,796.0955	4,796.0955	0.7221	0.0000	4,814.1485
Maximum	**12.9236**	**78.9021**	**40.1583**	**0.1255**	**18.2032**	**2.4883**	**20.5945**	**9.9670**	**2.2931**	**12.1670**	**0.0000**	**12,929.1592**	**12,929.1592**	**2.3523**	**0.0000**	**12,987.9669**

	ROG	NOx	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**

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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Energy	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Mobile	5.0021	23.4014	64.7889	0.1852	16.5613	0.1720	16.7332	4.4281	0.1611	4.5891		18,758.0821	18,758.0821	0.9590		18,782.0561
Total	**11.2049**	**24.2994**	**83.6005**	**0.1905**	**16.5613**	**0.3294**	**16.8906**	**4.4281**	**0.3185**	**4.7465**	**0.0000**	**19,664.8834**	**19,664.8834**	**1.0080**	**0.0160**	**19,694.8545**

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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Energy	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Mobile	4.7156	21.2769	57.7413	0.1586	14.0335	0.1493	14.1828	3.7522	0.1398	3.8920		16,059.3716	16,059.3716	0.8465		16,080.5340
Total	**10.9184**	**22.1749**	**76.5529**	**0.1639**	**14.0335**	**0.3067**	**14.3402**	**3.7522**	**0.2972**	**4.0494**	**0.0000**	**16,966.1729**	**16,966.1729**	**0.8955**	**0.0160**	**16,993.3324**

	ROG	NOx	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	**2.56**	**8.74**	**8.43**	**13.98**	**15.26**	**6.88**	**15.10**	**15.26**	**6.67**	**14.69**	**0.00**	**13.72**	**13.72**	**11.16**	**0.00**	**13.72**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/3/2019	6/28/2019	5	20	
2	Site Preparation	Site Preparation	6/29/2019	7/12/2019	5	10	
3	Grading	Grading	7/13/2019	8/23/2019	5	30	
4	Paving	Paving	8/26/2019	9/20/2019	5	20	
5	Building Construction	Building Construction	9/23/2019	11/13/2020	5	300	
6	Architectural Coating	Architectural Coating	10/7/2019	11/27/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.25

Acres of Paving: 0

Residential Indoor: 453,600; Residential Outdoor: 151,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Redding Avenue Project - Sacramento Metropolitan AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	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
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
Demolition	6	15.00	0.00	525.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,254.00	10.00	6.50	21.05	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	161.00	24.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					5.9197	0.0000	5.9197	0.8963	0.0000	0.8963			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**5.9197**	**1.7949**	**7.7146**	**0.8963**	**1.6697**	**2.5660**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2371	8.2032	2.0772	0.0207	0.4568	0.0349	0.4917	0.1250	0.0334	0.1584		2,217.6485	2,217.6485	0.1370		2,221.0728
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	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.3018**	**8.2509**	**2.5432**	**0.0218**	**0.5709**	**0.0357**	**0.6066**	**0.1553**	**0.0342**	**0.1894**		**2,325.4986**	**2,325.4986**	**0.1404**		**2,329.0084**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					5.9197	0.0000	5.9197	0.8963	0.0000	0.8963			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**5.9197**	**1.7949**	**7.7146**	**0.8963**	**1.6697**	**2.5660**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2371	8.2032	2.0772	0.0207	0.4568	0.0349	0.4917	0.1250	0.0334	0.1584		2,217.6485	2,217.6485	0.1370		2,221.0728
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	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.3018**	**8.2509**	**2.5432**	**0.0218**	**0.5709**	**0.0357**	**0.6066**	**0.1553**	**0.0342**	**0.1894**		**2,325.4986**	**2,325.4986**	**0.1404**		**2,329.0084**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0776	0.0573	0.5591	1.3000e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		129.4200	129.4200	4.1100e-003		129.5227
Total	**0.0776**	**0.0573**	**0.5591**	**1.3000e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**129.4200**	**129.4200**	**4.1100e-003**		**129.5227**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0776	0.0573	0.5591	1.3000e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		129.4200	129.4200	4.1100e-003		129.5227
Total	**0.0776**	**0.0573**	**0.5591**	**1.3000e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**129.4200**	**129.4200**	**4.1100e-003**		**129.5227**

3.4 Grading - 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					
Fugitive Dust					6.6148	0.0000	6.6148	3.3796	0.0000	3.3796			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.6148**	**2.3827**	**8.9974**	**3.3796**	**2.1920**	**5.5717**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7042	24.3182	6.1603	0.0621	1.3759	0.1046	1.4805	0.3766	0.1000	0.4766		6,645.3397	6,645.3397	0.4051		6,655.4674
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	0.0863	0.0637	0.6213	1.4500e-003	0.1521	1.0800e-003	0.1532	0.0404	1.0000e-003	0.0414		143.8000	143.8000	4.5600e-003		143.9141
Total	**0.7905**	**24.3819**	**6.7815**	**0.0635**	**1.5281**	**0.1057**	**1.6337**	**0.4170**	**0.1010**	**0.5180**		**6,789.1397**	**6,789.1397**	**0.4097**		**6,799.3815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					6.6148	0.0000	6.6148	3.3796	0.0000	3.3796			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.6148**	**2.3827**	**8.9974**	**3.3796**	**2.1920**	**5.5717**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7042	24.3182	6.1603	0.0621	1.3759	0.1046	1.4805	0.3766	0.1000	0.4766		6,645.3397	6,645.3397	0.4051		6,655.4674
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	0.0863	0.0637	0.6213	1.4500e-003	0.1521	1.0800e-003	0.1532	0.0404	1.0000e-003	0.0414		143.8000	143.8000	4.5600e-003		143.9141
Total	**0.7905**	**24.3819**	**6.7815**	**0.0635**	**1.5281**	**0.1057**	**1.6337**	**0.4170**	**0.1010**	**0.5180**		**6,789.1397**	**6,789.1397**	**0.4097**		**6,799.3815**

3.5 Paving - 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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.0647**	**0.0477**	**0.4660**	**1.0800e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**107.8500**	**107.8500**	**3.4200e-003**		**107.9356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.0647**	**0.0477**	**0.4660**	**1.0800e-003**	**0.1141**	**8.1000e-004**	**0.1149**	**0.0303**	**7.5000e-004**	**0.0310**		**107.8500**	**107.8500**	**3.4200e-003**		**107.9356**

3.6 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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1194	2.9449	0.9764	5.8700e-003	0.1445	0.0213	0.1658	0.0416	0.0204	0.0620		620.6059	620.6059	0.0415		621.6423
Worker	0.6944	0.5124	5.0012	0.0116	1.2247	8.7300e-003	1.2335	0.3249	8.0500e-003	0.3329		1,157.5902	1,157.5902	0.0367		1,158.5088
Total	**0.8138**	**3.4573**	**5.9776**	**0.0175**	**1.3692**	**0.0300**	**1.3992**	**0.3664**	**0.0284**	**0.3949**		**1,778.1961**	**1,778.1961**	**0.0782**		**1,780.1511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1194	2.9449	0.9764	5.8700e-003	0.1445	0.0213	0.1658	0.0416	0.0204	0.0620		620.6059	620.6059	0.0415		621.6423
Worker	0.6944	0.5124	5.0012	0.0116	1.2247	8.7300e-003	1.2335	0.3249	8.0500e-003	0.3329		1,157.5902	1,157.5902	0.0367		1,158.5088
Total	**0.8138**	**3.4573**	**5.9776**	**0.0175**	**1.3692**	**0.0300**	**1.3992**	**0.3664**	**0.0284**	**0.3949**		**1,778.1961**	**1,778.1961**	**0.0782**		**1,780.1511**

3.6 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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.6 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0953	2.6891	0.8148	5.8300e-003	0.1444	0.0142	0.1586	0.0416	0.0136	0.0552		616.5895	616.5895	0.0388		617.5596
Worker	0.6388	0.4552	4.5010	0.0113	1.2247	8.5100e-003	1.2332	0.3249	7.8500e-003	0.3327		1,121.9905	1,121.9905	0.0323		1,122.7970
Total	**0.7341**	**3.1443**	**5.3158**	**0.0171**	**1.3692**	**0.0227**	**1.3919**	**0.3664**	**0.0214**	**0.3879**		**1,738.5800**	**1,738.5800**	**0.0711**		**1,740.3566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.6 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0953	2.6891	0.8148	5.8300e-003	0.1444	0.0142	0.1586	0.0416	0.0136	0.0552		616.5895	616.5895	0.0388		617.5596
Worker	0.6388	0.4552	4.5010	0.0113	1.2247	8.5100e-003	1.2332	0.3249	7.8500e-003	0.3327		1,121.9905	1,121.9905	0.0323		1,122.7970
Total	**0.7341**	**3.1443**	**5.3158**	**0.0171**	**1.3692**	**0.0227**	**1.3919**	**0.3664**	**0.0214**	**0.3879**		**1,738.5800**	**1,738.5800**	**0.0711**		**1,740.3566**

