City of
SACRAMENTO
Community Development

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

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

PROPOSED 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:

Harvard Park (P17-061)

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.

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: _____

Harvard Park
P17-061

Initial Study/Mitigated Negative Declaration

PREPARED FOR THE
CITY OF SACRAMENTO

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

OCTOBER 2018

HARVARD PARK

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

This Initial Study/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 Master EIR for the 2035 General Plan.

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.

SECTION I - BACKGROUND

Project Name and File Number:	2241 – 2251 Harvard Street Office Buildings (P17-061)
Project Location:	2241 Harvard Street Sacramento, CA 95815 Assessor's Parcel Numbers (APNs) 277-0151-026 and -024
Project Applicant:	Kevin L. Wilcox AIA, LEED AP Comstock Johnson Architects, Inc. 10520 Armstrong Avenue Mather, CA 95655 (916) 362-6303 Ext. 105 kevin@cja-architects.com
Project Planner:	Teresa Haenggi, Senior Planner (916) 808-7554 thaenggi@cityofsacramento.org
Environmental Planner:	Tom Buford, Principal Planner (916) 808-7931 tbuford@cityofsacramento.org
Date Initial Study Completed:	October 2018

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 of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project would not result in any significant and unavoidable impacts. The initial study 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)).

Policies included in the 2035 General Plan that reduce significant impacts identified in the 2035 General Plan Master EIR are identified and discussed as applicable within each section of this IS/MND. 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

Project Location

The 23.3-acre proposed project site is located at 2241 Harvard Street in the City of Sacramento, California (see Figure 1 and Figure 2). The project site occupies an area bound by Silica Avenue on the north, Harvard Street on the east, Arden Way on the south, and the Sacramento Regional Transit rail line and the Southern Pacific Railroad (SPRR) tracks to the west. Regional access is provided by Interstate 80 Business (I-80B) and State Route (SR) 160. The proposed project site is identified as Assessor's Parcel Number (APN) 277-0151-026.

Existing Conditions and Surrounding Uses

The City of Sacramento 2035 General Plan designates the project site as Employment Center Mid Rise. The current zoning designation for the project site General Commercial (C-2). The southern portion of the 23.3-acre project site is currently vacant and regularly disked. The northern portion is currently developed with five existing on-site structures constructed between 1988 and 1990, as well as a five-story parking structure with a total of 1,093 parking stalls, outdoor covered areas, a baseball field, an asphalt basketball court, and sand volleyball court. The existing structures include a six-story and four-story office building, a single-story service building/fitness center, and a single-story child development center.

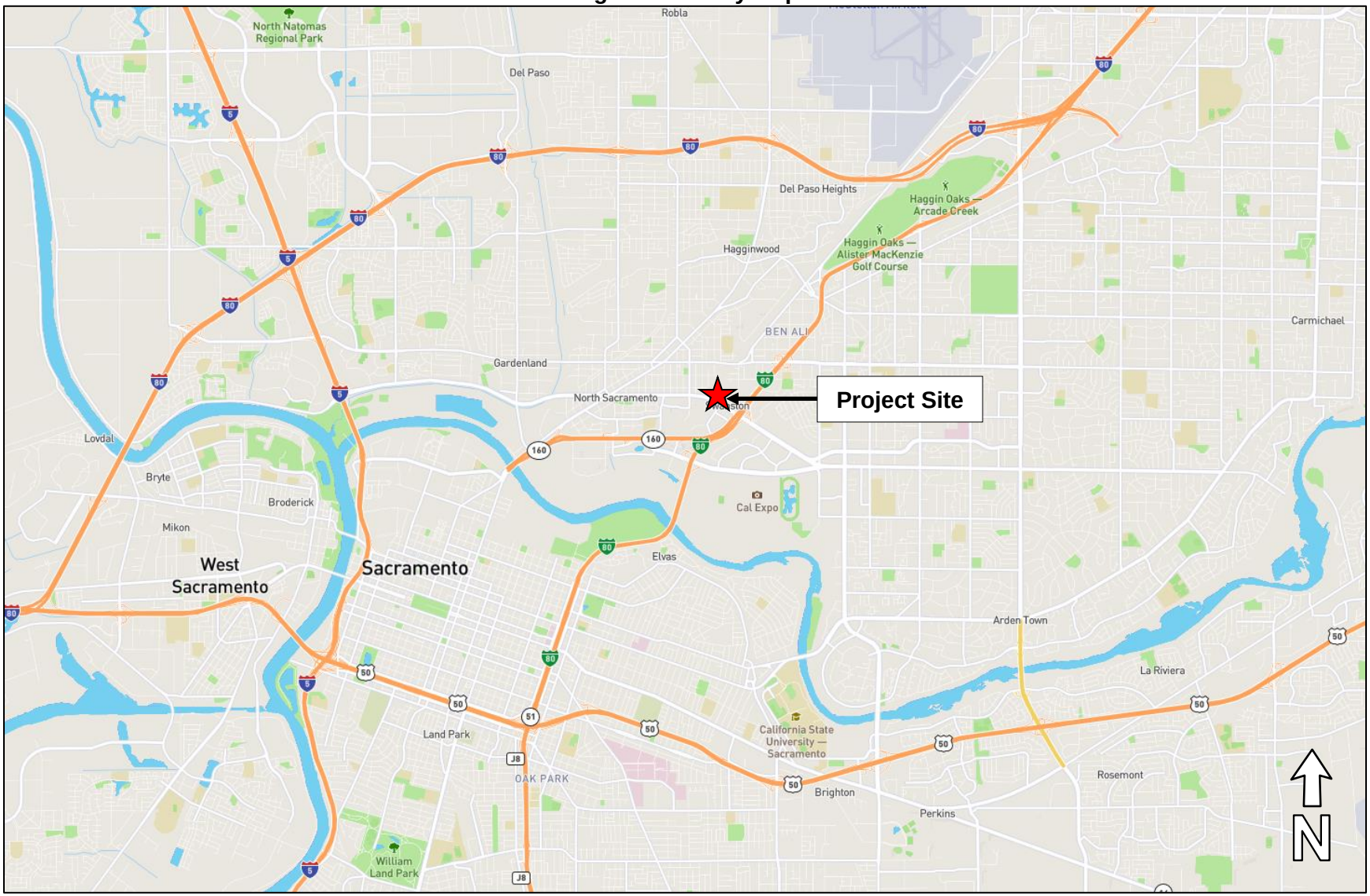
Existing surrounding land uses include the following: various commercial business, an automotive repair shop, and an equipment yard to the north; commercial offices, auto sales lots, a single-family residence, and Hilton Hotel to the east; commercial offices, Extended Stay America Hotel and vacant land to the south; and the Swanston Station to the west, across the Sacramento Regional Transit rail line and the Southern Pacific Railroad (SPRR) tracks paralleling the site's western boundary.

Project Description

A planning application was received by the City of Sacramento for the 2241-2251 Harvard Street Office Buildings Project (proposed project and subsequently renamed by the project applicant). The proposed project would include subdivision of the approximately 23.3-acre site into three parcels (Lots A, B, and C) for development of two new office buildings totaling approximately 253,750 square feet (sf) (see Figure 3 and Figure 4).

Lot A, located in the northeast portion of the site, would consist of approximately 12.8 acres and would include the existing four-story and six-story office buildings, the existing single-story service building/fitness center and single-story child development center, and the existing five-story parking structure. Lot B, located near the central portion of the site, would consist of approximately 5.4 acres and would include the existing on-site recreation facilities, including an approximately 3,000 structure housing two restroom stalls, a canopy, and small utility rooms. Lot C, located at the southern portion of the site, would consist of approximately 5.1 acres. Lot C is currently vacant and undeveloped.

Figure 1
Regional Vicinity Map



Source: Mapbox, OpenStreetMap, 2018.

Figure 2
Project Location

Source: Mapbox, OpenStreetMap, 2018.

Figure 3
Tentative Parcel Map

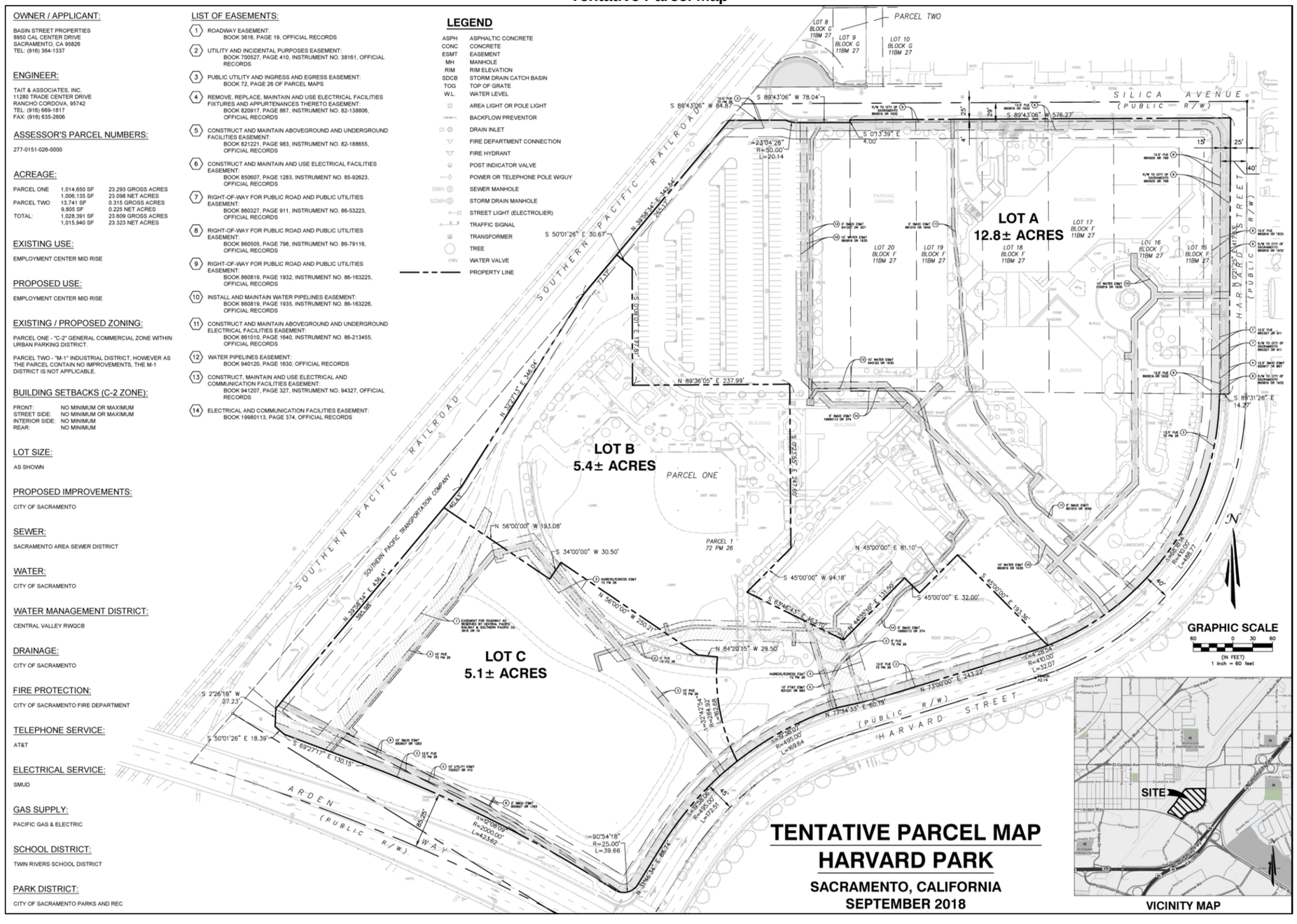
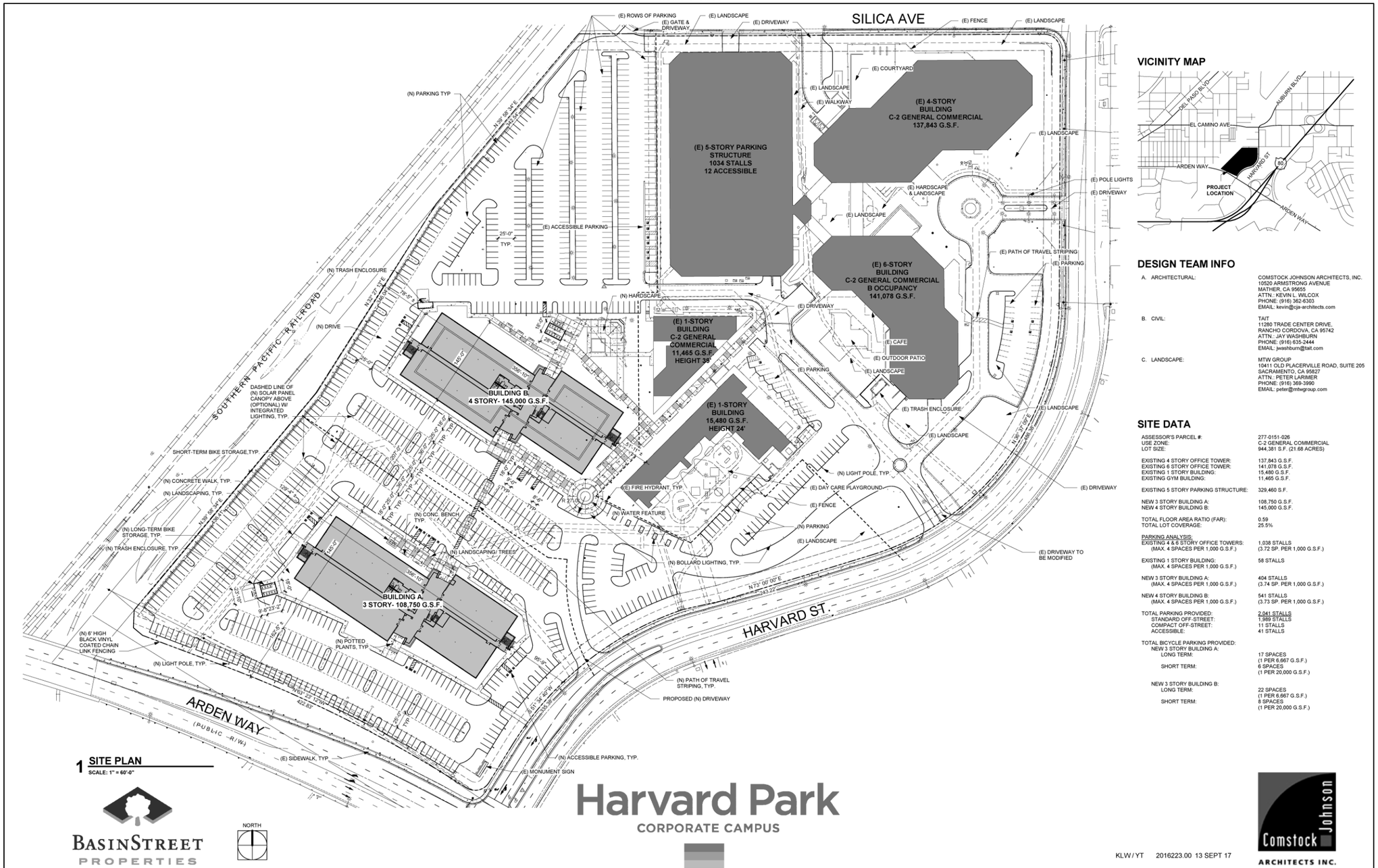