3.7 Architectural Coating - 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					
Archit. Coating	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**9.6106**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662		230.0800	230.0800	7.3000e-003		230.2626
Total	**0.1380**	**0.1018**	**0.9940**	**2.3100e-003**	**0.2434**	**1.7300e-003**	**0.2452**	**0.0646**	**1.6000e-003**	**0.0662**		**230.0800**	**230.0800**	**7.3000e-003**		**230.2626**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**9.6106**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662		230.0800	230.0800	7.3000e-003		230.2626
Total	**0.1380**	**0.1018**	**0.9940**	**2.3100e-003**	**0.2434**	**1.7300e-003**	**0.2452**	**0.0646**	**1.6000e-003**	**0.0662**		**230.0800**	**230.0800**	**7.3000e-003**		**230.2626**

3.7 Architectural Coating - 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					
Archit. Coating	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**9.5863**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		223.0043	223.0043	6.4100e-003		223.1646
Total	**0.1270**	**0.0905**	**0.8946**	**2.2400e-003**	**0.2434**	**1.6900e-003**	**0.2451**	**0.0646**	**1.5600e-003**	**0.0661**		**223.0043**	**223.0043**	**6.4100e-003**		**223.1646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.3442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**9.5863**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		223.0043	223.0043	6.4100e-003		223.1646
Total	**0.1270**	**0.0905**	**0.8946**	**2.2400e-003**	**0.2434**	**1.6900e-003**	**0.2451**	**0.0646**	**1.5600e-003**	**0.0661**		**223.0043**	**223.0043**	**6.4100e-003**		**223.1646**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.7156	21.2769	57.7413	0.1586	14.0335	0.1493	14.1828	3.7522	0.1398	3.8920		16,059.3716	16,059.3716	0.8465		16,080.5340
Unmitigated	5.0021	23.4014	64.7889	0.1852	16.5613	0.1720	16.7332	4.4281	0.1611	4.5891		18,758.0821	18,758.0821	0.9590		18,782.0561

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,041.92	3,041.92	3041.92	7,805,898	6,614,459
Total	3,041.92	3,041.92	3,041.92	7,805,898	6,614,459

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 Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

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	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
NaturalGas Unmitigated	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166

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					
Apartments Low Rise	7424.97	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Total		**0.0801**	**0.6843**	**0.2912**	**4.3700e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**		**873.5256**	**873.5256**	**0.0167**	**0.0160**	**878.7166**

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					
Apartments Low Rise	7.42497	0.0801	0.6843	0.2912	4.3700e-003		0.0553	0.0553		0.0553	0.0553		873.5256	873.5256	0.0167	0.0160	878.7166
Total		**0.0801**	**0.6843**	**0.2912**	**4.3700e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**		**873.5256**	**873.5256**	**0.0167**	**0.0160**	**878.7166**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819
Unmitigated	6.1228	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021	0.0000	33.2757	33.2757	0.0323	0.0000	34.0819

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	0.7680					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7936					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	0.5611	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021		33.2757	33.2757	0.0323		34.0819
Total	**6.1228**	**0.2138**	**18.5204**	**9.8000e-004**		**0.1021**	**0.1021**		**0.1021**	**0.1021**	**0.0000**	**33.2757**	**33.2757**	**0.0323**	**0.0000**	**34.0819**

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	0.7680					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7936					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	0.5611	0.2138	18.5204	9.8000e-004		0.1021	0.1021		0.1021	0.1021		33.2757	33.2757	0.0323		34.0819
Total	**6.1228**	**0.2138**	**18.5204**	**9.8000e-004**		**0.1021**	**0.1021**		**0.1021**	**0.1021**	**0.0000**	**33.2757**	**33.2757**	**0.0323**	**0.0000**	**34.0819**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Redding Avenue Project

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.70800E-002	2.57270E-001	2.75020E-001	4.50000E-004	1.71900E-002	1.71900E-002	0.00000E+000	3.82988E+001	3.82988E+001	3.02000E-003	0.00000E+000	3.83743E+001
Concrete/Industrial Saws	4.62000E-003	3.58900E-002	3.70200E-002	6.00000E-005	2.29000E-003	2.29000E-003	0.00000E+000	5.37657E+000	5.37657E+000	3.80000E-004	0.00000E+000	5.38603E+000
Cranes	6.11000E-002	7.27030E-001	2.83240E-001	7.60000E-004	3.01900E-002	2.77800E-002	0.00000E+000	6.68889E+001	6.68889E+001	2.15200E-002	0.00000E+000	6.74269E+001
Excavators	1.56400E-002	1.60910E-001	1.95790E-001	3.10000E-004	7.76000E-003	7.14000E-003	0.00000E+000	2.78211E+001	2.78211E+001	8.80000E-003	0.00000E+000	2.80412E+001
Forklifts	6.65300E-002	5.98000E-001	5.32620E-001	6.90000E-004	4.50100E-002	4.14100E-002	0.00000E+000	6.07534E+001	6.07534E+001	1.95400E-002	0.00000E+000	6.12420E+001
Generator Sets	6.14800E-002	5.32570E-001	5.56460E-001	9.90000E-004	3.05000E-002	3.05000E-002	0.00000E+000	8.47811E+001	8.47811E+001	4.92000E-003	0.00000E+000	8.49041E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94884E+000	8.94884E+000	2.83000E-003	0.00000E+000	9.01962E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44586E+000	8.44586E+000	2.67000E-003	0.00000E+000	8.51266E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31770E+000	7.31770E+000	2.32000E-003	0.00000E+000	7.37558E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74889E+000
Rubber Tired Dozers	5.67300E-002	6.03720E-001	2.14200E-001	4.30000E-004	2.94400E-002	2.70800E-002	0.00000E+000	3.83480E+001	3.83480E+001	1.21300E-002	0.00000E+000	3.86513E+001
Scrapers	3.19600E-002	3.87420E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08183E+001	4.08183E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	9.63300E-002	9.67710E-001	1.01494E+000	1.38000E-003	6.23800E-002	5.73900E-002	0.00000E+000	1.21966E+002	1.21966E+002	3.91600E-002	0.00000E+000	1.22945E+002
Welders	5.28600E-002	2.37600E-001	2.66500E-001	3.80000E-004	1.34900E-002	1.34900E-002	0.00000E+000	2.82331E+001	2.82331E+001	4.30000E-003	0.00000E+000	2.83407E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.70800E-002	2.57270E-001	2.75020E-001	4.50000E-004	1.71900E-002	1.71900E-002	0.00000E+000	3.82988E+001	3.82988E+001	3.02000E-003	0.00000E+000	3.83743E+001
Concrete/Industrial Saws	4.62000E-003	3.58900E-002	3.70200E-002	6.00000E-005	2.29000E-003	2.29000E-003	0.00000E+000	5.37657E+000	5.37657E+000	3.80000E-004	0.00000E+000	5.38603E+000
Cranes	6.11000E-002	7.27020E-001	2.83240E-001	7.60000E-004	3.01900E-002	2.77800E-002	0.00000E+000	6.68888E+001	6.68888E+001	2.15200E-002	0.00000E+000	6.74268E+001
Excavators	1.56400E-002	1.60910E-001	1.95790E-001	3.10000E-004	7.76000E-003	7.14000E-003	0.00000E+000	2.78211E+001	2.78211E+001	8.80000E-003	0.00000E+000	2.80411E+001
Forklifts	6.65300E-002	5.98000E-001	5.32620E-001	6.90000E-004	4.50100E-002	4.14100E-002	0.00000E+000	6.07533E+001	6.07533E+001	1.95400E-002	0.00000E+000	6.12419E+001
Generator Sets	6.14800E-002	5.32560E-001	5.56460E-001	9.90000E-004	3.05000E-002	3.05000E-002	0.00000E+000	8.47810E+001	8.47810E+001	4.92000E-003	0.00000E+000	8.49039E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94883E+000	8.94883E+000	2.83000E-003	0.00000E+000	9.01961E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44585E+000	8.44585E+000	2.67000E-003	0.00000E+000	8.51265E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31769E+000	7.31769E+000	2.32000E-003	0.00000E+000	7.37557E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74888E+000
Rubber Tired Dozers	5.67300E-002	6.03720E-001	2.14200E-001	4.30000E-004	2.94400E-002	2.70800E-002	0.00000E+000	3.83480E+001	3.83480E+001	1.21300E-002	0.00000E+000	3.86513E+001
Scrapers	3.19600E-002	3.87410E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08182E+001	4.08182E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	9.63300E-002	9.67710E-001	1.01494E+000	1.38000E-003	6.23800E-002	5.73900E-002	0.00000E+000	1.21966E+002	1.21966E+002	3.91600E-002	0.00000E+000	1.22945E+002
Welders	5.28600E-002	2.37600E-001	2.66500E-001	3.80000E-004	1.34900E-002	1.34900E-002	0.00000E+000	2.82331E+001	2.82331E+001	4.30000E-003	0.00000E+000	2.83407E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.30552E-006	1.30552E-006	0.00000E+000	0.00000E+000	1.30295E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	1.37546E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19601E-006	1.19601E-006	0.00000E+000	0.00000E+000	1.18647E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07832E-006	1.07832E-006	0.00000E+000	0.00000E+000	1.42647E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15220E-006	1.15220E-006	0.00000E+000	0.00000E+000	1.14301E-006
Generator Sets	0.00000E+000	1.87769E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17951E-006	1.17951E-006	0.00000E+000	0.00000E+000	1.29558E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11746E-006	1.11746E-006	0.00000E+000	0.00000E+000	1.10869E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18401E-006	1.18401E-006	0.00000E+000	0.00000E+000	1.17472E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.36655E-006	1.36655E-006	0.00000E+000	0.00000E+000	1.35583E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10576E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.04308E-006	1.04308E-006	0.00000E+000	0.00000E+000	1.03489E-006
Scrapers	0.00000E+000	2.58118E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.79954E-007	9.79954E-007	0.00000E+000	0.00000E+000	1.21533E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22985E-006	1.22985E-006	0.00000E+000	0.00000E+000	1.22005E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.06258E-006	1.06258E-006	0.00000E+000	0.00000E+000	1.05855E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.04	0.01	0.04	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.20	0.05	0.20	0.05	0.00	0.00
Demolition	Fugitive Dust	0.06	0.01	0.06	0.01	0.00	0.00
Demolition	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Fugitive Dust	0.10	0.05	0.10	0.05	0.00	0.00
Grading	Roads	0.02	0.01	0.02	0.01	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.09	0.05	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	5.41	8.89	11.58	14.38	13.29	13.29	0.00	14.37	14.37	12.06	0.00	14.36
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Urban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.14	0.33		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.14			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.15			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	7.70			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	15.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.15			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
Yes	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