Figure 4
Site Plan



VICINITY MAP

DESIGN TEAM INFO

A.	ARCHITECTURAL:	COMSTOCK JOHNSON ARCHITECTS, INC. 10520 ARMSTRONG AVENUE MATHER, CA 95655 ATTN.: KEVIN L. WILCOX PHONE: (916) 362-6303 EMAIL: kevin@cja-architects.com
B.	CIVIL:	TAIT 11280 TRADE CENTER DRIVE, RANCHO CORDOVA, CA 95742 ATTN.: JAY WASHBURN PHONE: (916) 635-2444 EMAIL: jwashburn@tait.com
C.	LANDSCAPE:	MTW GROUP 10411 OLD PLACERVILLE ROAD, SUITE 205 SACRAMENTO, CA 95827 ATTN.: PETER LARIMER PHONE: (916) 369-3990 EMAIL: peter@mtwgroup.com

SITE DATA

ASSESSOR'S PARCEL #:	277-0151-026
USE ZONE:	C-2 GENERAL COMMERCIAL
LOT SIZE:	944,381 S.F. (21.68 ACRES)
EXISTING 4 STORY OFFICE TOWER:	137,843 G.S.F.
EXISTING 6 STORY OFFICE TOWER:	141,078 G.S.F.
EXISTING 1 STORY BUILDING:	15,480 G.S.F.
EXISTING GYM BUILDING:	11,465 G.S.F.
EXISTING 5 STORY PARKING STRUCTURE:	329,460 S.F.
NEW 3 STORY BUILDING A:	108,750 G.S.F.
NEW 4 STORY BUILDING B:	145,000 G.S.F.
TOTAL FLOOR AREA RATIO (FAR):	0.59
TOTAL LOT COVERAGE:	25.5%
PARKING ANALYSIS:	
EXISTING 4 & 6 STORY OFFICE TOWERS: (MAX. 4 SPACES PER 1,000 G.S.F.)	1,038 STALLS (3.72 SP. PER 1,000 G.S.F.)
EXISTING 1 STORY BUILDING: (MAX. 4 SPACES PER 1,000 G.S.F.)	58 STALLS
NEW 3 STORY BUILDING A: (MAX. 4 SPACES PER 1,000 G.S.F.)	404 STALLS (3.74 SP. PER 1,000 G.S.F.)
NEW 4 STORY BUILDING B: (MAX. 4 SPACES PER 1,000 G.S.F.)	541 STALLS (3.73 SP. PER 1,000 G.S.F.)
TOTAL PARKING PROVIDED:	2,041 STALLS
STANDARD OFF-STREET:	1,989 STALLS
COMPACT OFF-STREET:	11 STALLS
ACCESSIBLE:	41 STALLS
TOTAL BICYCLE PARKING PROVIDED:	
NEW 3 STORY BUILDING A: LONG TERM:	17 SPACES (1 PER 6,667 G.S.F.)
SHORT TERM:	6 SPACES (1 PER 20,000 G.S.F.)
NEW 3 STORY BUILDING B: LONG TERM:	22 SPACES (1 PER 6,667 G.S.F.)
SHORT TERM:	8 SPACES (1 PER 20,000 G.S.F.)

1 **SITE PLAN**
SCALE: 1" = 60'-0"

BASINSTREET PROPERTIES

Harvard Park
CORPORATE CAMPUS

KLW / YT 2016223.00 13 SEPT 17

Comstock Johnson ARCHITECTS INC.

The proposed project would not include any modifications to the existing buildings and associated infrastructure located within Lot A. Within Lot B, the existing outdoor recreational facilities and the associated 3,000-sf outbuilding would be demolished; the existing improvements within Lot A, including the single-story child development facility, would remain in place. Lot B would be developed with a four-story, 145,000-sf office building (Building B) to the west of the child development facility. To the south, Lot A would be developed with a three story, 108,750-sf office building.

Site Access and Circulation

Access to the project site is provided by a driveway from Silica Avenue north of the site and a driveway from Harvard Street east of the project site. With development of the proposed project, the two driveways would remain in place. In addition, the project would include construction of a 39-foot-wide access point located off of Harvard Street at the southeastern boundary of the project site.

The site access would lead into private drive aisles that would be constructed within the project site, providing access to new parking areas located around the perimeter of Building A and south of Building B. A small number of parking stalls would be added along the western boundary of the existing parking lot within Lot A. The proposed drive aisles would be 24 feet wide and would include on-street guest parking along certain sections of each of the roads. In addition, the project would include the construction of new curb, gutter, and sidewalks throughout the portions of the site where new circulation improvements are proposed.

Project Infrastructure

The following discussion relates to the water, wastewater, and drainage infrastructure components of the proposed project.

Water

Municipal water service for the developed areas of the site is currently supplied by the City of Sacramento. The City of Sacramento uses surface water from the Sacramento and American Rivers, and groundwater pumped from the North American and South American sub-basins to meet the City's water demands. The City of Sacramento would continue to supply water to the proposed buildings. Within the southern portion of the site, which is currently vacant and undeveloped, the proposed project would extend new privately owned and maintained eight-inch minimum water lines westward from the City's existing 12-inch water main located in Harvard Drive (see Figure 5 and Figure 6).

Wastewater

The proposed project would be provided wastewater collection and treatment services by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD). Wastewater generated in the project area is collected in the SASD system through a series of sewer pipes and pump stations. Once collected in the SASD system, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to the Sacramento Regional Wastewater Treatment Plant. The proposed project site would include construction of six-inch sanitary sewer lines within the project site that would connect to an existing eight-inch sewer line within the southeastern portion of the site.

Figure 5
Preliminary Utility Plan – Southern Portion

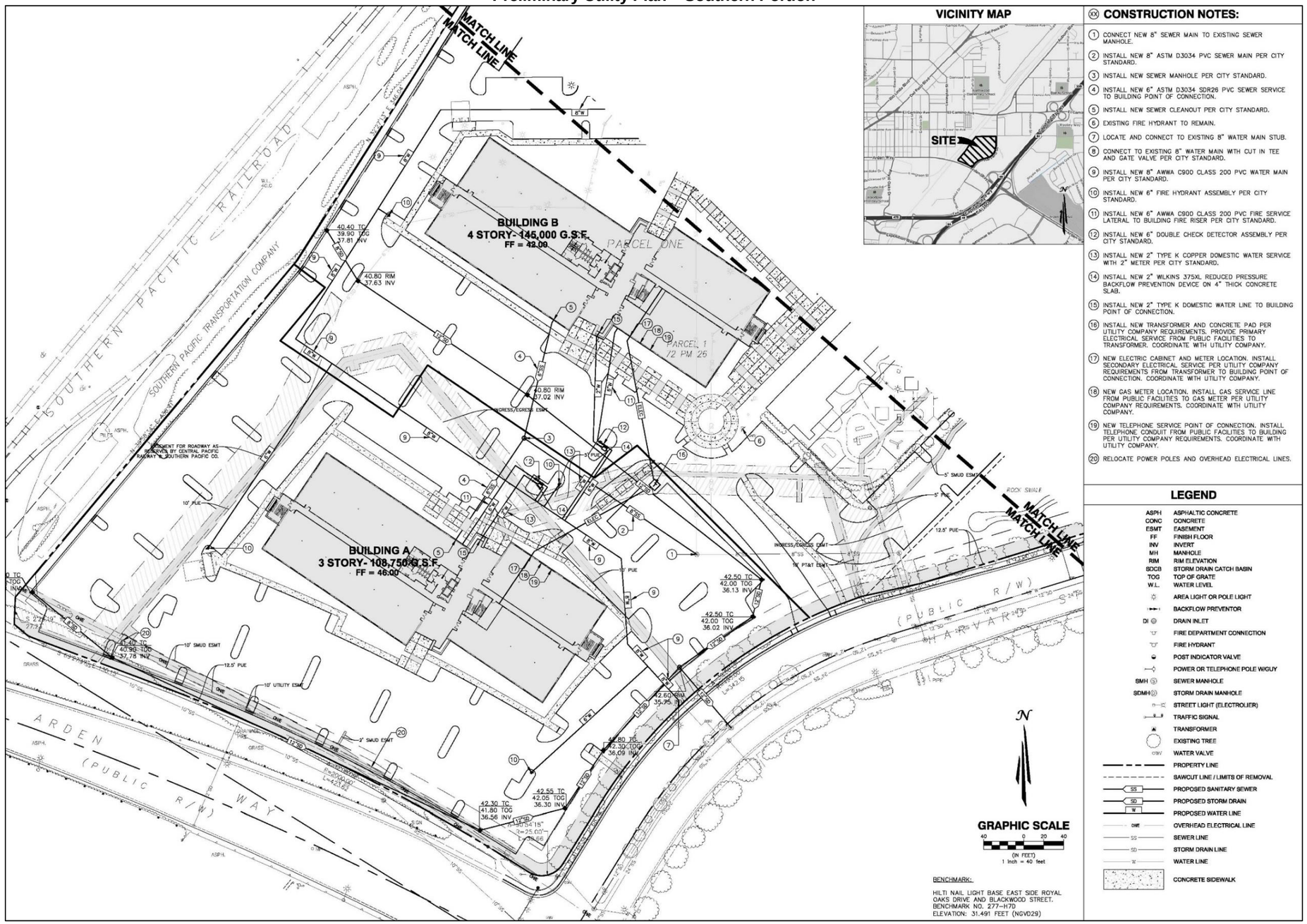
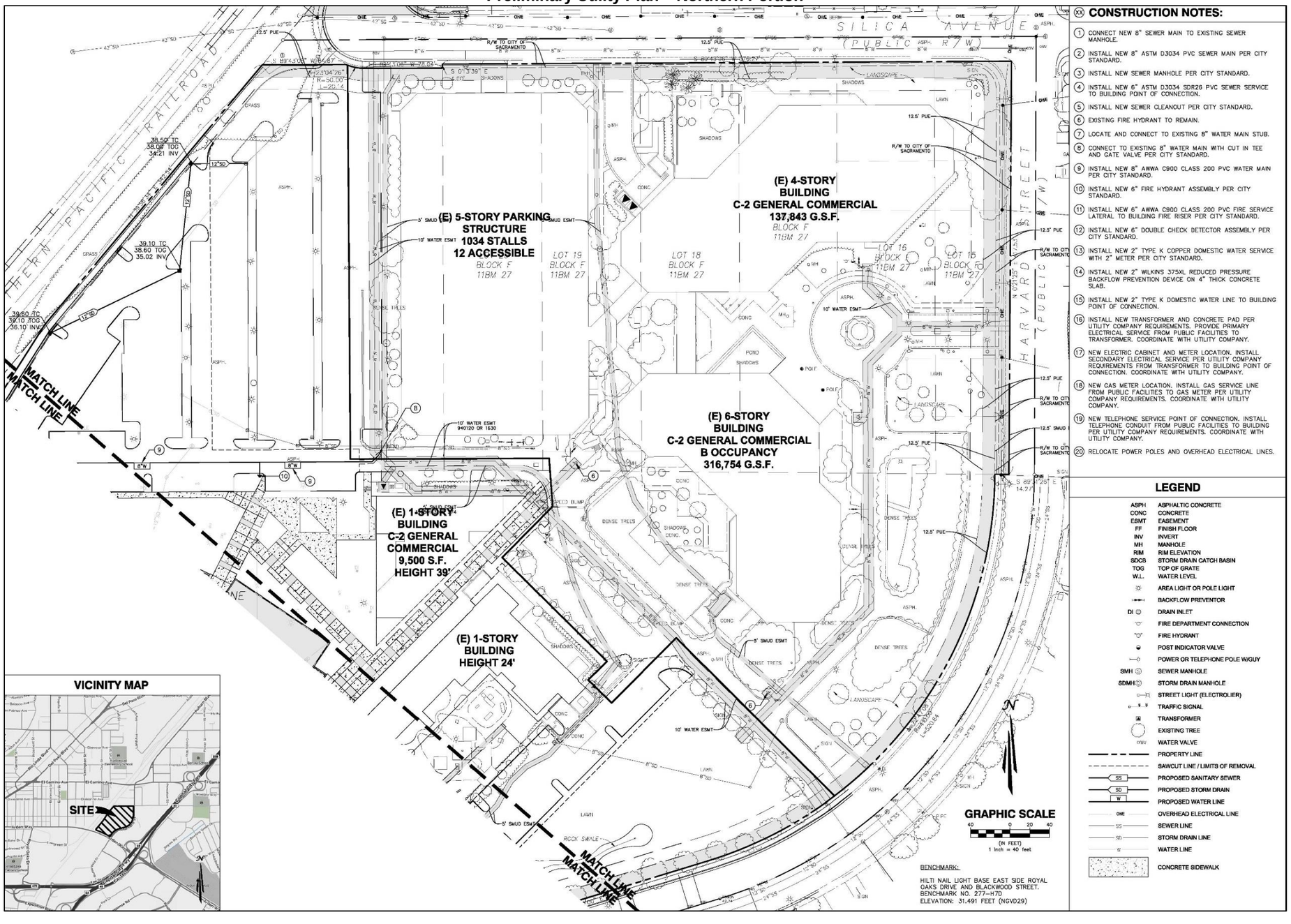


Figure 6
Preliminary Utility Plan – Northern Portion



The existing eight-inch sewer line flows to a 24-inch sewer line located within Harvard Street along the site's eastern boundary (see Figure 5 and Figure 6).

Stormwater Drainage

Stormwater runoff from impervious areas created as part of the proposed project would sheet flow to pervious pavement within the proposed parking areas. Stormwater entering the pervious pavement would infiltrate through underlying layers of sand, gravel, and filter fabric, which would filter out pollutants and provide for detention of flows. The pervious pavement areas would be underlain with a series of eight-inch and 12-inch perforated pipes that would route treated runoff to the existing 42-inch storm drain located within Silica Avenue to the north of the site and the existing 12-inch storm drain located within Harvard Street to the east of the site (see Figure 7).

Additional stormwater treatment measures (i.e., vegetated swales, bio-retention basins, etc.) would be provided on-site as necessary to meet the detention and water quality requirements applicable to the project. Any stormwater treatment measures would be required to comply with the latest edition of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*.