APPENDIX B

The Retreat at Sacramento (P18-063)
Initial Study/Mitigated Negative Declaration
Appendix B
Revisions to Initial Study
Comments and Responses
February 20, 2019

The Mitigated Negative Declaration for the Retreat at Sacramento (P18-063) was circulated for public comment from January 8, 2019 to February 8, 2019. Written comments were received as follows:

Date	Commenter
1/8/2019	PG&E
1/10/2019	Regional San
1/14/2019	Caltrans
2/8/2019	Lozeau | Drury LLP

Each of the written comments is attached. Each of the comments addressed the project site and conditions as they relate to the particular areas of concern of the respective commenting agency, company, organization or individual. The comments are acknowledged by the City and have been considered as part of the project planning and its implementation.

None of the comments identified any new significant effects, increases in severity of an impact identified in the Mitigated Negative Declaration, or provide significant new information. Recirculation of the Mitigated Negative Declaration, therefore, is not required.

Revisions to the Initial Study/Mitigated Negative Declaration

The City of Sacramento Community Development Department, as lead agency, released the Retreat at Sacramento (P18-063) Initial Study/Mitigated Negative Declaration (IS/MND) for public review beginning on January 8, 2019 pursuant to CEQA Guidelines Section 15105. The IS/MND and supporting documents were made available at the City of Sacramento, Community Development Department, 300 Richards Blvd., 3rd Floor, Sacramento, California. According to CEQA Guidelines Sections 15073 and 15074, the lead agency must consider the comments received during consultation and review periods together with the negative declaration. However, unlike the process followed with an Environmental Impact Report, comments received on a negative declaration are not required to be attached to the negative declaration, nor must the lead agency make specific written responses to public agencies. Nonetheless, the lead agency has chosen to provide responses to the comments received during the public review process for the IS/MND, as well as revisions to the IS/MND where necessary. The revisions and responses to comments are provided herein as Attachments 1 and 2, respectively.

Attachments

Attachment 1: Revisions to the Initial Study/Mitigated Negative Declaration
Attachment 2: Responses to Comments

Attachment 1

The Retreat at Sacramento (P18-063)
Initial Study/Mitigated Negative Declaration

Revisions to the Initial Study/Mitigated Negative Declaration

February 20, 2019

This document presents, in ~~strike-through~~ and double-underline format, the revisions to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Retreat at Sacramento Project (proposed project). The revisions to the IS/MND do not affect the adequacy of the environmental analysis or conclusions in the IS/MND. Because the changes presented below would not result in any new significant impacts or an increase in impact significance from what was identified in the IS/MND, recirculation of the IS/MND is not required (CEQA Guidelines section 15073.5).

Based on the comments received on the IS/MND prepared for the proposed project (released for public review on January 8, 2018), as well as staff-initiated changes, the following revisions have been made to the IS/MND.

Page 2 of the IS/MND is hereby modified as follows to reflect a change in the project applicant name and contact information:

> Jason Doornbos
> ~~LCD Acquisitions, LLC.~~Retreat at Sacramento, LLC
> 315 Oconee Street
> Athens, GA 30601
> (706) 543-1910
> jdoornbos@landmarkproperties.com

The foregoing revision does not affect the adequacy of the IS/MND.

Page 23 of the IS/MND related to the soil export associated with the proposed project is hereby modified as follows:

- Prior to development of the project site, 115,364 square feet (sf) of existing on-site structures would be demolished;
- Approximately ~~17,~~514 cubic yards (CY) of soil export associated with off-haul of contaminated soils would be required; and
- Approximately 17,514 CY of soil import would be required, including 44 CY to replace off-hauled soils.

The foregoing revision is for clarification purposes only and does not affect the adequacy of the IS/MND.

Attachment 2

Responses to Comments

RESPONSES TO COMMENTS

This Responses to Comments document contains public and/or agency comments received during the public review period of the Retreat at Redding Project (proposed project) Initial Study/Mitigated Negative Declaration (IS/MND).

List of Commenters

The City of Sacramento received the following four comment letters during the open comment period on the IS/MND for the proposed project:

Letter 1 .....Plan Review Team Land Management, PG&E
Letter 2 .....Robb Armstrong, Regional San Development Services and Plan Check
Letter 3 .....Uzma Rehman, Caltrans
Letter 4 .....Brian Flynn, Lozeau | Drury LLP

Response to Comments

The Response to Comments below include responses to the comment letters submitted regarding the proposed project. The letters are numbered and bracketed with assigned comment numbers. The bracketed comment letters are followed by numbered responses corresponding to each bracketed comment. It should be noted that where revisions to the IS/ND text are required in response to a comment, new text is <u>double underlined</u> and deleted text is ~~struck through~~.

Letter 1

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

6111 Bollinger Canyon Road 3370A
San Ramon, CA 94583

January 8, 2019

Ron Bess
City of Sacramento
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Ref: Gas and Electric Transmission and Distribution

Dear Mr. Bess,

Thank you for submitting P18-063 plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.

1-1

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

Letter 1 Cont'd

Pacific Gas and Electric Company

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: http://usanorth811.org/wp-content/uploads/2017/05/CA-LAW-English.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

1-1 Cont'd

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Letter 1 Cont'd

Pacific Gas and Electric Company

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

1-1 Cont'd

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line 'kicker blocks', storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4') in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an "Impressed Current" cathodic protection system. Any proposed facilities, such as metal conduit, pipes,

Letter 1 Cont'd

Pacific Gas and Electric Company

service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

1-1 Cont'd

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Letter 1 Cont'd

Pacific Gas and Electric Company

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING.**"

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

1-1 Cont'd

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for

Letter 1 Cont'd

Pacific Gas and Electric Company

proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

1-1 Cont'd

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

Letter 1: Plan Review Team Land Management, PG&E. January 8, 2019

Response to Comment 1-1

The comment provides a summary of PG&E's standard requirements related to gas and electric facilities and does not address the adequacy of the IS/MND.

Letter 2

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

Board of Directors
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District Engineer

Ruben Robles
Director of Operations

Christoph Dobson
Director of Policy & Planning

David O'Toole
Director of Internal Services

Joseph Maestretti
Chief Financial Officer

Nicole Coleman
Public Affairs Manager

www.regionalsan.com

Printed on Recycled Paper

January 10, 2019

Mr. Ron Bess
City of Sacramento – Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento CA 95811

Subject: Notice of Availability/Intent to Approve the Draft Mitigated Negative Declaration for the Retreat at Sacramento Project (P18-063)

Dear Mr. Bess,

Sacramento Regional County Sanitation District (Regional San) has the following comments pertaining to the Notice of Preparation of an Environmental Impact Report for the Tower 301 project.

The proposed project is located at 2601 Redding Avenue and consists of a 224-unit, 736-bed student housing facility on a 13.3-acre site.

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 may need to be completed to assess the impacts of any proposed 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 site should be included in this environmental impact report.

2-1

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 treatment facilities that provides service to new customers. The Regional San ordinance is located on the Regional San website at: www.regionalsan.com.

Local sanitary sewer service for the proposed project site will be provided by the City of Sacramento's (City) local sewer collection system. Ultimate conveyance of wastewater from the City collection system 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 to ensure that wet and dry weather capacity limitations within Sump 2/2A and the City Interceptor are not exceeded.

Letter 2 Cont'd

Mr. Ron Bess
January 10, 2019
Page 2

On March 13, 2013, Regional San approved the Wastewater Operating Agreement between Regional San and the City. The following limitations are outlined in the subject 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*

2-1 Cont'd

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

Letter 2 Cont'd

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).