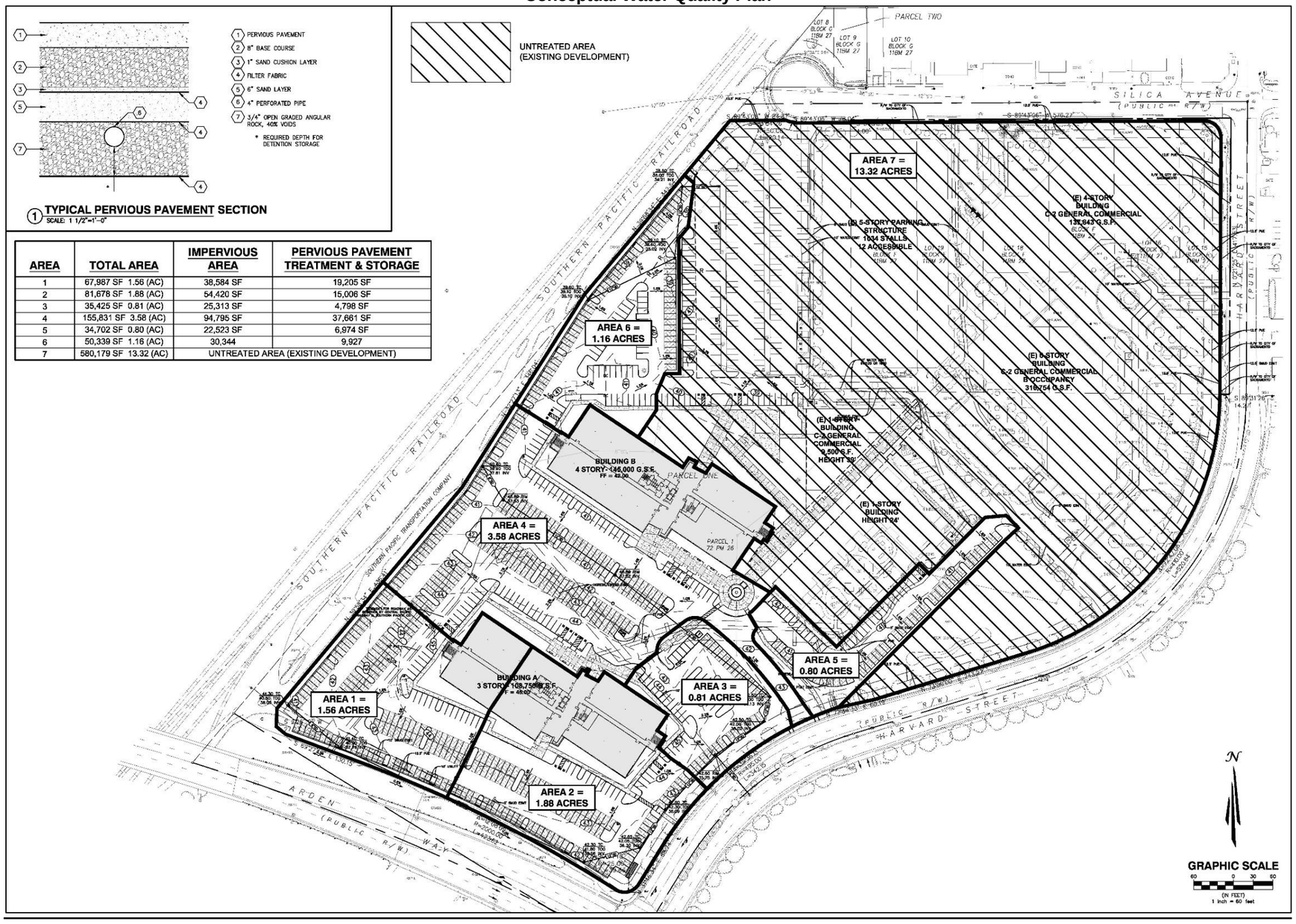
Project Approvals

The proposed project would require the following approvals by the lead agency (i.e., the City of Sacramento):

- Approval of the IS/MND and Mitigation Monitoring Plan;
- Approval of the Tentative Parcel Map; and
- Site Plan and Design Review.

Figure 7
Conceptual Water Quality Plan

AREA	TOTAL AREA	IMPERVIOUS AREA	PERVIOUS PAVEMENT TREATMENT & STORAGE
1	67,987 SF 1.56 (AC)	38,584 SF	19,205 SF
2	81,676 SF 1.88 (AC)	54,420 SF	15,006 SF
3	35,425 SF 0.81 (AC)	25,313 SF	4,798 SF
4	155,831 SF 3.58 (AC)	94,795 SF	37,661 SF
5	34,702 SF 0.80 (AC)	22,523 SF	6,974 SF
6	50,339 SF 1.16 (AC)	30,344	9,927
7	580,179 SF 13.32 (AC)	UNTREATED AREA (EXISTING DEVELOPMENT)	



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

The proposed project would include subdivision of the 23.3-acre site into three parcels to develop two new office buildings totaling approximately 253,750 sf. The proposed development would be consistent with the site's current land use and zoning designations of Employment Center Mid-rise and General Commercial (C-2), respectively.

Existing land uses surrounding the project site include various commercial uses to the north, east, and south, the Hilton Sacramento Arden West Hotel and the Extended Stay America Hotel to the east, and the Union Pacific Railroad along the western border of the site. Given that portions of the site are currently developed, and the site does not contain any existing residential development, implementation of the project would not physically divide an established community. In addition, the proposed project site is not currently included as part of any habitat conservation plan or natural community conservation plan.

Based on the above, the proposed project would not result in impacts related to land use.

Population and Housing

The proposed project site is located within a developed area of the northwestern portion of the City of Sacramento. Surrounding land uses include various commercial uses to the north, east, and south, the Hilton Sacramento Arden West Hotel and a single residence to the east, the Extended Stay America Hotel to the south, and the Swanston Station transit center and the Sacramento Regional Transit rail line to the west. The site does not contain any existing residential development.

Development of the southern portion of the project site with two office buildings and associated improvements would not displace any existing housing units or people and construction or replacement of housing elsewhere would not be necessary for the project. Furthermore, the project would be consistent with the site's current General Plan land use and zoning designations.

Thus, the proposed project would not result in impacts related to population and housing beyond what was previously analyzed in the Master EIR.

Agricultural Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources (see Master EIR, Chapter 6.2). In addition to evaluating the effect of the General Plan on sites within the City, the Master EIR noted that to the extent the 2035 General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized. (Master EIR, page 6.2-13) The Master EIR concluded that the impact of the 2035 General Plan on agricultural resources within the City was less than significant.

The proposed project site is currently vacant and the site is located in an urban area surrounded by commercial and office development. The project site is not utilized for agricultural or timber-harvest operations. According to the California Department of Conservation's Sacramento County Important Farmland 2014 Map, the project site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance); the site is considered Urban and Built-Up Land. In addition, the site is not designated or zoned for agricultural or timber uses, nor is the land under a Williamson Act contract.

Consistent with the conclusions of the Master EIR, the proposed project would not result in impacts to agricultural resources.

Energy

Structures built as part of 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 (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 2035 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 2035 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 required to comply with all applicable regulations related to energy efficiency, including Titles 20 and 24 of the California Code of Regulations, and the applicable policies of the 2035 General Plan. Consistent with the Master EIR, the proposed project would not result in impacts related to energy.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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 northern portion of the project site is developed with a six-story office building, a four-story office building, a single-story service building/fitness center, a single-story child development center, and a five-story parking structure. An outdoor softball field, a basketball court, and a sand volleyball court are located in the northern portion of the site. The southern portion of the project site is vacant and regularly disked for weed control.

Land uses surrounding the project site include various commercial uses to the north, east, and south, as well as a single residence and hotel to the east, a hotel and vacant land to the south. In addition, the Sacramento Regional Transit line borders the site on the west. The City of Sacramento 2035 General Plan designates the site as Employment Center Mid Rise and the site is zoned as General Commercial (C-2). Public views of the project site include views from motorists, bicyclists, and pedestrians travelling on Harvard Street, Arden Way, and Silica Avenue along the project site frontage. In addition, the site is visible from the Swanston Station transit stop located west of the site.

Existing sources of light and glare include, but are not limited to, exterior lighting associated with the existing on-site development, headlights from vehicles travelling within the existing on-site parking areas, and streetlights along Harvard Street and Arden Way. 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 California Environmental Quality Act (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:

[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 May 2018.

- 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
- 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. These potential new sources of light 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. Sensitive land uses would generally be residential uses, especially single-family residential uses.

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 and use designation, introduction of new sources of light and glare to the site has been previously analyzed for the site 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 these 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 proposed project would result in a similar type and intensity of light as

currently exists in previously developed areas adjacent to the project site. The proposed project would comply with all applicable general plan policies related to minimizing light and glare. In addition, the project would be consistent with the type and intensity of use previously anticipated for the site per the 2035 General Plan and analyzed in the Master EIR. Therefore, the proposed project would result in a ***less-than-significant*** impact regarding sources of glare.

Question C

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 "Thresholds 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 provides that the City shall require new development to 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 project site is not located near significant visual resources such as the Sacramento and American Rivers, the State Capitol, or public trails. The nearest public park is Babcock Park, located approximately 0.44-mile east of the project site. Currently, the existing commercial development immediately east of the project site obstructs any view of the site from Babcock Park, thus, existing views from the park would not be altered by the project.

The central and northern portions of the project site are currently developed, and the southern portion of the site is regularly disked. In addition, the site is located within an urban area and is designated Office per the City's General Plan. As such, the site does not contain any scenic resources that would be degraded by the proposed project. The type and intensity of development which is proposed would be visually compatible with the existing commercial and office development in the project area. Furthermore, the proposed project would be consistent with the site's existing land use and zoning designations.

As part of the proposed project, City staff is conducting a site plan and design review. 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, the site plan and design review underway for the proposed project is intended to ensure that the proposed development would not result in a substantial degradation in the existing visual character of the project site.

Based on the above, potential impacts to the visual character of the site and the site's surroundings associated with development of the site with office uses has been previously analyzed in the Master EIR, and the proposed project would result in a ***less-than-significant*** impact.

Mitigation Measures

None required.

Findings

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

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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, 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 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 carbon monoxide (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

[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.

can result from emissions from normal operations as well as accidental releases. Health risks from 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 mobile homes located approximately 350 feet to the northwest of the project site, across the Sacramento Regional Transit railway and the SPRR tracks. In addition, a single-family home is located along Harvard Street, approximately 650 feet to the northeast of the proposed development area. The on-site child development center is currently vacant and, thus, would not be considered a sensitive receptor.

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 Initial Study, 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 Climate Action Plan.

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 toxic air contaminants (TAC) 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 Climate Action Plan (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 Initial Study (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 are designated as 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 in 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 1.

Table 1
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. Available at: http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf. May 2015. Accessed June 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 NO_X and operational ROG and NO_X 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, based on a Transportation Analysis prepared by DKS Associates for the proposed project,[3] default CalEEMod inputs were updated to reflect project details.

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 operate on the project site. Construction exhaust emissions would be generated from construction equipment, demolition of on-site structures, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. These 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 1, 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 2.

Table 2
Maximum Unmitigated Project Construction NO_X Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Threshold of Significance (lbs/day)
NO_X	54.58	85

Source: CalEEMod, August 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 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 the SMAQMD's Basic Construction Emission Control Practices (BCECP). Compliance with SMAQMD rules and regulations and BCECP would ensure that construction emissions are minimized to the extent practicable, and may result in emissions below the level presented in Table 2.

Based on the above, impacts related to the proposed project's construction emissions of NO_X would be ***less than significant***.

[3] DKS Associates. *Transportation Analysis, Harvard Park Corporate Campus, Arden Way and Harvard Street.* January 30, 2018.

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), and mobile sources. Emissions from mobile sources, such as future employee vehicle trips to and from the project site, would make up the majority of the emissions related to project operations. The CalEEMod modeling assumptions have been updated to reflect project-specific information regarding trip generation rates, provided by DKS Associates.

The proposed project's estimated operational emissions are presented in Table 3. 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 a ***less-than-significant*** impact.

Table 3
Maximum Project Operational NO_X and ROG Emissions

Pollutant	Project Emissions (lbs/day)	SMAQMD Thresholds of Significance (lbs/day)
NO_X	13.16	65
ROG	10.05	65

Source: CalEEMod, August 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.

Question D

As the region is designated nonattainment for PM_{10} and $PM_{2.5}$, the SMAQMD has adopted mass emissions thresholds of significance for PM_{10} and $PM_{2.5}$, which are presented in Table 4.

Table 4
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: Sacramento Metropolitan Air Quality Management District. SMAQMD Thresholds of Significance Table. Available at: http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf. May 2015. Accessed June 2018.

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 5. 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 5
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	8.06	80	1.42	14.6
$PM_{2.5}$	12.17	82	2.26	82	0.40	15

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

Therefore, 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***.

Questions E through G

The proposed project would involve construction of an office structure and, thus would not introduce sensitive receptors to the area. The area surrounding the project site has been largely developed with commercial, office, and industrial uses. The nearest sensitive receptors to the site are the mobile homes located approximately 350 feet to the northwest of the project site, across the Sacramento Regional Transit railway and the SPRR tracks. In addition, a single-family home is located along Harvard Street, approximately 650 feet to the northeast of the proposed development area.

The major pollutant concentrations of concern are localized CO emissions 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 contribute to an exceedance of 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 1,805 net new daily vehicle trips, with 293 trips during the AM peak hour and 284 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 diesel particulate matter (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 employees 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 proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, per CalEEMod default assumptions, construction would occur over an approximately 1.5-year period. Grading activities, when emissions would be most intensive, would occur over the period of approximately one month. The exposure period typically analyzed in health risk assessments is 30 years or greater, which is substantially longer than the 1.5-year construction period associated with the proposed project.

The CARB Handbook acknowledges that DPM is a highly dispersive gas, the concentration of which rapidly decreases with distance from the source. The nearest sensitive receptors to the site are the mobile homes located approximately 350 feet to the northwest of the project site. Such receptors are separated from the project site by the intervening Sacramento Regional Transit railway and SPRR tracks. 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. Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

As discussed previously, 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,

[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.

exposure of sensitive receptors to substantial pollutant concentrations would not occur and a ***less-than-significant*** impact would result.

Question H

Emissions from operations of the proposed project were quantified and would equal approximately 2,667.14 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.

Goal LU 1.1 and Policy LU 1.1.5 encourage infill development within existing urbanized areas. Given that the proposed project would be consistent with the site's current land use and zoning designations and the surrounding areas are currently built-out, the project would be consistent with Goal LU 1.1 and Policy LU 1.1.5. 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 off-site pedestrian infrastructure. In addition, the proposed on-site drive aisles and pedestrian walkways would connect with existing development within the northern and central portions of the site. Thus, the proposed project would comply with Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6.

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.

The Master EIR concluded that buildout of the City's General Plan, including the project site, 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 analyzed 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 analyzed. Consequently, the proposed project would result in a ***less-than-significant*** impact.

Mitigation Measures

None required.

Findings

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

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

Environmental Setting

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 outside 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 proposed project site is located within an urbanized area and surrounded by existing development. The northern and central portions of the project site are developed with existing structures, parking areas, and associated improvements. The southern portion of the site has been heavily graded and is generally characterized by nearly level to gently sloping terrain that is regularly disked for weed abatement. The site does not contain any wetlands or other aquatic features. Numerous trees are located along the undeveloped southern portion of the site.

Special-Status Species

Special-status species are plants and animals in the following categories:

- Listed or proposed for listing as threatened or endangered under federal Endangered Species Act (ESA) or candidates for possible future listing (FWS 2013);
- Listed or candidates for listing by the state of California as threatened or endangered under the California Endangered Species Act (CESA);
- Listed as Fully Protected under the California Fish and Game Code;
- Animals identified by CDFW as species of special concern;
- Taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
    - CRPR 1A Plants presumed to be extinct in California;

- CRPR 1B Plants that are rare, threatened, or endangered in California and elsewhere;
- CRPR 2 Plants that are rare, threatened, or endangered in California but more common elsewhere;
- CRPR 3 Plants about which more information is needed (a review list); and
- CRPR 4 Plants of limited distribution (a watch list).

A locally significant species is a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125[c]) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G); or otherwise meets the definition of rare or endangered under CEQA §15380(b) and (d).

A search of the CDFW Natural Diversity Database (CNDDB) was performed for the project site quadrangle as well as the eight surrounding quadrangles (i.e., Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove) to determine which special-status plant and wildlife species are known to occur within the region. Based on the results of the CNDDB query, a total of 23 special-status plant species and 40 special-status wildlife species have been identified within the nine-quadrangle region.

Special-Status Plant Species

Of the 23 special-status plant species identified, all species were eliminated from further consideration due to habitat requirements (i.e., riparian, wetland, and/or forest habitats) which are not present on the project site. In addition, the central and northern portions of the project site are currently developed with buildings, parking areas, and associated improvements, while the southern portion of the site has been graded and is regularly disked to prevent weed growth. Due to the lack of sufficient on-site habitat and the highly disturbed nature of the site, special-status plants are not likely to occur on-site.

Special-Status Wildlife Species

Of the 40 special-status wildlife species identified, 37 species were eliminated from further consideration due to habitat requirements (i.e., aquatic, wetland, forest, and/or coastal habitats) which are not present on the project site. As noted above, portions of the project site are currently developed and the site is characterized by a high level of disturbance. In addition, the project site is located within an urban area and is surrounded by existing development. Nonetheless, the site contains marginal habitat for the remaining three species: burrowing owl, Swainson's hawk, and white-tailed kite.

California Fish and Game Code §3503 protects most birds and their nests. The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) also protects most birds and their nests, including most non-migratory birds in California. Birds protected by the MBTA have the potential to nest in the existing trees located along the southeastern boundary of the project site.

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).
- For the purposes of this document, "special-status" has been defined to include the 23 species of plants and animals identified as special status species under the NBHCP.

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.

The proposed project consists of the construction of an office development. Such uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Common household cleaning products which could contain potentially hazardous chemicals may be used on-site as part of routine maintenance. However, due to the regulations of cleaning 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.

Question B

The proposed project would include subdivision of the 23.3-acre site into three parcels (Lots A, B, and C). The proposed project would not include any modifications to the existing buildings and associated infrastructure located within Lot A. Within Lot B, the existing outdoor recreational facilities and the associated 3,000-sf outbuilding would be demolished as part of the proposed project; the existing improvements within Lot A, including the single-story child development facility, would remain in place. Lots B and C would be developed with office buildings, parking areas, drive aisles, and associated improvements. A new access point would be constructed at the southeastern site boundary. With the exception of vegetation removal required for the new access point, the majority of the existing landscaping along the site's eastern frontage at Harvard Street would not be removed.

Construction of the proposed site access at the southeastern site boundary at Harvard Street could potentially require removal of a small number of existing landscape trees. In addition, all of the landscape trees located to the south of the existing baseball field would be removed.

Special-Status Species

As noted previously, special-status plant species are not likely to occur on-site. Thus, the proposed development would not result in adverse effects to special-status plants. However, the project site contains marginal habitat for burrowing owl, Swainson's hawk, white-tailed kite, and nesting birds protected by the MBTA. Ground-disturbing activities and tree removal associated

with the proposed project could potentially result in adverse effects to such species.

Protected Trees

Within the City of Sacramento, a permit is required to perform regulated work on "City Trees" or "Private Protected Trees" (which includes trees formerly referred to as "Heritage Trees"). City trees are characterized as trees partially or completely located in a City park, on City owned property, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley. Private protected trees are defined as trees designated to have special historical value, special environmental value, or significant community benefit. Private protected trees are:

- All native trees at 12-inch Diameter Standard Height (DSH). Native trees include: Coast, Interior, Valley and Blue Oaks, CA Sycamore and Buckeye.
- All trees at 32-inch DSH with an existing single family or duplex dwelling.
- All trees at 24-inch DSH on undeveloped land or any other type of property such as commercial, industrial, and apartments.

In the event that any of the existing on-site trees are determined to qualify as Private Protected Trees under the above criteria, the project applicant would be required to obtain a Tree Permit from the City prior to tree work/removal pursuant to Chapter 12.56.050 of the City's Municipal Code.

Conclusion
Implementation of the proposed project could have the potential to affect burrowing owl, Swainson's hawk, white-tailed kite, and nesting birds protected by the MBTA. The proposed project would be considered to result in a ***potentially significant*** impact.

Question C

Currently, the northern and central portions of the project site are developed with existing structures, parking areas, and associated improvements. The southern portion of the site has been heavily graded and is generally characterized by nearly level to gently sloping terrain that is regularly disked for weed abatement. The site does not contain any streams, ponds, ditches, or other aquatic features. Thus, the proposed project site does not contain any water features that may be considered to be potentially jurisdictional waters of the U.S. or the State. Consequently, the proposed project would result in a ***less-than-significant*** impact with regard to regulatory waters and wetlands,

Mitigation Measures

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

Western Burrowing Owl

3-1(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.*

3-1(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. 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.*

Raptors and Other Birds Protected by the MBTA or the California Fish and Game Code

3-2 *If tree removal or construction activities on the project site are to begin during the nesting season for raptors or other protected bird species in the region (generally February 15-September 15), a qualified biologist shall be retained by the project*

applicant to conduct pre-construction surveys in areas of suitable nesting habitat for common raptors (including Swainson's hawk) and other bird species protected by the MBTA or California Fish and Game Code located within 500 feet of project activity. Surveys shall be conducted no more than 10 days before tree removal or ground disturbance is expected to occur. The pre-construction surveys shall be submitted to the City's Community Development Department. If active nests are not found, further mitigation is not required. If active nests are found, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. The appropriate buffer size for all nesting birds shall be determined by a qualified biologist, but shall extend at least 50 feet from the nest. Buffer size will vary depending on site-specific conditions, the species of nesting bird, nature of the project activity, the extent of existing disturbance in the area, visibility of the disturbance from the nest site, and other relevant circumstances.

Construction activity shall not occur within the buffer area of an active nest until a qualified biologist confirms that the chicks have fledged and are no longer dependent on the nest, or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. The qualified biologist shall determine the status of the nest at least weekly during the nesting season. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance shall be increased until the agitated behavior ceases.

Findings

All additional significant environmental effects of the proposed project relating to Biological Resources can be mitigated to less-than-significant levels.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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	
C) Adversely affect tribal cultural resources?		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. 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. The American River Riverfront Park, which is approximately 0.85-mile away from the site is the nearest moderate resource area.

Currently, the northern and central portions of the site are developed with existing structures, parking areas, and associated improvements. The southern portion of the site is currently vacant and undeveloped. The entirety of the site, including the vacant southern portion, has been subject to extensive ground disturbance as a result of prior grading activities. The existing on-site structures were developed between 1988 and 1990 and, thus, are not considered historic.

A record search of the California Historic Resources Information System (CHRIS) was conducted to determine whether the project site contains any recorded cultural resources. According to the records search, the proposed project site does not contain any recorded prehistoric-period cultural resources or historic-period cultural resources. Given the extent of known cultural resources and the environmental setting of the site, the potential for prehistoric-period cultural resources to occur on the project site is relatively low.

However, the record noted evidence of the 19th century Rancho del Paso and 20th century buildings within the project vicinity. Given the extent of known cultural resources and known cultural patterns of local history, the potential for historic-period cultural resources to occur on the project site is relatively high.

Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. The Native American Heritage Commission (NAHC) was contacted on September 12, 2017, requesting a search of their Sacred Lands File for traditional cultural resources within or near the project area. The reply from the NAHC states that sacred sites were identified in the project area.

Standards of Significance

For purposes of this Initial Study, 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

Questions A and B

Given the disturbed nature of the project site, surface cultural resources would not likely be found on-site during grading and construction. The CHRIS search conducted for the proposed project determined that the project site is not sensitive for cultural resources. However, unknown resources could be encountered during grading and excavation activities associated with development of the project. Therefore, the proposed project would have a ***potentially significant*** impact related to damaging or destroying prehistoric cultural resources.

Question C

As noted above, the NAHC was contacted on September 12, 2017, requesting a search of their Sacred Lands File for traditional cultural resources within or near the project area. The reply from the NAHC states that sacred sites were identified in the project area. Pursuant to AB 52, the City of Sacramento distributed a project notification letter to all applicable Native American tribes. A response was received from the United Auburn Indian Community (UAIC) of the Auburn

Rancheria requesting to be informed of any cultural resource information related to the project. The tribe did not request to initiate formal consultation.

The mandatory 30-day response period closed on September 7, 2018 and the City did not receive any additional responses. However, given the results of the NAHC sacred lands file search, tribal resources could potentially occur on-site. Therefore, the proposed project could have a ***potentially significant*** impact related to damaging or destroying tribal cultural resources.

Mitigation Measures

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

4-1 ***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. All workers shall sign a sign-in sheet stating they have attended the training. The sign-in sheet shall be submitted to the City's Community Development Department within seven calendar days of completing the training.

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.

4-2 ***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:
iii. Protect the cultural character and integrity of the resource.
iv. Protect the traditional use of the resource.
i. Protect the confidentiality of the resource.
ii. 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.
iii. Rebury the resource in place.
iv. 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.*
- *At the developer's expense, 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.*

4-3 ***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 4-2. 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 project relating to Cultural Resources can be mitigated to less-than-significant levels.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

Environmental Setting

Seismicity

The Sacramento 2035 General Plan Master EIR identifies the City of Sacramento as being subject to potential damage from earthquake groundshaking at a maximum intensity of VIII 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.

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 topography of the project site slopes generally towards the east at a gradient of approximately 0.1 percent, with a range in elevation from 35 to 40 feet above mean sea level (msl). Seismically-induced landslides or landslides induced by soil failure typically occur on slopes with gradients of 30 percent or higher.

Regional Geology

The project site is located within the Great Valley Geomorphic Province. The Great Valley is bordered to the north by the Cascade and the Klamath Ranges, to the west by the Coast Ranges, to the east by the Sierra Nevada Mountain Range, and to the south by the transverse ranges. 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, the shallow subsurface geology has been mapped as Quaternary alluvium consisting of silts, sands, and gravels. The alluvium was deposited by the Sacramento and American rivers.

Project Site Soils

The Natural Resources Conservation Service (NRCS) provides maps and descriptions of soils throughout the United States. According to the NRCS Web Soil Survey conducted for the project site, the site contains the following soil types: San Joaquin-Urban land complex, 0 to 3 percent slopes, and Urban land, and Xerarents-Urban land-San Joaquin complex, 0 to 5 percent slopes.

Standards of Significance

For the purposes of this Initial Study, 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

The following discussions provide a summary of geologic hazards and soil hazards associated with the proposed project site.

Geologic Hazards

As discussed above in the Environmental Setting section, the proposed project site is not located on or in the vicinity of an Alquist-Priolo Fault Zone and is in an area of the City of Sacramento that is topographically flat. As such, the potential for fault rupture on the proposed project site is considered to be low. In addition, given that the site is relatively flat and is not located adjacent to any steep slopes, 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. According to the NRCS, soils at the project site include San Joaquin-Urban land complex, 0 to 3 percent slopes, Urban land, and Xerarents-Urban land-San Joaquin complex, 0 to 5 percent slopes. All three soil types have moderately well-drained to well-drained characteristics. The proposed project site is not located within a State-Designated Seismic Hazard Zone for liquefaction, nor are the known soil types on the project site susceptible to liquefaction. Based on the nature of the underlying soils, the historic seismicity in the area, and the relatively flat topography of the project site, the potential for liquefaction during a seismic event is relatively low.

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.

It should further be noted that as part of the building permit process, a Geotechnical Investigation is required to be submitted with the building permit application and implemented via the building plan review process prior to issuance of the building permit. The Geotechnical Investigation would include site-specific recommendations for general construction procedures; site clearing; site preparation and sub-excavation; engineered fill construction; utility trench backfill; foundation design; interior floor slab support; floor slab moisture penetration resistance; exterior flatwork; pavement design; construction testing and observation; and review of final plans and specifications to ensure that the recommendations within the investigation are implemented as part of the proposed project.

Consistent with the conclusions of the Master EIR, implementation of the Sacramento City Code, which requires preparation and implementation of a site-specific Geotechnical Investigation and compliance with the CBSC would ensure that the proposed project would include protections against possible seismic hazards.

Soil Hazards

The proposed project would be required to be consistent with the City of Sacramento 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 CBSC 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.

The proposed project would require grading and excavation during the construction period and would, therefore, require a Grading and Erosion and Sediment Control Plan to be submitted and approved per Chapter 15.88 of the City's Municipal Code. Chapter 15.88 of the Municipal Code (Grading and Erosion and Sediment Control) is used to regulate grading on property within the City of Sacramento to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated by surface runoff from construction activities; to comply with the City's National Pollution Discharge Elimination

System (NPDES) Permit; and, to ensure graded sites within the City comply with all applicable City standards and ordinances.

As discussed previously, a Geotechnical Investigation would be required prior to implementation of the proposed project. The Geotechnical Investigation would include a description of existing soil conditions, identification of any potential building hazards related to existing soil conditions, and recommendation of methods to reduce such hazards in compliance with the requirements of the CBSC and Chapter 15.88 of the City's Municipal Code.

The proposed project would not include the use of septic tanks or alternative wastewater disposal systems; therefore, impacts would not occur due to inadequate soils being able to support such wastewater storage/disposal systems.

Conclusion

The proposed office building development is consistent with the City's 2035 General Plan. 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, construction of the two proposed office buildings and associated improvements would not commence without protection against potential seismic or soil hazards and, as such, the project would result in a ***less-than-significant*** impact.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant environmental effects relating to Geology and Soils.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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 Hazardous Materials (HazMat) Program teams at fire stations in the project region; Truck 5 is stationed in Downtown at 8th and Broadway, and Truck 20 is stationed 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.

A Phase I Environmental Site Assessment (ESA) was prepared for the proposed project site by BA Environmental to determine whether the site contains any recognized environmental conditions (RECs).[6] The Phase I ESA did not identify any RECs associated with the project site. The existing 3,000-sfoutbuilding associated with the outdoor recreation facilities, which would be demolished as part of the proposed project, was not found to include any asbestos-containing materials or lead-based paint. In addition, the Phase I ESA included a vapor encroachment screen (VES) to assess the potential for vapor encroachment at the site due to on- or off-site contaminated soils or groundwater. Per the VES, vapor encroachment conditions do not exist at the project site.

Standards of Significance

For the purposes of this Initial Study, 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

[6] BA Environmental. *Phase I Environmental Site Assessment of 2241 & 2251 Harvard Street, Sacramento, California.* July 2016.

- 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

Questions A through C

The proposed project would not include any modifications to the existing buildings and associated infrastructure located within the northern portion of the site. Within the central portion of the site (Lot B), the existing 3,000-sf outbuilding and the outdoor recreational facilities would be demolished as part of the proposed project; the existing improvements within Lot A, including the single-story child development facility, would remain in place. Lot B would be developed with a four-story, 145,000-sf office building (Building B) to the west of the child development facility. To the south, Lot A would be developed with a three story, 108,750-sf office building. Overall, the proposed project would include disturbance of approximately 9.79 acres within the 23.3-acre project site.

Per the Phase I ESA, the project site is not included on a list of hazardous materials sites compiled by the County pursuant to Government Code 65962.5. As noted previously, the Phase I ESA did not identify any RECs associated with the project site. The existing 3,000-sf outbuilding associated with the outdoor recreation facilities, which would be demolished as part of the proposed project, was not found to include any asbestos-containing materials or lead-based paint. In addition, according to mapping prepared by the California Geological Survey, the only area within Sacramento County that is likely to contain naturally occurring asbestos (NOA) is eastern Sacramento County; thus, the project site is not located in an area identified as likely to contain NOA.[7] Per the Phase I ESA, a subsurface investigation conducted approximately 0.14-mile to the west of the project site revealed groundwater at depths ranging from approximately 50 feet below ground surface (bgs) to 62 feet bgs; thus, construction activities associated with the proposed project would not require dewatering.

Based on the above, construction workers or other sensitive receptors are not anticipated to be impacted by hazardous materials released during project construction activities. Thus, the proposed project would result in a ***less-than-significant*** impact related to contaminated soils, asbestos, and contaminated groundwater.

Mitigation Measures

None required.

[7] Department of Conservation, California Geological Survey. *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California*. 2006.

Findings

The proposed project would not result in any significant environmental effects related to Hazards.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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 highly developed area of Sacramento. Currently, the northern and central portions of the site are developed with parking areas, buildings, sidewalks, and other impervious surfaces. The southern portion of the site is vacant and undeveloped. The developed areas of the site contain existing storm drainage infrastructure that flows to the City's storm drain mains in Silica Avenue and Harvard Street.

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 06067C0181H AND 06067C0177J*[8] as being located within an area designated as Zone X, which is applied to areas determined to be outside the 0.2 percent annual chance floodplain. FEMA does not have building regulations for development in areas designated Zone X and would not require mandatory flood insurance for structures in Zone X.

[8] Federal Emergency Management Agency. *Flood Insurance Rate Map Community Panel Number 06067C0181H*. August 30, 2017.