2-1 Cont'd

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 this letter, please feel free to contact me at (916) 876-6104 or by email: armstrongro@sacsewer.com.

Sincerely,

Robb Armstrong

Robb Armstrong
Regional San Development Services & Plan Check

Letter 2: Robb Armstrong, Regional San Development Services & Plan Check. January 10, 2019.

Response to Comment 2-1

The comment provides background information and does not address the adequacy of the IS/MND.

Letter 3

Ron Bess

From: Rehman, Uzma@DOT <Uzma.Rehman@dot.ca.gov>
Sent: Monday, January 14, 2019 2:18 PM
To: Ron Bess
Cc: Fong, Alexander Y@DOT
Subject: Retreat at Sacramento

Hi Ron,
Thank you for submitting Retreat at Sacramento (MND) project for review. At this time Caltrans does not have any comments. **3-1**

Please let us know if anything changes.

Thanks,

Uzma Rehman
Transportation Planner
Caltrans, District 3
Planning, Local Assistance, and Sustainability
703 B Street | Marysville CA 95901
(530) 741-5173
Uzma.Rehman@dot.ca.gov

Caltrans

1

Letter 3: Uzma Rehman, Caltrans. January 14, 2019.

Response to Comment 3-1

The comment states that no comments are offered and therefore does not address the adequacy of the IS/MND.

Letter 4

LOZEAU DRURY LLP
T 510.749.9102
F 510.749.9103
1516 Oak Street, Suite 216
Alameda, Ca 94501
www.lozeaudrury.com
michael@lozeaudrury.com

February 8, 2019

Via E-Mail

Tom Buford, Principal Planner
Ron Bess, Assistant Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
tbuford@cityofsacramento.org
rbess@cityofsacramento.org

Re: The Retreat at Sacramento aka The Redding Avenue Project (P18-063)

Dear Mr. Buford and Mr. Bess:

4-1 I am writing on behalf of the Laborers International Union of North America, Local Union 185 and its members living in and around the City of Sacramento ("LIUNA") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") and the proposed Conditional Use Permit ("CUP") prepared for The Retreat at Sacramento ("Project") (Project File No.P18-063). The IS/MND also refers to the Project as The Redding Avenue Project. After reviewing the IS/MND, and with the assistance of expert reviews by wildlife biologist Dr. Shawn Smallwood, and environmental consulting firm SWAPE, it is clear that there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. The written expert comments of Dr. Smallwood and of SWAPE (attached hereto as Exhibit A and Exhibit B, respectively), as well as the comments below, identify substantial evidence of a fair argument that the Project may have significant environmental impacts. Accordingly, an environmental impact report ("EIR") is required to analyze these impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Community Development Department to decline to approve the IS/MND, and to prepare an EIR for the Project prior to any Project approvals.

I. PROJECT BACKGROUND

LCD Acquisitions, LLC proposes to construct a 224-unit multi-family residential development including a club house, maintenance building, and recreational spaces and amenities. The Project would include a total of 31 buildings ranging from 2- to 3-stories high. The Project intends to provide an opportunity for student housing for students attending

Letter 4 Cont'd

California State University Sacramento ("CSUS"). The Project would provide on-site parking for 525 cars. The Project would extend over a 12.25 acre site currently occupied by the Dorris Lumber & Moulding Company, including warehouse structures, office buildings, and storage facilities. Approximately 77 percent of the site is paved with concrete and asphalt. The project site is currently designated Urban Neighborhood Low Density under the City's 2035 General Plan and zoned Mixed Use/Transit Overlay (RMX-TO). The Project will be bounded by Route 50 to the north, the Union Pacific railroad tracks to the east, Redding Avenue to the west, and a yet-to-be-built new residential development to the south.

II. LEGAL STANDARD

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-320 (*CBE v. SCAQMD*) [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505.].) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ["PRC"] § 21068; *see also* 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc., supra*, 13 Cal.3d at 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109 (*CBE v. CRA*).)

4-1 Cont'd

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield (*2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens, supra*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs.§ 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. (PRC, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing

Letter 4 Cont'd

the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.) A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.)

4-1 Cont'd

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors, supra*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors, supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zischke, *Practice Under CEQA*, §6.29, pp. 273-274.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." (*Pocket Protectors, supra*, 124 Cal.App.4th at 928.)

III. DISCUSSION

A. The IS/MND Fails to Adequately Analyze and Mitigate the Potential Adverse Impacts of the Project on Wildlife.

Letter 4 Cont'd

The comment of Dr. Shawn Smallwood is attached as Exhibit A. Dr. Smallwood has identified several issues with the IS/MND for the Project. His concerns are summarized below.

1. The wildlife baseline relied upon by the IS/MND is woefully inadequate because the IS/MND underestimates the number of special-status species that may be impacted by the Project.

The IS/MND describes the Project site as within a developed area and therefore devoid of habitat for most special-status species (IS/MND, p. 30.) However, as Dr. Smallwood points out, "Multiple species of wildlife find ways to adapt to urban environments, including for foraging, nesting, cover, and as stop-over refuge during dispersal or migration." (Ex. A, pp. 1-2.) By looking at occurrence records and geographic range maps, Dr. Smallwood identified 43 special-status species and an additional 12 species of bats in the area around the Project site. (Ex. A, p. 2.) The occurrence of these species at or near the Project site warrants discussion and analysis in an EIR to ensure that any impacts are mitigated to a less than significant level.

4-2

Every CEQA document must start from a "baseline" assumption. The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*Communities for a Better Envt. v. So. Coast Air Qual. Mgmt. Dist.* (2010) 48 Cal. 4th 310, 321.) Section 15125(a) of the CEQA Guidelines (14 C.C.R., § 15125(a)) states in pertinent part that a lead agency's environmental review under CEQA:

> "…must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant."

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ("*Save Our Peninsula.*") By failing to assess the presence of wildlife at or flying through the site, the IS/MND fails to provide any baseline from which to analyze the Project's impacts on birds.

2. The IS/MND fails to address the potential adverse impact on bird species from window collisions.

4-3

The IS/MND makes no mention of the potential impacts to birds caused from collisions with the glass windows of the Project. Analyzing the potential impact on wildlife of window collisions is especially important because such collisions are "one of the greatest anthropogenic sources of bird mortality across North America." (Ex. A, p. 7.) As a preliminary matter, an EIR should be prepared to include "specific details of window placements, window extent, types of glass, and anticipated interior and exterior landscaping and lighting. (*Id.*)

Dr. Smallwood reviewed a number of studies in order to calculate the number of bird

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collisions per m^2 of glass windows per year. (Ex. A, p. 11.) According to his calculations, each m^2 of glass would result in 0.077 bird deaths per year. (*Id.*) Dr. Smallwood then looked at the building design for the Project and estimated that the Project would include approximately 3,526 m^2 of glass windows. (*Id.*) Based on the estimated 3,400 m^2 of glass windows and the 0.077 bird deaths per m^2 of glass windows, Dr. Smallwood estimates that the project could result in 272 bird deaths per year. (*Id.*)

4-3 Cont'd

In order to mitigate the impact of the window collisions on bird species, Dr. Smallwood has suggested several possible mitigation measures. For mitigation measures involving retrofitting the existing project, Dr. Smallwood suggests: (1) marking the windows (e.g. decals, film, fritted glass); (2) managing outdoor landscape to reduce reflection of vegetation; (3) managing indoor landscape; and (4) managing nocturnal lighting. (Ex. A, p. 15.) For mitigation measures involving the siting and design of the Project, Dr. Smallwood suggests: (1) deciding on the location of structures; (2) deciding on the façade and orientation of structures; (3) selecting types and sizes of windows; (4) minimizing transparency through two parallel façades; (5) minimizing views of interior plants; and (6) landscaping so as to increase distance between windows and vegetation. (Ex. A, p. 16.) Dr. Smallwood also suggests that the City also look to the guidelines developed by the American Bird Conservancy and the City of San Francisco to minimize injuries and fatalities to bird species. (*Id.* at p. 16-17.)

3. The IS/MND fails to address the potential adverse impact on wildlife from vehicle collisions due to increased traffic from the Project.

4-4

According to the IS/MND, the Project would generate 3,042 daily vehicle trips. (IS/MND, p. 75.) The increase in vehicle trips are likely to result in increased wildlife fatalities because vehicle collisions "crush and kill wildlife" and "the impacts have often been found to be significant at the population level." (Ex. A, p. 17.) In terms of avian mortality, it is estimated that vehicle collisions result in the death of 89 million to 340 million birds per year. (*Id.*) Because the impact of vehicle collisions on wildlife was not addressed at all in the IS/MND and Dr. Smallwood has provided substantial evidence of a fair argument that this impact from the Project's traffic may be significant, the City must analyze such impacts in an EIR.

Factors that affect the rate of vehicle collision with wildlife include: the type of roadway, human population density, temperature, extent of vegetation cover, and intersections with streams and riparian vegetation. (Ex. A, p. 17-18.) The City should formulate mitigation measures based on those factors in an EIR.