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 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 project is within the service area of the Sacramento Area Sewer District (SASD). New connections within the SASD service area are subject to sewer impact fees, which are used to recover a share of SASD's cost for any new system facilities necessary to service new connections.[9] In addition to sewer service provided by SASD, the project would also be within the Sacramento Regional County Sanitation District (SRCSD). In order to connect with the SRCSD wastewater conveyance and treatment system, developers must pay impact fees.

Standards of Significance

For purposes of this Initial Study, 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 MEIR:

- 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.

[9] Sacramento Area Sewer District. *Sewer Ordinance SDI-0072*. Effective May 27, 2016.

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 State Water Resources Control Board (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 2009- 0009-DWQ. Construction activity subject to the permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. The proposed project would include disturbance of approximately 9.79 acres within the 23.3-acre project site; thus, the project would be subject to the aforementioned regulations.

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

Per the Conceptual Water Quality Plan prepared for the proposed project, the project site would be divided into seven drainage management areas (DMAs) (see Figure 7). DMA 7 would include a 12.32-acre area within the northern portion of the site which has been subject to previous development, while DMAs 1 through 6 would include areas where new impervious surfaces are proposed.

Stormwater runoff from impervious areas created within DMAs 1 through 6 as part of the proposed project would sheet flow to Low Impact Development (LID) features in the form of pervious pavement within the proposed parking areas. Stormwater entering the pervious pavement would infiltrate through underlying layers of sand, gravel, and filter fabric, which would filter out pollutants and provide for detention of flows. The pervious pavement areas would be underlain with a series of eight-inch and 12-inch perforated pipes that would route treated runoff to the existing 42-inch storm drain located within Silica Avenue to the north of the site and the existing 12-inch storm

drain located within Harvard Street to the east of the site. Table 6 below provides a summary of the total impervious areas and pervious pavement proposed for each of the DMAs.

Table 6
Proposed DMAs

DMA	Acreage	Proposed Impervious Area (sf)	Proposed Pervious Pavement (sf)
1	1.56	38,584	12,205
2	1.88	54,420	15,006
3	0.81	25,313	4,798
4	3.58	94,795	37,661
5	0.80	22,523	6,974
6	1.16	30,344	9,927
7	13.32	Untreated (Existing Development)	
Total:	**23.11**	**265,979**	**86,571**

Note: DMA acreages are approximate.

It should be noted that additional stormwater treatment measures (i.e., vegetated swales, bio-retention basins, etc.) would be provided on-site as necessary to meet the detention and water quality requirements applicable to the project. Any stormwater treatment measures would be required to comply with the latest edition of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*.

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 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 treatment and detention of all runoff water from DMAs 1 through 6; therefore, discharge of polluted runoff to surface waters or groundwater would not result from the proposed project. Furthermore, the proposed project would comply with LID treatment requirements associated with the City's MS4 permit. Thus, a ***less-than-significant*** impact would occur 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 development of the proposed project.

Question B

As described above, the project site is not located within a 100-year flood hazard area. As such, the proposed project would not place housing or structures within a 100-year flood hazard area

and would not expose people or property to the risk of injury or damage in the event of a 100-year flood. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant environmental effects related to Hydrology and Water Quality.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

The following provides a summary of the existing noise and vibration environment at the proposed project site.

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}.

Currently, the noise environment at the project site is primarily defined by vehicle traffic on Harvard Street and Arden Way, as well as train noise associated with the Regional Transit light rail tracks and the SPRR tracks located to the west of the site.

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 primary source of groundborne vibration at the project site is train traffic associated with the Regional Transit light rail tracks and the SPRR tracks located to the west of the site.

Standards of Significance

For purposes of this Initial Study, 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

Questions A and B

The proposed project would not include any modifications to the existing buildings and associated infrastructure located within the northern portion of the site (Lot A). Within the central portion of the site, the existing the outdoor recreational facilities and the associated 3,000-sf outbuilding would be demolished as part of the proposed project; the existing improvements within Lot A, including the single-story child development facility, would remain in place. The proposed project would include development of two new office buildings, parking areas, and associated improvements within the southern portion of the site.

Currently, surrounding development in the project area includes the following: various commercial business, an automotive repair shop, and an equipment yard to the north; commercial offices,

auto sales lots, a single-family residence, and Hilton Hotel to the east; commercial offices, Extended Stay America Hotel and vacant land to the south; and Swanston Station and the Sacramento Regional Transit rail line to the west. The single-family residence is located southeast of the Silica Avenue/Harvard Street intersection, across from the existing office buildings at the northeastern portion of the project site.

Operations associated with office developments do not typically include substantial on-site sources of operational noise. However, as discussed in Section 11, Transportation and Circulation, of this Initial Study, the proposed project would generate an additional 1,805 average daily vehicle trips beyond the vehicle trip generation associated with existing on-site uses. Thus, the project could result in an increase in traffic noise levels on area roadways. Based on the anticipated vehicle trip distribution, traffic noise increases would occur primarily on the roadways south of the project site.

Buildout of the project site with office uses 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. The type and intensity of uses proposed would be consistent with the existing office uses within the northern portion of the site, as well as the office and commercial uses in the surrounding vicinity. With the exception of the mobile homes located northwest of the site and the single-family residence located to the east of the site, the project site is not located within the vicinity of any residential development. Because traffic noise increases would occur primarily on Arden Way and Harvard Street to the south of the project site, noise level increases at the single-family residence and the mobile residences would be limited. 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, and a ***less-than-significant*** impact would occur.

Question C

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels generated by project construction would typically range from about 76 to 90 dBA at a distance of 50 feet from the noise source. Construction-generated noise levels drop off substantially as the distance between the source and receptor increases. The nearest noise-sensitive receptors to the site are the mobile homes located approximately 350 feet to the northwest of the project site. Such receptors are separated from the site by the intervening Sacramento Regional Transit railway and the SPRR tracks paralleling the site's western boundary. In addition, construction activities closest to the mobile homes would be limited to minor changes to the existing on-site parking lot within the northwestern portion of the site. Thus, construction noise at the mobile homes would occur over a relatively short period of time and would not be considered excessive.

Construction noise would be generated during the period of construction. The City Code regulates noise, and provides that construction noise during specified hours would be exempt from such controls (Title 8 – Health and Safety, Chapter 8.68 of the City Code). Construction operations that

occur between 7:00 AM and 6:00 PM, Monday through Saturday and between 9:00 AM and 6:00 PM on Sundays are exempt from the applicable noise standards, provided that pieces of equipment with combustion engines are equipped with suitable exhaust and intake silencers are in good working order. Therefore, the proposed project would not result in a substantial increase in ambient noise levels in the project vicinity due to construction, and a ***less-than-significant*** impact would occur.

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.[10] 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 grading, placement of infrastructure, paving, 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

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 off-site structure is the Extended Stay America Hotel, located approximately 125 feet southeast of the site across Harvard Street. The nearest existing residences relative to the project site are the mobile homes located approximately 350 feet to the northwest of the site, across the Sacramento Regional Transit railway and the SPRR tracks. In addition, a single-family home is located along Harvard Street, approximately 650 feet to the northeast of the proposed development area. Given the anticipated on-site vibration intensity and the considerable distances to the nearest off-site buildings, 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.

[10] California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. September 2013.

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***.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant impacts related to Noise.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

The project site is located in Sacramento and is served with fire protection and police protection facilities by the City of Sacramento.

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. The nearest fire station is Station 19, located at 1700 Challenge Way, approximately 0.89 mile southeast of the project site. According to the General Plan Master EIR, the SFD requires a ratio of one fire station per 16,000 residents.

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 William J. Kinney Police Facility located at 3550 Marysville Boulevard. 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.

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 Master EIR discusses the potential for impacts to public services as a result of increased development and population in the City of Sacramento. The Master EIR analyzes the 2035 General Plan policies related to law enforcement service, fire protection service, educational service, and library service, to determine if adequate public services will exist as development and population in the City increases. Individual projects developed in the City of Sacramento would be required to comply with the public service policies presented in the 2035 General Plan.

According to the Master EIR, implementation of the 2035 General Plan public service policies by individual projects would ensure that adequate public services are available in the City of Sacramento as development and population increases. The project would be consistent with the type of development anticipated for the site in the 2035 General Plan, and implementation of the project would be expected to generate similar impacts to public services.

Therefore, based on the analysis in the Master EIR, the proposed project would not impact public services nor would the proposed project require the development of new public service facilities beyond what was anticipated in the 2035 General Plan.

Fire Protection

The proposed project would include development of a three-story office building and a four-story office building with construction of a parking lot on a 21.86-acre site with existing development. Four fire stations are located in the vicinity of the proposed project site. The proposed project would be served by SFD Station 19, located approximately 0.89 mile southeast of the project site, SFD Station 17, located approximately 2.68 miles north of the project site, SFD Station 15, located approximately 3.12 miles west of the project site, and SFD Station 18, located approximately 3.46 miles northwest of the project site.

The General Plan Master EIR concluded that at full buildout of the General Plan, including the proposed project site, the City would be required to provide approximately 12 new fire stations and additional fire personnel to accommodate increases in demand for fire protection services. The Master EIR does not identify any planned fire stations in the project area. Therefore, impacts to fire service from the proposed project have already been anticipated by the 2035 General Plan and analyzed in the Master EIR. Furthermore, the proposed project would be required to comply with all applicable regulations related to the provision of fire protection features. Given that the project site is located in an urban area and the City has previously anticipated provision of fire protection services to the site, the SFD would be capable of providing fire protection services to the project site with existing facilities.

Police Protection

The project area is currently served by the Sacramento Police Department. Given that the project site is located within an urban area and the proposed project would be consistent with site's current General Plan land use designation, buildout of the site and associated demand for police protection services has been analyzed in the Master EIR and anticipated by the City. In addition, the project applicant would be required to pay applicable development fees to fund Sacramento Police Department services in the project area. Thus, the Sacramento Police Department would be capable of providing police protection services to the project site with existing facilities.

Schools and Other Government Services

The proposed project would not include development of any residential uses. In addition, buildout of the project site with the proposed office uses has been previously anticipated per the 2035 General Plan and associated demand for government services was analyzed in the Master EIR. Furthermore, the proposed project would be subject to payment of school impact fees. The school impact fees are used to fund the construction or reconstruction of school facilities within the district for which the fees are collected. With payment of applicable development impact fees, the proposed project would not result in additional demand for school services or other government services beyond what has been anticipated for the site in the 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 or other governmental services would not occur beyond what was anticipated in the 2035 General Plan. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measures

None required.

Findings

The project would not result in any significant environmental effects related to Public Services.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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 Parks and Recreation Department 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. The park nearest to the proposed project site is Babcock Park, located approximately 0.44-mile east of the project site.

Standards of Significance

For purposes of this Initial Study Checklist, 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 proposed project would not include residential development and, thus, would not increase use of existing parks or demand for parks or other recreational facilities. While the project would include the removal of existing on-site recreational facilities, such facilities are not available for public use and removal of such facilities does not constitute a loss of public recreational facilities. Furthermore, the project would be subject to payment of development impact fees used to fund construction of future parks and recreation facilities. Therefore, the proposed project would not accelerate substantial deterioration of existing parks and recreational facilities, nor would the project require the construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant environmental effects related to Recreation.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

The following discussion is based on a Transportation Analysis prepared for the proposed project by DKS Associates.[11]

Environmental Setting

The existing roadway, bicycle, pedestrian, and transit systems within the study area are described below.

[11] DKS Associates. *Transportation Analysis, Harvard Park Corporate Campus, Arden Way and Harvard Street.* January 30, 2018.

Roadways

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

- **Arden Way** is an east-west arterial that provides access to I-80B and SR 160 via a full interchange. To the west, Arden Way continues across North Sacramento to the Arden – Garden connector. The Arden – Garden Connector provides access to Garden Highway and South Natomas. To the east, Arden Way extends across the Arden – Arcade and Carmichael areas of unincorporated Sacramento County to McClaren Drive. Near the project site, Arden Way has two to four through travel lanes in each direction with traffic signals at major intersections, including its intersection with Harvard Street.
- **Harvard Street** is a north-south minor collector. It begins at Arden Way, and extends northerly to El Camino Avenue. Harvard Street continues under El Camino Avenue, where it becomes Auburn Boulevard. Harvard Street has two through travel lanes in each direction from Arden Way to about 700 feet south of Silica Avenue, where the roadway continues northerly with one travel lane in each direction. The intersection with Silica Avenue is controlled with an all-way stop. Opposite Harvard Park, Harvard Street provides access to numerous commercial, office, and hotel properties.
- **Silica Avenue** is an east-west two lane local street. In the site vicinity, Silica Avenue begins at a cul-de-sac bulb at the Union Pacific Railroad tracks and continues easterly to Princeton Street. On-street parking is provided along much of Silica Avenue.
- **Blumenfeld Drive** is a two-lane north-south minor collector that extends southerly from the intersection of Arden Way and Harvard Street. Blumenfeld Drive primarily provides access to an industrial area (Erikson Industrial Park).

Study Intersections

The following study intersections were evaluated in the Transportation Analysis:

1. Harvard Street/Blumenfeld Drive & Arden Way;
2. Harvard Street & Extended Stay America Driveway;
3. Harvard Street & Progressive Insurance Driveway;
4. Harvard Street & California Plaza Driveway/Harvard Park Corporate Center Driveway;
5. Harvard Street & Harvard Park Corporate Center Driveway;
6. Harvard Street & Silica Avenue;
7. Harvard Park Corporate Center Loading Dock Driveway & Silica Avenue;
8. Harvard Park Corporate Center Parking Garage & Silica Avenue; and
9. Harvard Park Corporate Center Driveway & Silica Avenue.

Pedestrian and Bicycle Infrastructure

Currently, pedestrian sidewalks are located along the entire site frontage on Arden Way, Harvard Street, and Silica Avenue. Crosswalks are provided at the signalized intersection of Arden Way with Harvard Street/Blumenfeld Drive. Along Arden Way west of Harvard Street, sidewalks are provided along both side of the street, including the bridge over the Union Pacific Railroad and Sacramento Regional Transit (RT) light rail tracks. East of Harvard Street, a sidewalk exists only on the south side of the street.

Pedestrian infrastructure along Arden Way through the SR 160/I-80B interchange includes two ramp crossings and a crossing of Arden Way. Along Harvard Street, sidewalks do not exist north of Silica Avenue. Sidewalks do not exist on the east side of Harvard Street for the first 425 feet south of Silica Avenue. Along Silica Avenue in the site vicinity, sidewalks are limited to the site

frontage west of Harvard Street. Sidewalks are not provided along Blumenfeld Drive south of Harvard Street.

Bike lanes are provided along the following roadways in the project vicinity:

- Harvard Street from Arden Way to Auburn Boulevard;
- Auburn Boulevard north of Harvard Street;
- Arden Way west of the bridge over the Union Pacific Railroad and Regional Transit light rail tracks; and
- Blumenfeld Drive south of Arden Way.

Transit Infrastructure

Transit service in the project area is provided by Sacramento Regional Transit. Bus routes 22 and 23 operate along Arden Way. A westbound bus stop is located west of Harvard Way, and an eastbound bus stop is located east of Harvard Way. Regional Transit Route 22 (Arden) continues westerly along Arden Way to the Royal Oaks and Arden/Del Paso light rail stations. To the east, service is provided to Arden Fair Mall. The route then continues on Arden Way through Arden-Arcade to Morse Avenue, Kaiser Hospital, and Country Club Plaza.

To the west, Route 23 (El Camino) continues on Arden Way to the Royal Oaks and Arden/Del Paso light rail stations. To the east, service is provided to Arden Fair Mall. The route then travels to El Camino Avenue via Ethan Way, extending through Arden-Arcade and Carmichael to Country Club Plaza, Citrus Heights, and the Sunrise Mall Transit Center. Regional Transit's Blue Line light rail service parallels the Union Pacific Railroad tracks to the west of the project site.