4. The IS/MND fails to address the potential adverse impact on bird species from artificial lighting from the Project.

4-5

Artificial lighting can cause substantial impacts on wildlife including displacement or altered activity patterns. (Ex. A, p. 18.) The City should analyze the effect of the Project's artificial lighting on wildlife and incorporate mitigation measures for lighting design in an EIR.

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5. The IS/MND fails to address the potential adverse impact on wildlife movement due to the Project.

4-6 Even though the Project is located in an urban setting, the City should have analyzed the impact of the project on wildlife movement. Wildlife uses open spaces and trees as stop-over habitat during migrations or dispersal from natal territories. (Ex. A, p. 18.) Any mature trees on the Project site likely provide stop-over and staging habitat for wildlife moving across Sacramento. (*Id.*) Urban and commercial sprawl has already eliminated natural surfaces from much of the landscape and the project would only further cut off wildlife from their movement patterns. (*Id.*) The City should prepare an EIR which analyzes the impact of the Project on wildlife movement and incorporates mitigation measures as needed.

6. The Project should include additional mitigation measures to lessen the potential adverse impacts of the Project on wildlife.

The IS/MND relies on preconstruction surveys and worker training to mitigate the potentially significant impacts of the Project on wildlife. (IS/MND, p. 33-36.) However, as Dr. Smallwood points out, preconstruction surveys on their own are not sufficient to mitigate the impact of the Project on wildlife. "Preconstruction surveys cannot prevent, minimize, or reduce the effect of habitat loss. Their sole purpose is to detect the readily detectable individuals for temporary buffering from construction or for salvage relocation just prior to destruction by the tractor blade." (Ex. A, p. 20.)

4-7 Preconstruction surveys should be used in conjunction with other mitigation measures to ensure that the impacts on the Project on wildlife are less than significant. In addition to preconstruction surveys, Dr. Smallwood recommends performing detection surveys, which "have been developed for most special-status species of wildlife." (Ex. A, p. 20.) Such detection surveys are necessary to support any conclusion that wildlife is absent from the Project site. (*Id.*) The City should also adopt compensatory mitigation measures to offset the impact of the project on wildlife movement because "[t]he proposed project site supports mature trees needed by bats and birds as stop-over habitat during long-distance dispersal or migration." (*Id.*) The impact on wildlife could be further reduced by requiring minimizing nighttime light pollution. (Ex. A, p. 21.) As mentioned above, drawing from the guidelines of the American Bird Conservancy and the City of San Francisco would help to mitigate the impact of window collision on avian wildlife. (*Id.*) Lastly, compensatory mitigation measures such as funding contributions to wildlife rehabilitation facilities would further reduce the impacts of the project on wildlife. (*Id.*) Because Dr. Smallwood has presented a fair argument that the Project will have a significant impact on wildlife, the City must prepare and circulate an EIR to incorporate the above concerns and suggested mitigation measures.

B. The IS/MND Relies on Unsubstantiated Input Parameters to Estimate Project Emissions and Thus Fails to Adequately Analyze the Project's Air Quality Impacts.

4-8 The IS/MND for the Project relies on emissions calculated from the California

Letter 4 Cont'd

4-8 Cont'd

Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). This model relies on recommended default values based on site specific information related to a number of factors. The model is used to generate a project's construction and operational emissions. SWAPE reviewed the Project's CalEEMod output files and found that several of the values input into the model were inconsistent with information provided in the IS/MND. This results in an underestimation of the Project's emissions. As a result, the Project may have a significant air quality impacts and an EIR is required to properly analyze these potential impacts. The following sections highlight SWAPE's findings.

1. The air quality model in the IS/MND fails to include all proposed land uses.

4-9

SWAPE shows that the Project's construction emissions are underestimated because the IS/MND's CalEEMod model failed to include the proposed 525-space parking land use even though the IS/MND states that Project includes "a 224-unit, 736-bed, student housing facility with 525 parking spaces on a 12.3-acre property." (IS/MND, p. 1; Ex. B., p. 2.) As SWAPE noted, "By completely omitting the proposed parking land use, the IS/MND fails to account for all the emissions that would be produced during construction and operation of the Project." (Ex. B, p. 2).

2. The air quality model in the IS/MND fails to account for all material export during construction.

4-10

SWAPE finds that the IS/MND's CalEEMod analysis failed to consider all of the construction debris that will be removed from the Project during site construction. According to the IS/MND, "Approximately 17,514 cubic yards (CY) of soil export associated with off-haul of contaminated soils would be required." (IS/MND, p. 23.) However, the value inputted into the CalEEMod in the IS/MND was only for 514 cubic yards of material export. (Ex. B, p. 3.) As a result, the Project's construction-level emissions are underestimated.

3. The air quality model in the IS/MND uses an incorrect land use population.

4-11

According to the IS/MND, the Project will consist of 224 residential units with 736 beds, generating approximately 736 new residents. (IS/MND, p. 70.) However, SWAPE found that the air model in the IS/MND assumed a population of only 598 residents. (Ex. B, p. 3.) By underestimating the resident population by 138 residents, the IS/MND underestimates the emissions associated with operation of the Project.

4. With more accurate input parameters, the air quality model results in emissions from the Project in excess of the SMAQMD threshold.

4-12

In order to determine more accurate estimates of the emissions of the Project, SWAPE prepared an updated CalEEMod model which included 479 parking spaces, 46 garage parking spaces, the full 17,154 cubic yards of soil export, and a resident population of 736 people. (Ex.

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B, p. 4.) The updated model resulted in NOx emissions of 101.8 pounds per day, a twenty-nine percent increase over the IS/MND estimate of 78.9 pounds of NOx per day. (*Id.*) Importantly, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has set a significance threshold for NOx of 85 pounds per day. Because the updated model exceeds the SMAQMD threshold for NOx, substantial evidence of a fair argument that the Project will have significant air quality impacts from NOx emissions and the City must prepare an EIR to address this impact and to incorporate appropriate mitigation measures.

4-12

C. The IS/MND Fails to Adequately Evaluate Health Risks from Diesel Particulate Matter Emissions

With hardly more than a couple sentences of explanation, the IS/MND inexplicably concludes that the health risk posed to nearby sensitive receptors from exposure to toxic air contaminant ("TAC") emissions and diesel particulate matter ("DPM") from the Project would be less than significant. No effort is made by the applicant to justify this conclusion with a quantitative health risk assessment ("HRA"). The IS/MND's back-of-the envelope approach to evaluating a Project's health impacts to existing nearby residences is inconsistent with the approach recommended by the California Office of Environmental Health Hazard Assessment ("OEHHA") and the California Air Pollution Control Officers Association ("CAPCOA").

OEHHA guidance makes clear that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors. (Ex. B, p. 6.) OEHHA also recommends a health risk assessment of a project's operational emissions for projects that will be in place for more than 6 months. (*Id.*) Projects lasting more than 6 months should be evaluated for the duration of the project, and an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident. (*Id.*) The Project would last at least 30 years and certainly much longer than six months.

4-13

In order for the IS/MND to be reasonable under CEQA, the cavalier assertions regarding the Project's health impacts on nearby residences must be substantiated with a thorough health risk assessment. Based on all of the guidance available from the expert agencies, a health risk assessment should have been prepared for the Project. The City and IS/MND's conclusory assertions fail to rebut the expert guidance.

SWAPE prepared a screening-level HRA to evaluate potential impacts from the Project. SWAPE used AERSCREEN, the leading screening-level air quality dispersion model. (Ex. B, p. 6.) SWAPE analyzed impacts to individuals at different stages of life based on OEHHA and SMAQMD guidance. (Ex. B, pp. 7-8.)

SWAPE found that the excess cancer risk for adults, children, infants, and third-trimester gestations at a sensitive receptor located approximately 25 meters away, over the course of Project construction and operation, are approximately 3.2, 29, 43, and 2.2 in one million, respectively. (Ex. B, p. 8.) Moreover, the excess cancer risk over the course of a residential lifetime is approximately 77 in one million. (*Id.*) These values appreciably exceed the SMAQMD's threshold of 10 in one million. This is a potentially significant impact not

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4-13 cont'd

addressed in the IS/MND. An EIR with a more refined HRA that is representative of site conditions must be prepared in order to evaluate the Project's health risk impact and to include suitable mitigation measures.

D. The IS/MND Fails to Demonstrate Compliance with the City's Climate Action Plan.

According to the IS/MND, the Project would not result in significant greenhouse gas (GHG) emissions because the Project would be consistent with the goals and policies of the City's Climate Action Plan (CAP). The City's CAP requires that projects subject to CEQA review complete a "CAP Consistency Review Checklist." (Ex. B, p. 9.) However, the IS/MND does not contain the CAP Consistency Review Checklist. Instead, as noted by SWAPE:

4-14

> [T]he IS/MND attempts to demonstrate consistency with the CAP by simply stating the goals and policies that the Project will incorporate or be consistent with. For example, the IS/MND states that it will be consistent with Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6 to increase the walkable areas and other policies that promote land use efficiency as well as pedestrian and bicycle traffic. Thus, while the IS/MND does reference the proposed Project's features related to pedestrian, bike, and transit accessibility, the Applicant fails to discuss compliance with the traffic calming, renewable energy, and water efficiency measures outlined in the Consistency Review Checklist

(Ex. B, p. 10.) Without evaluating all aspects of the Consistency Review Checklist, the Project cannot claim that it is consistent with the City's CAP. The City should prepare an EIR with an updated GHG analysis to ensure compliance with the City's CAP.

E. There is Substantial Evidence of a Fair Argument that the Project Will Have a Significant Health Risk Impact from its Indoor Air Quality Impacts.

Formaldehyde is a known human carcinogen. Many composite wood products typically used in residential and office building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. The primary source of formaldehyde indoors is

4-15

composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential and office building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims. Given the prominence of materials with formaldehyde-based resins that will be used in constructing the Project and the residential buildings, there is a significant likelihood that the Project's emissions of formaldehyde to air will result in very significant cancer risks to future residents and workers in the buildings. Even if the materials used within the buildings comply with the Airborne Toxic Control Measures (ATCM) of the California Air Resources Board (CARB), significant emissions of formaldehyde may still occur.

The residential buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose workers and residents to

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cancer risks well in excess of SMAQMD's threshold of significance. A 2018 study by Chan et al. (attached as Exhibit C) measured formaldehyde levels in new structures constructed after the 2009 CARB rules went into effect. Even though new buildings conforming to CARB's ATCM had a 30% lower median indoor formaldehyde concentration and cancer risk than buildings built prior to the enactment of the ATCM, the levels of formaldehyde still posed cancer risks greater than 100 in a million, well above the 10 in one million significance threshold established by the SMAQMD.

Based on expert comments submitted on other similar projects and assuming all the Project's and the residential building materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure, future residents and employees using the Project will be exposed to a cancer risk from formaldehyde greater than the SMAQMD's CEQA significance threshold for airborne cancer risk of 10 per million. Currently, the City does not have any idea what risk will be posed by formaldehyde emissions from the Project or the residences.

4-15

The City has a duty to investigate issues relating to a project's potential environmental impacts. (*See County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) "If the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record. Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.) Given the lack of study conducted by the City on the health risks posed by emissions of formaldehyde from new residential projects, a fair argument exists that such emissions form the Project may pose significant health risks. As a result, the City should prepare an EIR which calculates the health risks that the formaldehyde emissions may have on future residents and workers and identifies appropriate mitigation measures.

IV. CONCLUSION

4-16

For the foregoing reasons, the IS/MND for the Project should be withdrawn, an EIR should be prepared, and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

Sincerely,

Brian Flynn
Lozeau | Drury LLP

LETTER 4: BRIAN FLYNN, LOZEAU | DRURY LLP. FEBRUARY 8, 2019.

Response to Comment 4-1

The comment summarizes information related to the proposed project's background and the legal standards regarding a CEQA EIR. The comment does not directly address the adequacy of the IS/MND.

Response to Comment 4-2

Section II of the ISMND accurately describes the baseline conditions:

> "The project site consists of 12.95 acres and currently contains the Dorris Lumber & Moulding Company, which includes warehouse structures, office buildings, and storage facilities. On-site vegetation is sparse and includes small patches of ruderal grasses; however, approximately 77 percent of the site is overlain with impervious surfaces such as concrete and asphalt."

The proposed project would not affect terrestrial wildlife's use of the railroad right-of-way as a movement corridor, as cyclone fencing currently separates the site from the railroad. In addition, the project site does not contain substantial foraging, roosting or nesting habitat for American white pelicans, double-crested cormorants, white-faced ibises, sandhill cranes, osprey, or tricolored blackbirds. While such birds have been documented as flying over the site, the site does not contain special habitat features for the species. The proposed development would not prevent birds from flying over the site.

Furthermore, many of the species identified by the commenter do not qualify as special-status species per the criteria listed in Section 6.2 of the City of Sacramento General Plan Background Report, which defines special-status species as follows:

- Species listed, proposed, or candidate species for listing as Threatened or Endangered by the USFWS pursuant to the Federal Endangered Species Act (FESA) of 1969, as amended;
- Species listed as Rare, Threatened, or Endangered by the CDFW pursuant to the California Endangered Species Act (CESA) of 1970, as amended;
- Species designated as Fully Protected under Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians) of the California Fish and Game Code;
- Species designated by the CDFW as California Species of Concern;
- Plant species listed as Category 1B and 2 by the CNPS; and
- Species not currently protected by statute or regulation, but considered rare, threatened or endangered under CEQA (section 15380).

Table 6-3 in the General Plan Background Report includes the following special-status species potentially occurring the General Plan policy area:

- **Birds**: Tricolor blackbird (nesting), Burrowing owl (burrow sites), Swainson's hawk, Northern harrier (nesting), White-tailed kite (nesting), Loggerhead shrike (nesting), Song sparrow – "Modesto" population (year-round), Purple martin (nesting), and Bank swallow.
- **Mammals**: Pallid bat, Pacific western big-eared bat, Western red bat, and American badger.

The species listed above, as well as additional species with occurrence records in CDFW and USFWS databases covering an area of over 525 square miles (nine 1:25,000 USGS topographic quadrangles centered on the project site), were evaluated in the Biological Resource Report prepared for the IS/MND.

Neither Comment Letter 4 nor Appendix A to Comment Letter 4 includes any evidence, let alone substantial evidence, that the analysis presented in the Biological Resources section of the IS/MND is inadequate.

Response to Comment 4-3

The studies cited by the commenter do not reflect the scale and setting of the proposed development. Specifically, the proposed project would consist of 31 residential buildings ranging from one to three stories with standard-sized windows. The studies sited by the commenter include the following development types:

- A university with a three-story, glass-sided walkway between two multistory college campus buildings;
- A museum in an urban park;
- Corporate office parks with large expanses of glass, which were surrounded by, or intermixed with, open space and/or forested areas;
- High-rise buildings in New York City;
- A windowless 540-foot skyscraper in New York City; and
- The 555-foot-tall Washington Monument.

Unlike the proposed project, the structures listed above generally include large expanses of glass. Such structures are consistent with the type of buildings that the San Francisco Planning Department's "Standards for Bird-Safe Buildings" considers to be high-risk to birds and are considered to be "bird hazards." San Francisco's Bird-Safe Standards apply to two circumstances known to pose a high risk to birds and are considered to be "bird hazards."

For informational purposes, the two circumstances regulated by the Bird-Safe Standards are evaluated in Table 1 below for applicability to proposed project. As shown in the table, the circumstances would not apply. Furthermore, the Bird-Safe Standards provide exemptions for bird collision zone treatment for residential-zoned buildings less than 45-feet-tall with limited glass façades (less than 50 percent glazing). The project would qualify for such exemptions.

Table 1 Bird-Safe Standard Applicability	
Hazard	**The Retreat**
"Location-related hazards" are buildings located inside of, or within a clear flight path of less than 300 feet from, an urban bird refuge.	Not applicable. The project site is not adjacent to an urban bird refuge, defined herein as open spaces two acres or larger dominated by vegetation or adjacent to open water.
"Feature-related hazards" is a building specific hazard including free-standing clear glass walls, skywalks, greenhouses on rooftops, and balconies that have unbroken glazed segments 24 square feet and larger in size.	Not applicable. The proposed project would not include large expanses of glass or any other feature-related hazards.

Of the studies cited by the commenter, the study that most closely represents the scale and scope of the proposed development evaluated the following:

- A rural residence surrounded by mixed trees, shrubs, field and lawn;
- A suburban house surrounded by trees, shrubs, and lawn; and
- Approximately four-foot-wide by four-foot-tall square windows experimentally installed at the edge of a forest and corn field.

The project site is not located adjacent to a forest, field, or other similar natural habitat. Rather, the site is currently developed with a millworks and wood manufacturing facility and is surrounded by existing urban development. On the west side of the project site, powerlines and telecommunication lines are present on both sides of the street, with multiple lines at different elevations. To the north, the site is bordered by US 50, a light rail track bridge, and additional electrical infrastructure. Such features represent barriers to low-flying birds in the immediate site vicinity. In addition, the bird strike collisions per square meter of glass windows per year percentage referenced by the commenter appears to use mostly high-risk structures (high rises, glass sided buildings, multistory buildings adjacent to open spaces). Based on the above, metrics developed from "high-risk" examples are not applicable to the proposed project.

Response to Comment 4-4

The studies cited by the commenter do not reflect the scale and setting of the proposed development. Specifically, the studies focused on the following areas:

- Low traffic volume, two-lane paved roads outside major metropolitan areas and a four-lane road through Banff National Park; and
- A compilation of 16 studies (nine U.S. and seven European studies) of two or four lane roads and gravel roads.

The proposed project site is located within a major metropolitan area and is surrounded by existing buildings, roadways, and railways, whereas the studies referenced by the

commenter analyzed conditions in rural areas. In addition, as noted in the 2014 Loss et al. study, studies of road mortality usually focus on “hot spots”, or areas with atypically high wildlife mortality due to vehicle collisions, that would not be expected to be the same across every road in every region. Thus, the mortality rates produced by the studies cited by the commenter are not applicable to the proposed project.