The nearest light rail stops are the Swanston Station and the Royal Oaks Station located west of the site. As noted above, Routes 22 and 23 provide access to the Blue Line light rail stations at Royal Oaks and Arden/Del Paso. The walking distance to the Swanston Station or the Royal Oaks Station from the project site is approximately 0.8-mile.

Standards of Significance

For purposes of this Initial Study, 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 MEIR:

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 and distribution, Existing Plus Project LOS, and issues related to queuing at the project access points.

Project Trip Generation and Distribution

In order to determine the effects of the proposed development on local roadway facilities, the Transportation Analysis included estimates of the trip generation associated with the existing on-site uses, as well as the two proposed office buildings.

DKA Associates conducted counts of existing traffic volumes during the AM and PM peak hours to determine actual vehicle trip generation associated with the existing on-site development. The traffic counts were then compared to the ITE estimates for the existing occupied office space. During both the AM and PM peak hours, the traffic counts were slightly lower than the ITE estimates; nonetheless, the counted values were within the range of expected trip generation. While the existing trip generation is lower than the ITE estimates, higher ITE values (equations) were retained for the project growth, as the future tenants are unknown, and may exhibit a more typical number of vehicle trips.

Table 8 below summarizes the estimated trip generation associated with the existing and proposed site uses. As shown in the table, the growth in trip generation (new project trips for Buildings A and B) is estimated to be 1,805 daily trips, with 293 trips during the AM peak hour, and 284 trips during the PM peak hour. The total project trip generation (existing counts plus net new trips) is estimated to be 4,045 daily trips, with 614 AM peak hour trips and 609 PM peak hour trips.

Table 8
Project Trip Generation

Project Segment	Size (sf)	Trips						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
1. Counts of Existing Occupied Space	280,859	2,240*	304	17	321	25	300	325
2. ITE Estimate of Existing Occupied Space	280,859	2,878	385	52	437	67	326	393
3. Percentage Difference		-22%	-21%	-67%	-27%	-63%	-8%	-17%
4. ITE Estimate of Existing Space	291,270	2,958	396	54	450	69	336	405
5. ITE Estimate of Total Proposed Space	545,020	4,763	654	89	743	117	572	689
6. Net New Project Trips (Line 5 minus Line 4)		**1,805**	**258**	**35**	**293**	**48**	**236**	**284**
7. Existing Counts Plus Net New Trips (Line 1 plus Line 6)		4,045	562	52	614	73	536	609

* Estimated from AM and PM peak hour counts.

Source: DKA Associates, 2018.

The distribution of trips associated with the proposed project was derived from the regional SACSIM travel model, observations of travel patterns near the site, and knowledge of the proposed access locations associated with the site. Trip distribution varies by time of day and direction of travel.

Existing Plus Project Intersection LOS

For the Existing Plus Project conditions, net new trips associated with the proposed development 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 which would exceed the City's five-second threshold.

Vehicle Queuing

The proposed project would include construction of a new access driveway located approximately 350 feet north of Arden Way along Harvard Street. As shown in Table 9, the signalized intersection of Harvard Street/Blumenfeld Drive with Arden Way operates at LOS E during the AM and PM peak hours both without and with the project. Currently, the operating condition results in substantial delays and queuing for southbound Harvard Street traffic. With the addition of project traffic, such queues would extend back to the primary access to the Harvard Street & California Plaza Driveway/Harvard Park Corporate Center Driveway. The anticipated queue lengths could inhibit left turn entry and all exiting from the proposed driveway at Harvard Street and could impede northbound traffic through Harvard Street. Therefore, per the Transportation Analysis, modification or elimination of the proposed new driveway would be required.

Conclusion

Based on the above, the proposed project would not conflict with the City's established minimum LOS policies under Existing Plus Project conditions. However, queueing at the Harvard Street/Blumenfeld Drive & Arden Way intersection could inhibit site access. Therefore, the proposed project could have a ***potentially significant*** impact related to study intersection operations.

Questions D through F

Per the Transportation Analysis, the proposed project would not modify or impede any existing or planned transit facilities/routes, bicycle facilities, or pedestrian facilities. The existing Class II bike lanes on Harvard Street between Arden Way and Auburn Boulevard would remain in place and would provide convenient access to future employees and patrons of the proposed office development. In addition, the project would provide for frontage improvements to the satisfaction of the Department of Public Works.

Considering that the proposed project would not result in a project-specific impact related to transit services or bicycle and pedestrian facilities, the proposed project would result in a ***less-than-significant*** impact.

Mitigation Measures

Implementation of the following mitigation measure would reduce impacts related to Transportation and Circulation to a *less-than-significant* level. Per the Transportation Analysis prepared for the project, neither of the access alternatives presented below would result in secondary impacts related to intersection LOS.

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. Harvard Street/Blumenfeld Drive & Arden Way;	64.9	E	71.4	E	68.3	E	76.1	E
2. Harvard Street & Extended Stay America Driveway;	0.3	A	0.4	A	2.2	A	2.1	A
• Northbound Left Turn	-	-	-	-	10.1	B	8.5	A
• Southbound Left Turn	8.3	A	8.2	A	8.3	A	8.2	A
• Eastbound Right Turn	-	-	-	-	11.1	B	11.0	B
• Westbound	13.6	B	12.1	B	33.1	D	19.0	C
3. Harvard Street & Progressive Insurance Driveway;	0.0	A	0.0	A	0.0	A	0.0	A
• Westbound	9.6	A	9.5	A	9.6	A	9.5	A
4. Harvard Street & California Plaza Driveway/Harvard Park Corporate Center Driveway;	1.6	A	3.1	A	1.6	A	3.4	A
• Northbound Left Turn	9.4	A	8.0	A	9.8	A	8.0	A
• Southbound Left Turn	8.1	A	8.2	A	8.1	A	8.2	A
• Eastbound	10.5	B	10.2	B	14.2	B	11.8	B
• Westbound Left Turn	25.0	D	19.1	C	26.6	D	19.4	C
• Westbound Through/Right Turn	9.3	A	9.7	A	9.3	A	9.7	A
5. Harvard Street & Harvard Park Corporate Center Driveway;	0.7	A	0.4	A	0.2	A	0.4	A
• Northbound Left Turn	9.1	A	7.9	A	9.4	A	7.9	A
• Eastbound	17.2	C	11.6	B	15.3	C	11.8	B
6. Harvard Street & Silica Avenue;	25.4	D	11.2	B	43.7	E	12.7	B
7. Harvard Park Corporate Center Loading Dock Driveway & Silica Avenue;	0.0	A	0.1	A	0.0	A	0.1	A
• Northbound	0.0	A	0.0	A	0.0	A	0.0	A
• Westbound Left Turn	0.0	A	7.7	A	7.2	A	7.8	A
8. Harvard Park Corporate Center Parking Garage & Silica Avenue; and	7.3	A	9.0	A	6.5	A	7.1	A
• Northbound	8.3	A	9.1	A	8.3	A	9.6	A
• Westbound Left Turn	7.5	A	7.2	A	7.5	A	7.4	A
9. Harvard Park Corporate Center Driveway & Silica Avenue.	No Control Delay							

Note: Delay presented in seconds. For unsignalized intersections, impact threshold is based on intersection average.

Source: DKS Associates, 2018.

11-1 *Prior to Improvement Plan approval by the City's Engineering Services Division, Improvement Plans shall show that the proposed new driveway (Intersection 2) shall be eliminated. Alternatively, the proposed new driveway (Intersection 2) may be relocated to approximately 250 feet from Arden Way such that the existing Harvard Street median prohibits left turn entering and exiting movements at the driveway. In addition, the existing driveway at Intersection 4 (opposite California Plaza) shall be realigned to eliminate the existing offset from the California Plaza driveway. The Intersection 4 access shall provide for one inbound lane and two outbound lanes – one for left turns, and one for through movements/right turns.*

Findings

All additional significant environmental effects of the proposed project relating to Transportation and Circulation can be mitigated to less-than-significant levels.

Issues:	Potentially Significant Impact	Less-Than-Significant Impact With Mitigation Incorporated	Less-Than-Significant Impact
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

Wastewater collection and treatment services for the proposed project would be provided by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD). Wastewater generated from the project area is collected in the SASD system through a series of sewer pipes and pump stations. Once collected in the SASD system, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWWTP) located near Elk Grove. The City's Department of Utilities is responsible for providing and maintain water, sewer collection, storm drainage, and flood control services for residents and businesses within city limits.

The proposed project site would include construction of six-inch sanitary sewer lines within the project site that would connect to an existing eight-inch sewer line within the southeastern portion of the site. The existing eight-inch sewer line flows to a 24-inch sewer line located within Harvard Street along the site's eastern boundary (see Figure 5 and Figure 6).

Water Supply Service

The City of Sacramento uses surface water from the Sacramento and American rivers to meet the majority of its 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. According to the 2017 Water Quality Report for the City of Sacramento Municipal Water System, there are no MCL violations, and the drinking water supplied by this municipal supplier meets all drinking water standards.[12]

The City of Sacramento would continue to supply water to the proposed buildings. Within the southern portion of the site, which is currently vacant and undeveloped, the proposed project would extend new eight-inch minimum water lines westward from the City's existing 12-inch water main located in Harvard Drive (see Figure 5 and Figure 6).

[12] Sacramento Suburban Water District. *Consumer Confidence Report 2017*. 2017.

Solid Waste Service

The City of Sacramento does not provide commercial solid waste collection services. Rather, commercial garbage, recycling, and 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 lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area until the year 2065.

Solid waste collected at commercial/industrial uses in the area is currently disposed of at the Kiefer Landfill. Any waste currently generated at the project site associated with the existing use is disposed of at the Kiefer Landfill.

Standards of Significance

For the purposes of this Initial Study, 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).

Answers to Checklist Questions

Questions A and B

The following provides a summary of issues related to wastewater, water supply, and solid waste.

Wastewater

The proposed project would be provided wastewater collection and treatment services by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District

(SRCSD). Wastewater generated in the project area is collected in the SASD system through a series of sewer pipes and pump stations. Once collected in the SASD system, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to the Sacramento Regional Wastewater Treatment Plant. The proposed project site would include construction of six-inch sanitary sewer lines within the project site that would connect to an existing eight-inch sewer line within the southeastern portion of the site. The existing eight-inch sewer line flows to a 24-inch sewer line located within Harvard Street along the site's eastern boundary (see Figure 5 and Figure 6). 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 SASD is responsible for sewer collection in the project area. Buildout capacity of the entire SASD service area was anticipated in the 2018 Sewer System Management Plan (SSMP).[13] As such, SASD has anticipated the need for wastewater services in the project area and requires development impact fees to support buildout demand of their service area (including the proposed project site). SASD's pipelines eventually flow to the SRCSD, where wastewater is treated. 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 service 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. According to the City's Urban Water Management Plan, under all drought conditions, the City possesses sufficient water supply entitlements to meet the demands of the City's customers up to the year 2035.[14] As such, 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

As noted previously, solid waste generated by existing on-site uses and surrounding developments is currently 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 associated with development of the site 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.

[13] Sacramento Area Sewer District. *Sewer System Management Plan.* June 8, 2018.
[14] City of Sacramento. *2010 Urban Water Management Plan* [pg. 5-22]. October 2011.

Mitigation Measures

None required.

Findings

The proposed project would not result in any significant environmental effects related to Utilities and Service Systems.

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
13. 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

Implementation of the proposed project would have the potential to adversely impact sensitive natural communities, special-status animals and previously undiscovered cultural resources and/or human remains. 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***.

Question B

The proposed project is consistent with the project site's current 2035 General Plan land use designation; thus, development of the project was anticipated by the City per the 2035 General Plan and 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 a ***less-than-significant*** impact would occur.

Question C

Implementation of the proposed project could result in temporary impacts related to biological resources and cultural resources during the construction period. In addition, a potentially significant could occur related to queuing issues at the proposed new access driveway. The 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***.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

SECTION V - DETERMINATION

On the basis of the initial study:

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

10/5/2018
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 Initial Study 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 Initial Study:

1. BA Environmental. *Phase I Environmental Site Assessment of 2241 & 2251 Harvard Street, Sacramento, California.* July 2016.

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

3. 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.

4. California Department of Conservation Division of Land Resource Protection Farmland Mapping and Monitoring Program. *Sacramento County Important Farmland Map*. 2016.

5. 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 May 2018.

6. California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. September 2013.

7. City of Sacramento. *Sacramento 2030 General Plan Draft Master EIR*. August 2014.

8. City of Sacramento. *Sacramento 2035 General Plan*. Adopted on March 3, 2015.

9. City of Sacramento. *Wastewater Services and Rates*. Available at: http://www.cityofsacramento.org/Utilities/Services/Wastewater-Service. Accessed August 2018.

10. City of Sacramento. *Zoning Code.* Current through August 2018.

11. Department of Conservation, California Geological Survey. *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California*. 2006.

12. DKS Associates. *Transportation Analysis, Harvard Park Corporate Campus, Arden Way and Harvard Street.* January 30, 2018.

13. Federal Emergency Management Agency. *Flood Insurance Rate Map Community Panel Number 06067C0181H*. August 30, 2017.

14. Sacramento Area Sewer District. *Current Impact Fees.* Available at: http://www.sacsewer.com/general-information/current-impact-fees. Accessed August 2018.

15. Sacramento Area Sewer District. *Sewer Ordinance SDI-0072*. Effective May 27, 2016.

16. Sacramento Area Sewer District. *Sewer System Capacity Plan 2010 Update*. November 2011.

17. Sacramento Area Sewer District. *Sewer System Management Plan*. June 8, 2018.

18. Sacramento Metropolitan Air Quality Management District. *Air Quality Pollutants and Standards*. Available at: http://www.airquality.org/Air-Quality-Health/Air-Quality-Pollutants-and-Standards. Accessed June 2018.

19. 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.