Response to Comment 4-5

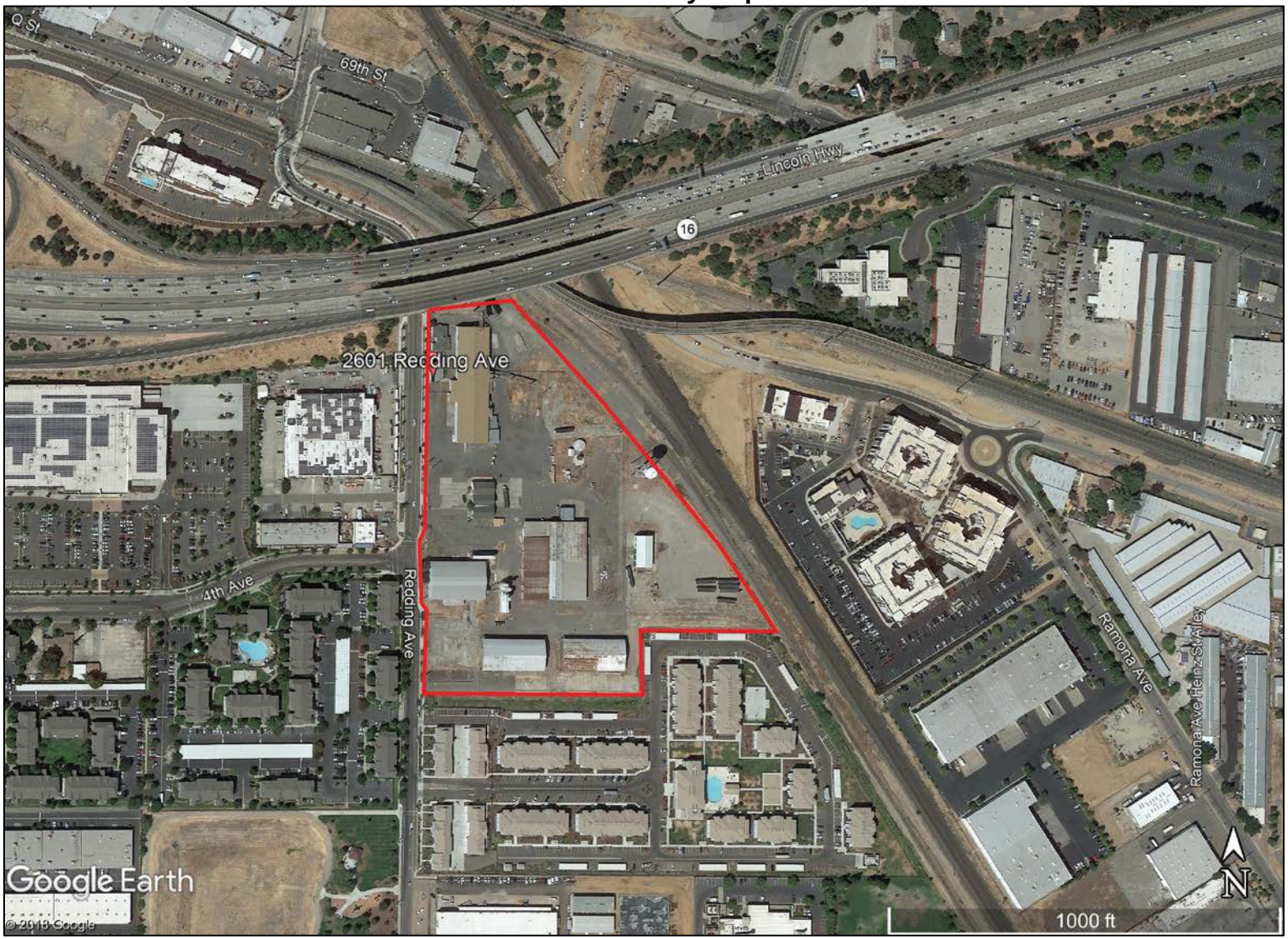
The Aesthetics section of the IS/MND addressed the environmental impacts related sources of light and glare associated with the proposed project. The IS/MND determined that the proposed project would be subject to General Plan policies, building codes, and a design review. Policy ER 7.1.4, of the 2035 General Plan states the following:

> Reflective Glass prohibits new development from resulting in any of the following: (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors; (2) using mirrored glass; (3) using black glass that exceeds 25 percent of any surface of a building; (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building; and (5) using exposed concrete that exceeds 50 percent of any building. The proposed project would comply with the aforementioned General Plan policies, which would be ensured through the Site Plan and Design Review process.

As such, with implementation of General Plan goals designed to reduce light and glare and proof of compliance through a design review, the proposed project would not result in the introduction of substantially greater intensity or dispersal of light relative to what has been previously analyzed in the Master EIR. In addition, the project site is an infill location surrounded by existing development that includes multi-family residential uses to the east, southwest, and south and commercial development to the west (see Figure 1). As it stands, the discussion of the project’s impacts relating to new sources of light and glare is consistent with the General Plan and similar in the type and intensity as adjacent multi-family residential development. Pursuant to CEQA Guidelines, additional analysis of the project’s impact to lighting is not required.

Furthermore, the project area is located within a brightly lit urban area. Substantial sources of light in the project area include the Sacramento State University Hornets Stadium (less than 0.5-mile north of the site), a 140,000 square foot Target store (less than 1,000 feet west of the site), and US 50, which is elevated above the project site’s north boundary. The chapter cited by the commenter addresses lighthouses and lightships, floodlights and ceilometers, city lights and horizon glows, fires and flares, and broadcast and communication towers. The scale of the effect of city lights and horizon glows (most relevant to the project), especially in urban Sacramento, is much broader than that of the group of residential buildings that would be developed with the project. Thus, lighting associated with the proposed project would be relatively minor relative to existing sources of light in the project area.

Figure 1
Aerial Vicinity Map



Response to Comment 4-6

The project site is located in an urban and built-out area within the City of Sacramento and is surrounded by existing development that includes multi-family residential to the east, south, and southwest, and commercial development to the west. Thus, the project site could be considered infill development.

The 2035 Master EIR states that the majority of development that could occur under the 2035 General Plan would consist of infill and urban expansion of developed areas, which do not support a wide diversity of biological resources. Despite the relatively probability that special-status species would occur within such development areas, implementation of General Plan Policy ER 2.1.10 would require habitat assessments for sensitive species to be conducted and, if habitat is present, focused/protocol-level surveys conducted for any project requiring discretionary approval. The Master EIR concluded that, with implementation of General Plan policies, build-out of the 2035 General Plan would result in less-than-significant impacts related to reducing the habitat or population of special-status wildlife species. The proposed project would be consistent with the General Plan and, therefore, be subject to compliance with all General Plan goals and policies related to biological resources. As such, Mitigation Measures 3-1 through 3-4(b) would be adequate to reduce impacts to special-status wildlife species to less-than-significant levels.

In addition, the project site does not contain any existing wildlife corridors. The site is highly disturbed and has significant movement barriers. For example, while the nearby railroad right-of-way may function as a movement corridor, cyclone fencing with barbed wire on top separates the site from the fenced railroad tracks. The roads, commercial and residential development around the property render the site highly unlikely to serve as a movement corridor for terrestrial wildlife. In addition, the site has relatively few trees, most of which are street trees along Redding Avenue. The site does not contain any aquatic resources that would attract avian species on a significant scale (particularly with the American River corridor as an alternative less than a mile away). The height of the proposed structures would be similar to other existing structures surrounding the site and would not obstruct flyways of avian species. Migrating birds in particular fly at much higher altitudes.

Furthermore, the project site is not a “stop-over” or “staging” habitat for migrating wildlife. The site was an active millworks facility through 2018. The level of human activity and noise from the manufacturing facility would discourage “stop-overs.” The site lacks substantial vegetation or other natural resources that would qualify it as Warnock’s (2010) definition of staging habitat: “[…] sites with abundant, predictable food resources where birds prepare for an energetic challenge (usually a long flight over a barrier such as an ocean or a desert) requiring substantial fuel stores and physiological changes without which significant fitness costs are incurred.” The site would not fragment any existing contiguous habitat; rather, the site is currently developed and is surrounded by existing development that has already fragmented the landscape on a much larger scale.

Response to Comment 4-7

The project site is currently built-out with a millworks and wood manufacturing facility and is surrounded by existing development. As such, redevelopment of the project site with multi-family residential housing would not substantially reduce the habitat of a wildlife species. Furthermore, the commenter does not specify why the pre-construction surveys required as mitigation in the IS/MND would not be adequate to ensure that special-status species are absent from the site prior to initiation of construction/demolition activities. The mitigation provided in the IS/MND is consistent with the Biological Resources Evaluation prepared for the proposed project by Sycamore Environmental Consultants, Inc.

With regard to window collisions, light pollution, and wildlife movement, please see Response to Comments 4-3, 4-5, and 4-6, respectively.

Response to Comment 4-8

See Response to Comments 4-9 through 4.15 below.

Response to Comment 4-9

As noted in the CalEEMod Use Guide, CalEEMod inherently accounts for driveways and parking areas when modeling residential land uses.[1] Thus, parking areas were accounted for in the project modeling.

Response to Comment 4-10

The discussion on page 23 of the IS/MND contains an error which states that 17,514 CY of soil export would be associated with the proposed project. A review of the CalEEMod modeling results for the proposed project confirmed the correct input of 514 CY was modeled. Thus, the CalEEMod modeling results for the proposed project are consistent with what is anticipated for the proposed project and the calculated construction-level emissions are accurate. Based on the information contained in the comment, page 23 of the IS/MND is hereby amended as follows:

- Prior to development of the project site, 115,364 square feet (sf) of existing on-site structures would be demolished;
- Approximately ~~17,~~514 cubic yards (CY) of soil export associated with off-haul of contaminated soils would be required; and
- Approximately 17,514 CY of soil import would be required, including 44 CY to replace off-hauled soils.

The above changes are for clarification purposes only and do not affect the conclusions of the IS/MND.

[1] California Air Pollution Control Officers Association. *California Emissions Estimator Model, User's Guide, Version 2016.3.2* [pg. 20]. November 2017.

Response to Comment 4-11

Emissions estimates produced by CalEEMod are not based on population inputs. Thus, the default population assumptions in CalEEMod do not affect the modeling outputs. Therefore, the modeling performed in the proposed project is consistent with anticipated operational emissions associated with the proposed project.

Response to Comment 4-12

See Response to Comments 4-9 through 4-11 above. Given that CalEEMod inherently accounts for parking associated with residential uses, the modeling referenced by the commenter overestimates emissions from the proposed parking areas and the overall project.

Response to Comment 4-13

Potential impacts related to the exposure of sensitive receptors to substantial pollutant concentrations are discussed in-depth on pages 25 through 28 of the IS/MND. The discussion of pollutant concentrations includes consideration of pollutants during both project operations and construction. As noted on page 27 of the IS/MND, operation of the proposed project would not include activities considered to be major sources of toxic air contaminants (TACs) by the California Air Resources Board (CARB).

As noted in the IS/MND, project construction would involve the use of off-road construction equipment, some of which may be diesel-powered, resulting in the emission of diesel particulate matter (DPM) during project construction. The Sacramento Metropolitan Air Quality Management District's (SMAQMD's) *Guide to Air Quality Assessment in Sacramento County* notes that SMAQMD has not established a quantitative threshold of significance for construction-related TAC emissions, and recommends that construction activity be considered on a case-by-case basis.[2] In the case of the proposed project, the IS/MND included project-specific analysis of potential sources of DPM during project construction and concluded that the anticipated construction activity would be unlikely to result in DPM emissions resulting in a significant increase in cancer risk to nearby sensitive receptors.

Subsequent to preparation of the IS/MND a health risk assessment was performed to provide further information related to the potential for construction of the proposed project to result in significant health risks to nearby sensitive receptors due to the exposure of such receptors to DPM from construction equipment. DPM is the solid material in diesel exhaust, more than 90 percent of such material is less than one micrometer in diameter, and, thus, DPM is a subset of the $PM_{2.5}$ category of pollutants. The $PM_{2.5}$ associated with short-term construction activities resulting from implementation of the proposed project under the aforementioned construction assumptions, at the maximally exposed sensitive

[2] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County* [pg. 5-4]. May 2018.

receptor nearest to the site, has been estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD) dispersion model. The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.[3] The modeling was performed in accordance with the USEPA's User's Guide for the AMS/EPA Regulatory Model – AERMOD[4] and the 2015 OEHHA Guidance Manual.

The CalEEMod results for average annual unmitigated construction exhaust $PM_{2.5}$ emissions from the proposed project were used to calculate the emission rate applied in AERMOD. Construction activities were assumed to occur seven days per week and restricted to the hours specified in IS/MND Mitigation Measure 8-1. The construction exhaust emissions were modeled in AERMOD as a series of volume sources located throughout the site where improvements are proposed. A receptor grid using flagpole receptors was applied to AERMOD all locations of sensitive receptors within one-quarter mile of the project site, per SMAQMD air dispersion modeling guidance. The maximum annual average and maximum one-hour average concentrations from AERMOD were applied to HARP 2 RAST to calculate the cancer risk and non-cancer hazard index, respectively, to the maximally exposed resident in the area surrounding the project site.

As noted previously, SMAQMD does not maintain a specific threshold for increased cancer or non-cancer health risks resulting from construction activity. However, SMAQMD and the City consider an increase in risk of cancer by 10 in 1 million cases or more to be a significant impact resulting from operation of a stationary source of TACs. Although construction equipment operating within the project site would be mobile, and would operate at various locations within the project site throughout project construction, allowing for variable dispersion of DPM within the project site, for the purposes of this analysis, the City and SMAQMD's standard that sources should not result in an increased risk of cancer by more than 10 in 1 million cases is applied to the health risk for construction activity. Additionally, SMAQMD considers an increase in a hazard index of one or more resulting from operation of any stationary equipment a significant impact. Thus, in the absence of a specific hazard index threshold for construction activity, the proposed project would be considered to result in a significant impact if DPM from construction activity results in a hazard index of one or more.

The cancer and non-cancer health risks associated with construction-related DPM emissions are presented in Table 2 below.

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[3] Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

[4] U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

Table 2 Maximum Cancer Risk and Hazard Index Associated with Construction DPM			
	Cancer Risk (per million persons)	**Acute Hazard Index**	**Chronic Hazard Index**
At Maximally Exposed Receptor	8.12	0.00	0.09
Thresholds of Significance	*10*	*1.0*	*1.0*
Exceed Thresholds?	**NO**	**NO**	**NO**
Sources: AERMOD, and HARP 2 RAST, February 2019 (see Appendix).			

As shown in Table 2, construction activity would not result in cancer or non-cancer health risks in excess of the SMAQMD's thresholds of significance.

The commenter proports to have analyzed operational health risks resulting from the proposed project; however, as discussed on page 27 of the IS/MND, the proposed project would not include operations that would result in a substantial amount of TAC emissions. The commenter does not provide information regarding the type of TAC emissions assumed to result from operation of the proposed project, and, therefore, the source and accuracy of the health risks presented in the comment cannot be assessed. Regardless of the commenter's assertion that operations of the proposed project would result in increased operational health risks, operations of the proposed project would not involve any substantial sources of TACs identified by the CARB in the *Air Quality and Land Use Handbook: A Community Health Perspective*.[5]

Response to Comment 4-14

The City does not currently require use of the Consistency Review Checklist. The Checklist was previously used by the City when the City's Climate Action Plan (CAP) was separate from the City's General Plan. Given that the CAP has since been incorporated into the General Plan, consistency with the General Plan policies referenced in the IS/MND is sufficient to ensure consistency with the CAP. Thus, the analysis presented within the IS/MND is consistent with Section 15064.4 of the CEQA Guidelines.

Response to Comment 4-15

The 2018 study referenced by the commenter addressed long-term (30-year) exposure of residents to formaldehyde. The proposed project would consist of student housing and, thus, would involve a much shorter exposure period for each resident. In addition, the 2018 study referenced by the commenter specifically states that "[…] new California homes now have lower indoor formaldehyde levels than previously measured, likely as a result of California's formaldehyde emission standards." Such standards include the Airborne Toxic Control Measures (ATCM) adopted by CARB. As building standards continue to become more stringent, formaldehyde concentrations in new development are anticipated to decrease. Given that the newer subset of homes evaluated in the study

[5] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Perspective*. April 2005.

were built between 2011 and 2018, whereas the proposed homes would be constructed in 2019 or later, formaldehyde concentrations associated with the proposed residences would likely be lower than those referenced in the study.

The 2018 study does not make any conclusions regarding the health risks of formaldehyde concentrations. Rather, the study only presents average concentrations of formaldehyde, as well as other pollutants associated with cooking fumes, from the 70 new homes evaluated in the study. The commenter does not provide information regarding the 'expert comments submitted on other similar projects' that have led to the conclusion that future residents and workers at the project would be exposed to a substantial cancer risk due to formaldehyde exposure. Therefore, the source and accuracy of the health risks presented in the comment cannot be assessed.

Furthermore, per SMAQMD, the 10 in one million threshold referenced by the commenter is generally not used for consideration of health risks due to indoor exposure. Such a threshold is typically used to consider airborne cancer risk associated with outdoor areas. Therefore, the conclusions reached by the commenter would be inaccurate as to indoor areas.

Response to Comment 4-16

The comment summarizes the conclusions of the commenter's letter and restates the opinion that the IS/MND should be withdrawn and an EIR be prepared for the proposed project. The concerns have been responded to in the above responses.

Response to Exhibit A

Please see Response to Comments 4-2 through 4-7.

The commenter suggests that the IS/MND include, as mitigation, funding contributions to wildlife rehabilitation facilities. However, given that the mitigation provided in the IS/MND would be sufficient to reduce impacts to less-than-significant levels, additional mitigation is not necessary. It should be noted that Exhibit A includes references to development of a hotel, which is not included as part of the proposed project.

Response to Exhibit B

Please see Response to Comments 4-9 through 4-15.

Response to Exhibit C

The document contains information referenced in Letter 4, but does not specifically address the adequacy of the IS/MND.