20. Sacramento Suburban Water District. *Consumer Confidence Report 2017*. 2017.

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

APPENDIX A
CALEEMOD MODELING RESULTS

Harvard Park

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	253.75	1000sqft	5.83	253,750.00	0
Parking Lot	938.00	Space	8.44	375,200.00	0

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)	429.16	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on SMUD's progress towards RPS

Land Use - Based on Site Plans

Construction Phase - *

Grading - From Site Plans

Demolition -

Vehicle Trips - Based on DKS report

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblConstructionPhase	PhaseEndDate	5/18/2020	6/15/2020
tblConstructionPhase	PhaseEndDate	6/15/2020	4/22/2019
tblConstructionPhase	PhaseEndDate	7/13/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	3/26/2019	4/23/2019
tblConstructionPhase	PhaseStartDate	5/19/2020	3/26/2019
tblConstructionPhase	PhaseStartDate	6/16/2020	5/7/2019
tblGrading	AcresOfGrading	75.00	21.68
tblProjectCharacteristics	CO2IntensityFactor	590.31	429.16
tblVehicleTrips	ST_TR	2.46	7.11
tblVehicleTrips	SU_TR	1.05	7.11
tblVehicleTrips	WD_TR	11.03	7.11

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	1.2418	4.8457	3.8508	8.7200e-003	0.4460	0.2112	0.6572	0.1688	0.1981	0.3668	0.0000	791.3363	791.3363	0.1212	0.0000	794.3653
2020	0.7578	1.9812	1.7916	4.5500e-003	0.1630	0.0781	0.2411	0.0442	0.0739	0.1181	0.0000	411.9696	411.9696	0.0467	0.0000	413.1363
Maximum	**1.2418**	**4.8457**	**3.8508**	**8.7200e-003**	**0.4460**	**0.2112**	**0.6572**	**0.1688**	**0.1981**	**0.3668**	**0.0000**	**791.3363**	**791.3363**	**0.1212**	**0.0000**	**794.3653**

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	1.2418	4.8457	3.8508	8.7200e-003	0.4460	0.2112	0.6572	0.1688	0.1981	0.3668	0.0000	791.3359	791.3359	0.1212	0.0000	794.3648
2020	0.7578	1.9812	1.7916	4.5500e-003	0.1630	0.0781	0.2411	0.0442	0.0739	0.1181	0.0000	411.9695	411.9695	0.0467	0.0000	413.1361
Maximum	**1.2418**	**4.8457**	**3.8508**	**8.7200e-003**	**0.4460**	**0.2112**	**0.6572**	**0.1688**	**0.1981**	**0.3668**	**0.0000**	**791.3359**	**791.3359**	**0.1212**	**0.0000**	**794.3648**

	ROG	NOx	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	1-1-2019	3-31-2019	1.5807	1.5807
2	4-1-2019	6-30-2019	1.2861	1.2861
3	7-1-2019	9-30-2019	1.5981	1.5981
4	10-1-2019	12-31-2019	1.6111	1.6111
5	1-1-2020	3-31-2020	1.4729	1.4729
6	4-1-2020	6-30-2020	1.2739	1.2739
		Highest	1.6111	1.6111

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	1.1395	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315
Energy	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	916.2282	916.2282	0.0533	0.0136	921.6087
Mobile	0.5296	2.1739	5.7437	0.0167	1.3897	0.0153	1.4050	0.3727	0.0143	0.3870	0.0000	1,534.2577	1,534.2577	0.0780	0.0000	1,536.2088
Waste						0.0000	0.0000		0.0000	0.0000	47.9038	0.0000	47.9038	2.8310	0.0000	118.6797
Water						0.0000	0.0000		0.0000	0.0000	15.9564	62.5769	78.5333	0.0592	0.0356	90.6134
Total	**1.6870**	**2.3370**	**5.8959**	**0.0177**	**1.3897**	**0.0277**	**1.4174**	**0.3727**	**0.0267**	**0.3994**	**63.8603**	**2,513.0924**	**2,576.9527**	**3.0216**	**0.0492**	**2,667.1422**

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	1.1395	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315
Energy	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	916.2282	916.2282	0.0533	0.0136	921.6087
Mobile	0.5296	2.1739	5.7437	0.0167	1.3897	0.0153	1.4050	0.3727	0.0143	0.3870	0.0000	1,534.2577	1,534.2577	0.0780	0.0000	1,536.2088
Waste						0.0000	0.0000		0.0000	0.0000	47.9038	0.0000	47.9038	2.8310	0.0000	118.6797
Water						0.0000	0.0000		0.0000	0.0000	15.9564	62.5769	78.5333	0.0592	0.0356	90.6134
Total	**1.6870**	**2.3370**	**5.8959**	**0.0177**	**1.3897**	**0.0277**	**1.4174**	**0.3727**	**0.0267**	**0.3994**	**63.8603**	**2,513.0924**	**2,576.9527**	**3.0216**	**0.0492**	**2,667.1422**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/11/2019	5	10	
3	Grading	Grading	2/12/2019	3/25/2019	5	30	
4	Building Construction	Building Construction	4/23/2019	6/15/2020	5	300	
5	Paving	Paving	3/26/2019	4/22/2019	5	20	
6	Architectural Coating	Architectural Coating	5/7/2019	6/29/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.68

Acres of Paving: 8.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 380,625; Non-Residential Outdoor: 126,875; Striped Parking Area: 22,512 (Architectural Coating – sqft)

OffRoad Equipment

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
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
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
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	43.00	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	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	103.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	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					4.8700e-003	0.0000	4.8700e-003	7.4000e-004	0.0000	7.4000e-004	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**	**4.8700e-003**	**0.0180**	**0.0228**	**7.4000e-004**	**0.0167**	**0.0174**	**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	1.9000e-004	6.6800e-003	1.6200e-003	2.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.6624	1.6624	1.0000e-004	0.0000	1.6648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	**8.0000e-004**	**7.1100e-003**	**6.2200e-003**	**3.0000e-005**	**1.4600e-003**	**4.0000e-005**	**1.5000e-003**	**3.9000e-004**	**4.0000e-005**	**4.3000e-004**	**0.0000**	**2.6694**	**2.6694**	**1.3000e-004**	**0.0000**	**2.6727**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					4.8700e-003	0.0000	4.8700e-003	7.4000e-004	0.0000	7.4000e-004	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**	**4.8700e-003**	**0.0180**	**0.0228**	**7.4000e-004**	**0.0167**	**0.0174**	**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	1.9000e-004	6.6800e-003	1.6200e-003	2.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.6624	1.6624	1.0000e-004	0.0000	1.6648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	**8.0000e-004**	**7.1100e-003**	**6.2200e-003**	**3.0000e-005**	**1.4600e-003**	**4.0000e-005**	**1.5000e-003**	**3.9000e-004**	**4.0000e-005**	**4.3000e-004**	**0.0000**	**2.6694**	**2.6694**	**1.3000e-004**	**0.0000**	**2.6727**

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					0.1018	0.0000	0.1018	0.0509	0.0000	0.0509	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**	**0.1018**	**0.0357**	**0.1376**	**0.0509**	**0.0329**	**0.0838**	**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-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	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.1018	0.0000	0.1018	0.0509	0.0000	0.0509	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**	**0.1018**	**0.0357**	**0.1376**	**0.0509**	**0.0329**	**0.0838**	**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-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	**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**

3.5 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	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7693	212.7693	0.0518	0.0000	214.0651
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7693**	**212.7693**	**0.0518**	**0.0000**	**214.0651**

3.5 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	0.0447	1.1435	0.3495	2.3100e-003	0.0545	8.1500e-003	0.0627	0.0158	7.7900e-003	0.0236	0.0000	221.9360	221.9360	0.0139	0.0000	222.2839
Worker	0.0875	0.0615	0.6637	1.6100e-003	0.1589	1.1700e-003	0.1600	0.0423	1.0800e-003	0.0433	0.0000	145.2148	145.2148	4.5200e-003	0.0000	145.3277
Total	**0.1322**	**1.2049**	**1.0132**	**3.9200e-003**	**0.2134**	**9.3200e-003**	**0.2227**	**0.0580**	**8.8700e-003**	**0.0669**	**0.0000**	**367.1509**	**367.1509**	**0.0184**	**0.0000**	**367.6116**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7690	212.7690	0.0518	0.0000	214.0649
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7690**	**212.7690**	**0.0518**	**0.0000**	**214.0649**

3.5 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	0.0447	1.1435	0.3495	2.3100e-003	0.0545	8.1500e-003	0.0627	0.0158	7.7900e-003	0.0236	0.0000	221.9360	221.9360	0.0139	0.0000	222.2839
Worker	0.0875	0.0615	0.6637	1.6100e-003	0.1589	1.1700e-003	0.1600	0.0423	1.0800e-003	0.0433	0.0000	145.2148	145.2148	4.5200e-003	0.0000	145.3277
Total	**0.1322**	**1.2049**	**1.0132**	**3.9200e-003**	**0.2134**	**9.3200e-003**	**0.2227**	**0.0580**	**8.8700e-003**	**0.0669**	**0.0000**	**367.1509**	**367.1509**	**0.0184**	**0.0000**	**367.6116**

3.5 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	0.1261	1.1416	1.0025	1.6000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	137.8079	137.8079	0.0336	0.0000	138.6485
Total	**0.1261**	**1.1416**	**1.0025**	**1.6000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**137.8079**	**137.8079**	**0.0336**	**0.0000**	**138.6485**

3.5 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	0.0235	0.6873	0.1917	1.5100e-003	0.0358	3.5600e-003	0.0394	0.0104	3.4000e-003	0.0138	0.0000	145.0085	145.0085	8.5900e-003	0.0000	145.2232
Worker	0.0529	0.0359	0.3936	1.0200e-003	0.1044	7.5000e-004	0.1052	0.0278	6.9000e-004	0.0285	0.0000	92.5379	92.5379	2.6200e-003	0.0000	92.6033
Total	**0.0764**	**0.7232**	**0.5853**	**2.5300e-003**	**0.1403**	**4.3100e-003**	**0.1446**	**0.0381**	**4.0900e-003**	**0.0422**	**0.0000**	**237.5464**	**237.5464**	**0.0112**	**0.0000**	**237.8265**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1261	1.1416	1.0025	1.6000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	137.8078	137.8078	0.0336	0.0000	138.6483
Total	**0.1261**	**1.1416**	**1.0025**	**1.6000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**137.8078**	**137.8078**	**0.0336**	**0.0000**	**138.6483**

3.5 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	0.0235	0.6873	0.1917	1.5100e-003	0.0358	3.5600e-003	0.0394	0.0104	3.4000e-003	0.0138	0.0000	145.0085	145.0085	8.5900e-003	0.0000	145.2232
Worker	0.0529	0.0359	0.3936	1.0200e-003	0.1044	7.5000e-004	0.1052	0.0278	6.9000e-004	0.0285	0.0000	92.5379	92.5379	2.6200e-003	0.0000	92.6033
Total	**0.0764**	**0.7232**	**0.5853**	**2.5300e-003**	**0.1403**	**4.3100e-003**	**0.1446**	**0.0381**	**4.0900e-003**	**0.0422**	**0.0000**	**237.5464**	**237.5464**	**0.0112**	**0.0000**	**237.8265**

3.6 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	0.0111					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0256**	**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**

3.6 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	0.0111					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0256**	**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**

3.6 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**

3.7 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	0.7001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.1569	0.1574	2.5000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	21.8303	21.8303	1.8400e-003	0.0000	21.8764
Total	**0.7229**	**0.1569**	**0.1574**	**2.5000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**21.8303**	**21.8303**	**1.8400e-003**	**0.0000**	**21.8764**

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	0.0166	0.0117	0.1259	3.1000e-004	0.0301	2.2000e-004	0.0304	8.0200e-003	2.1000e-004	8.2200e-003	0.0000	27.5532	27.5532	8.6000e-004	0.0000	27.5746
Total	**0.0166**	**0.0117**	**0.1259**	**3.1000e-004**	**0.0301**	**2.2000e-004**	**0.0304**	**8.0200e-003**	**2.1000e-004**	**8.2200e-003**	**0.0000**	**27.5532**	**27.5532**	**8.6000e-004**	**0.0000**	**27.5746**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.1569	0.1574	2.5000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	21.8303	21.8303	1.8400e-003	0.0000	21.8764
Total	**0.7229**	**0.1569**	**0.1574**	**2.5000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**21.8303**	**21.8303**	**1.8400e-003**	**0.0000**	**21.8764**

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	0.0166	0.0117	0.1259	3.1000e-004	0.0301	2.2000e-004	0.0304	8.0200e-003	2.1000e-004	8.2200e-003	0.0000	27.5532	27.5532	8.6000e-004	0.0000	27.5746
Total	**0.0166**	**0.0117**	**0.1259**	**3.1000e-004**	**0.0301**	**2.2000e-004**	**0.0304**	**8.0200e-003**	**2.1000e-004**	**8.2200e-003**	**0.0000**	**27.5532**	**27.5532**	**8.6000e-004**	**0.0000**	**27.5746**

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	0.5282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0156	0.1086	0.1181	1.9000e-004		7.1600e-003	7.1600e-003		7.1600e-003	7.1600e-003	0.0000	16.4685	16.4685	1.2800e-003	0.0000	16.5004
Total	**0.5438**	**0.1086**	**0.1181**	**1.9000e-004**		**7.1600e-003**	**7.1600e-003**		**7.1600e-003**	**7.1600e-003**	**0.0000**	**16.4685**	**16.4685**	**1.2800e-003**	**0.0000**	**16.5004**

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	0.0115	7.8200e-003	0.0857	2.2000e-004	0.0227	1.6000e-004	0.0229	6.0500e-003	1.5000e-004	6.2000e-003	0.0000	20.1468	20.1468	5.7000e-004	0.0000	20.1610
Total	**0.0115**	**7.8200e-003**	**0.0857**	**2.2000e-004**	**0.0227**	**1.6000e-004**	**0.0229**	**6.0500e-003**	**1.5000e-004**	**6.2000e-003**	**0.0000**	**20.1468**	**20.1468**	**5.7000e-004**	**0.0000**	**20.1610**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.5282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0156	0.1086	0.1181	1.9000e-004		7.1600e-003	7.1600e-003		7.1600e-003	7.1600e-003	0.0000	16.4685	16.4685	1.2800e-003	0.0000	16.5003
Total	**0.5438**	**0.1086**	**0.1181**	**1.9000e-004**		**7.1600e-003**	**7.1600e-003**		**7.1600e-003**	**7.1600e-003**	**0.0000**	**16.4685**	**16.4685**	**1.2800e-003**	**0.0000**	**16.5003**

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	0.0115	7.8200e-003	0.0857	2.2000e-004	0.0227	1.6000e-004	0.0229	6.0500e-003	1.5000e-004	6.2000e-003	0.0000	20.1468	20.1468	5.7000e-004	0.0000	20.1610
Total	**0.0115**	**7.8200e-003**	**0.0857**	**2.2000e-004**	**0.0227**	**1.6000e-004**	**0.0229**	**6.0500e-003**	**1.5000e-004**	**6.2000e-003**	**0.0000**	**20.1468**	**20.1468**	**5.7000e-004**	**0.0000**	**20.1610**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5296	2.1739	5.7437	0.0167	1.3897	0.0153	1.4050	0.3727	0.0143	0.3870	0.0000	1,534.2577	1,534.2577	0.0780	0.0000	1,536.2088
Unmitigated	0.5296	2.1739	5.7437	0.0167	1.3897	0.0153	1.4050	0.3727	0.0143	0.3870	0.0000	1,534.2577	1,534.2577	0.0780	0.0000	1,536.2088

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,804.16	1,804.16	1804.16	3,725,783	3,725,783
Parking Lot	0.00	0.00	0.00		
Total	1,804.16	1,804.16	1,804.16	3,725,783	3,725,783

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	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
Parking Lot	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	738.8402	738.8402	0.0499	0.0103	743.1666
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	738.8402	738.8402	0.0499	0.0103	743.1666
NaturalGas Mitigated	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.3880	177.3880	3.4000e-003	3.2500e-003	178.4421
NaturalGas Unmitigated	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.3880	177.3880	3.4000e-003	3.2500e-003	178.4421

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	3.32413e+006	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.3880	177.3880	3.4000e-003	3.2500e-003	178.4421
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0179**	**0.1630**	**0.1369**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**177.3880**	**177.3880**	**3.4000e-003**	**3.2500e-003**	**178.4421**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	3.32413e+006	0.0179	0.1630	0.1369	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.3880	177.3880	3.4000e-003	3.2500e-003	178.4421
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0179**	**0.1630**	**0.1369**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**177.3880**	**177.3880**	**3.4000e-003**	**3.2500e-003**	**178.4421**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	3.66415e+006	713.2770	0.0482	9.9700e-003	717.4537
Parking Lot	131320	25.5632	1.7300e-003	3.6000e-004	25.7129
Total		**738.8402**	**0.0499**	**0.0103**	**743.1666**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	3.66415e+006	713.2770	0.0482	9.9700e-003	717.4537
Parking Lot	131320	25.5632	1.7300e-003	3.6000e-004	25.7129
Total		**738.8402**	**0.0499**	**0.0103**	**743.1666**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1395	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315
Unmitigated	1.1395	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315

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	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4300e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315
Total	**1.1395**	**1.4000e-004**	**0.0153**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0296**	**0.0296**	**8.0000e-005**	**0.0000**	**0.0315**

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	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4300e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0296	0.0296	8.0000e-005	0.0000	0.0315
Total	**1.1395**	**1.4000e-004**	**0.0153**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0296**	**0.0296**	**8.0000e-005**	**0.0000**	**0.0315**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	78.5333	0.0592	0.0356	90.6134
Unmitigated	78.5333	0.0592	0.0356	90.6134

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	45.0999 / 27.6419	78.5333	0.0592	0.0356	90.6134
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**78.5333**	**0.0592**	**0.0356**	**90.6134**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	45.0999 / 27.6419	78.5333	0.0592	0.0356	90.6134
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**78.5333**	**0.0592**	**0.0356**	**90.6134**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.9038	2.8310	0.0000	118.6797
Unmitigated	47.9038	2.8310	0.0000	118.6797

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	235.99	47.9038	2.8310	0.0000	118.6797
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**47.9038**	**2.8310**	**0.0000**	**118.6797**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	235.99	47.9038	2.8310	0.0000	118.6797
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**47.9038**	**2.8310**	**0.0000**	**118.6797**

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

Harvard Park

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	253.75	1000sqft	5.83	253,750.00	0
Parking Lot	938.00	Space	8.44	375,200.00	0

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)	429.16	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on SMUD's progress towards RPS

Land Use - Based on Site Plans

Construction Phase - *

Grading - From Site Plans

Demolition -

Vehicle Trips - Based on DKS report

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblConstructionPhase	PhaseEndDate	5/18/2020	6/15/2020
tblConstructionPhase	PhaseEndDate	6/15/2020	4/22/2019
tblConstructionPhase	PhaseEndDate	7/13/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	3/26/2019	4/23/2019
tblConstructionPhase	PhaseStartDate	5/19/2020	3/26/2019
tblConstructionPhase	PhaseStartDate	6/16/2020	5/7/2019
tblGrading	AcresOfGrading	75.00	21.68
tblProjectCharacteristics	CO2IntensityFactor	590.31	429.16
tblVehicleTrips	ST_TR	2.46	7.11
tblVehicleTrips	SU_TR	1.05	7.11
tblVehicleTrips	WD_TR	11.03	7.11

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	12.6485	54.5717	34.0989	0.0793	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	7,954.6145	7,954.6145	1.9478	0.0000	7,976.9452
2020	12.1767	32.8364	31.0903	0.0784	2.8031	1.3021	4.1052	0.7575	1.2317	1.9892	0.0000	7,827.5442	7,827.5442	0.8638	0.0000	7,849.1385
Maximum	**12.6485**	**54.5717**	**34.0989**	**0.0793**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**7,954.6145**	**7,954.6145**	**1.9478**	**0.0000**	**7,976.9452**

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	12.6485	54.5717	34.0989	0.0793	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	7,954.6145	7,954.6145	1.9478	0.0000	7,976.9452
2020	12.1767	32.8364	31.0903	0.0784	2.8031	1.3021	4.1052	0.7575	1.2317	1.9892	0.0000	7,827.5442	7,827.5442	0.8638	0.0000	7,849.1385
Maximum	**12.6485**	**54.5717**	**34.0989**	**0.0793**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**7,954.6145**	**7,954.6145**	**1.9478**	**0.0000**	**7,976.9452**

	ROG	NOx	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	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Energy	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Mobile	3.7065	11.4964	34.9725	0.0993	7.9048	0.0834	7.9882	2.1135	0.0781	2.1916		10,048.7555	10,048.7555	0.4838		10,060.8494
Total	**10.0523**	**12.3904**	**35.8446**	**0.1047**	**7.9048**	**0.1517**	**8.0565**	**2.1135**	**0.1464**	**2.2599**		**11,120.4507**	**11,120.4507**	**0.5050**	**0.0196**	**11,138.9289**

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	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Energy	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Mobile	3.7065	11.4964	34.9725	0.0993	7.9048	0.0834	7.9882	2.1135	0.0781	2.1916		10,048.7555	10,048.7555	0.4838		10,060.8494
Total	**10.0523**	**12.3904**	**35.8446**	**0.1047**	**7.9048**	**0.1517**	**8.0565**	**2.1135**	**0.1464**	**2.2599**		**11,120.4507**	**11,120.4507**	**0.5050**	**0.0196**	**11,138.9289**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/11/2019	5	10	
3	Grading	Grading	2/12/2019	3/25/2019	5	30	
4	Building Construction	Building Construction	4/23/2019	6/15/2020	5	300	
5	Paving	Paving	3/26/2019	4/22/2019	5	20	
6	Architectural Coating	Architectural Coating	5/7/2019	6/29/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.68

Acres of Paving: 8.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 380,625; Non-Residential Outdoor: 126,875; Striped Parking Area: 22,512 (Architectural Coating – sqft)

OffRoad Equipment

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
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
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
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	43.00	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	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	103.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	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					0.4875	0.0000	0.4875	0.0738	0.0000	0.0738			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**	**0.4875**	**1.7949**	**2.2824**	**0.0738**	**1.6697**	**1.7435**		**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	0.0187	0.6443	0.1586	1.7200e-003	0.0374	2.7700e-003	0.0402	0.0102	2.6500e-003	0.0129		184.4070	184.4070	0.0107		184.6744
Vendor	0.0000	0.0000	0.0000	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	**0.0890**	**0.6829**	**0.7002**	**2.9500e-003**	**0.1515**	**3.5800e-003**	**0.1551**	**0.0405**	**3.4000e-003**	**0.0439**		**307.2032**	**307.2032**	**0.0146**		**307.5673**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4875	0.0000	0.4875	0.0738	0.0000	0.0738			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**	**0.4875**	**1.7949**	**2.2824**	**0.0738**	**1.6697**	**1.7435**	**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	0.0187	0.6443	0.1586	1.7200e-003	0.0374	2.7700e-003	0.0402	0.0102	2.6500e-003	0.0129		184.4070	184.4070	0.0107		184.6744
Vendor	0.0000	0.0000	0.0000	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	**0.0890**	**0.6829**	**0.7002**	**2.9500e-003**	**0.1515**	**3.5800e-003**	**0.1551**	**0.0405**	**3.4000e-003**	**0.0439**		**307.2032**	**307.2032**	**0.0146**		**307.5673**

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					6.7885	0.0000	6.7885	3.3930	0.0000	3.3930			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**	**6.7885**	**2.3827**	**9.1711**	**3.3930**	**2.1920**	**5.5850**		**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	0.0000	0.0000	0.0000	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	0.0937	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	**0.0937**	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					6.7885	0.0000	6.7885	3.3930	0.0000	3.3930			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**	**6.7885**	**2.3827**	**9.1711**	**3.3930**	**2.1920**	**5.5850**	**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	0.0000	0.0000	0.0000	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	0.0937	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	**0.0937**	**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**

3.5 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**

3.5 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	0.4873	12.3374	3.6837	0.0258	0.6199	0.0890	0.7090	0.1784	0.0852	0.2636		2,732.0846	2,732.0846	0.1642		2,736.1892
Worker	1.1199	0.6151	8.6294	0.0197	1.8181	0.0130	1.8310	0.4823	0.0119	0.4942		1,956.5537	1,956.5537	0.0616		1,958.0929
Total	**1.6073**	**12.9525**	**12.3131**	**0.0455**	**2.4380**	**0.1020**	**2.5400**	**0.6607**	**0.0971**	**0.7578**		**4,688.6383**	**4,688.6383**	**0.2258**		**4,694.2822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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**

3.5 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	0.4873	12.3374	3.6837	0.0258	0.6199	0.0890	0.7090	0.1784	0.0852	0.2636		2,732.0846	2,732.0846	0.1642		2,736.1892
Worker	1.1199	0.6151	8.6294	0.0197	1.8181	0.0130	1.8310	0.4823	0.0119	0.4942		1,956.5537	1,956.5537	0.0616		1,958.0929
Total	**1.6073**	**12.9525**	**12.3131**	**0.0455**	**2.4380**	**0.1020**	**2.5400**	**0.6607**	**0.0971**	**0.7578**		**4,688.6383**	**4,688.6383**	**0.2258**		**4,694.2822**

3.5 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**

3.5 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	0.3884	11.3098	3.0398	0.0257	0.6199	0.0590	0.6788	0.1784	0.0564	0.2348		2,715.6509	2,715.6509	0.1539		2,719.4979
Worker	1.0306	0.5469	7.8034	0.0191	1.8181	0.0126	1.8307	0.4823	0.0117	0.4939		1,896.4960	1,896.4960	0.0543		1,897.8543
Total	**1.4190**	**11.8567**	**10.8432**	**0.0447**	**2.4379**	**0.0716**	**2.5095**	**0.6606**	**0.0681**	**0.7287**		**4,612.1469**	**4,612.1469**	**0.2082**		**4,617.3522**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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**

3.5 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	0.3884	11.3098	3.0398	0.0257	0.6199	0.0590	0.6788	0.1784	0.0564	0.2348		2,715.6509	2,715.6509	0.1539		2,719.4979
Worker	1.0306	0.5469	7.8034	0.0191	1.8181	0.0126	1.8307	0.4823	0.0117	0.4939		1,896.4960	1,896.4960	0.0543		1,897.8543
Total	**1.4190**	**11.8567**	**10.8432**	**0.0447**	**2.4379**	**0.0716**	**2.5095**	**0.6606**	**0.0681**	**0.7287**		**4,612.1469**	**4,612.1469**	**0.2082**		**4,617.3522**

3.6 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	1.1056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5601**	**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**

3.6 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	1.1056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5601**	**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**

3.6 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**

3.7 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	8.1887					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	**8.4551**	**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	0.2249	0.1235	1.7331	3.9500e-003	0.3651	2.6000e-003	0.3677	0.0969	2.4000e-003	0.0993		392.9480	392.9480	0.0124		393.2572
Total	**0.2249**	**0.1235**	**1.7331**	**3.9500e-003**	**0.3651**	**2.6000e-003**	**0.3677**	**0.0969**	**2.4000e-003**	**0.0993**		**392.9480**	**392.9480**	**0.0124**		**393.2572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.1887					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	**8.4551**	**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	0.2249	0.1235	1.7331	3.9500e-003	0.3651	2.6000e-003	0.3677	0.0969	2.4000e-003	0.0993		392.9480	392.9480	0.0124		393.2572
Total	**0.2249**	**0.1235**	**1.7331**	**3.9500e-003**	**0.3651**	**2.6000e-003**	**0.3677**	**0.0969**	**2.4000e-003**	**0.0993**		**392.9480**	**392.9480**	**0.0124**		**393.2572**

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	8.1887					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	**8.4309**	**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	0.2070	0.1098	1.5672	3.8300e-003	0.3651	2.5400e-003	0.3677	0.0969	2.3400e-003	0.0992		380.8862	380.8862	0.0109		381.1590
Total	**0.2070**	**0.1098**	**1.5672**	**3.8300e-003**	**0.3651**	**2.5400e-003**	**0.3677**	**0.0969**	**2.3400e-003**	**0.0992**		**380.8862**	**380.8862**	**0.0109**		**381.1590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.1887					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	**8.4309**	**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	0.2070	0.1098	1.5672	3.8300e-003	0.3651	2.5400e-003	0.3677	0.0969	2.3400e-003	0.0992		380.8862	380.8862	0.0109		381.1590
Total	**0.2070**	**0.1098**	**1.5672**	**3.8300e-003**	**0.3651**	**2.5400e-003**	**0.3677**	**0.0969**	**2.3400e-003**	**0.0992**		**380.8862**	**380.8862**	**0.0109**		**381.1590**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7065	11.4964	34.9725	0.0993	7.9048	0.0834	7.9882	2.1135	0.0781	2.1916		10,048.7555	10,048.7555	0.4838		10,060.8494
Unmitigated	3.7065	11.4964	34.9725	0.0993	7.9048	0.0834	7.9882	2.1135	0.0781	2.1916		10,048.7555	10,048.7555	0.4838		10,060.8494

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,804.16	1,804.16	1804.16	3,725,783	3,725,783
Parking Lot	0.00	0.00	0.00		
Total	1,804.16	1,804.16	1,804.16	3,725,783	3,725,783

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	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
Parking Lot	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	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
NaturalGas Unmitigated	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	9107.19	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0982**	**0.8929**	**0.7500**	**5.3600e-003**		**0.0679**	**0.0679**		**0.0679**	**0.0679**		**1,071.4343**	**1,071.4343**	**0.0205**	**0.0196**	**1,077.8013**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	9.10719	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0982**	**0.8929**	**0.7500**	**5.3600e-003**		**0.0679**	**0.0679**		**0.0679**	**0.0679**		**1,071.4343**	**1,071.4343**	**0.0205**	**0.0196**	**1,077.8013**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Unmitigated	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781

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	0.6730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5632					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0114	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Total	**6.2476**	**1.1200e-003**	**0.1222**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2608**	**0.2608**	**6.9000e-004**		**0.2781**

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	0.6730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5632					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0114	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Total	**6.2476**	**1.1200e-003**	**0.1222**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2608**	**0.2608**	**6.9000e-004**		**0.2781**

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

Harvard Park

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	253.75	1000sqft	5.83	253,750.00	0
Parking Lot	938.00	Space	8.44	375,200.00	0

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)	429.16	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on SMUD's progress towards RPS

Land Use - Based on Site Plans

Construction Phase - *

Grading - From Site Plans

Demolition -

Vehicle Trips - Based on DKS report

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	300.00
tblConstructionPhase	PhaseEndDate	5/18/2020	6/15/2020
tblConstructionPhase	PhaseEndDate	6/15/2020	4/22/2019
tblConstructionPhase	PhaseEndDate	7/13/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	3/26/2019	4/23/2019
tblConstructionPhase	PhaseStartDate	5/19/2020	3/26/2019
tblConstructionPhase	PhaseStartDate	6/16/2020	5/7/2019
tblGrading	AcresOfGrading	75.00	21.68
tblProjectCharacteristics	CO2IntensityFactor	590.31	429.16
tblVehicleTrips	ST_TR	2.46	7.11
tblVehicleTrips	SU_TR	1.05	7.11
tblVehicleTrips	WD_TR	11.03	7.11

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	12.5664	54.5838	33.9980	0.0758	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	7,599.9924	7,599.9924	1.9472	0.0000	7,622.4553
2020	12.0986	33.2221	30.2002	0.0750	2.8031	1.3041	4.1072	0.7575	1.2336	1.9911	0.0000	7,480.7778	7,480.7778	0.8687	0.0000	7,502.4950
Maximum	**12.5664**	**54.5838**	**33.9980**	**0.0758**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**7,599.9924**	**7,599.9924**	**1.9472**	**0.0000**	**7,622.4553**

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	12.5664	54.5838	33.9980	0.0758	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	7,599.9924	7,599.9924	1.9472	0.0000	7,622.4553
2020	12.0986	33.2221	30.2002	0.0750	2.8031	1.3041	4.1072	0.7575	1.2336	1.9911	0.0000	7,480.7778	7,480.7778	0.8687	0.0000	7,502.4950
Maximum	**12.5664**	**54.5838**	**33.9980**	**0.0758**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**7,599.9924**	**7,599.9924**	**1.9472**	**0.0000**	**7,622.4553**

	ROG	NOx	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	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Energy	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Mobile	2.7494	12.2676	33.0796	0.0896	7.9048	0.0848	7.9896	2.1135	0.0794	2.1929		9,078.0195	9,078.0195	0.4834		9,090.1054
Total	**9.0952**	**13.1616**	**33.9517**	**0.0950**	**7.9048**	**0.1531**	**8.0579**	**2.1135**	**0.1477**	**2.2612**		**10,149.7146**	**10,149.7146**	**0.5047**	**0.0196**	**10,168.1849**

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	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Energy	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Mobile	2.7494	12.2676	33.0796	0.0896	7.9048	0.0848	7.9896	2.1135	0.0794	2.1929		9,078.0195	9,078.0195	0.4834		9,090.1054
Total	**9.0952**	**13.1616**	**33.9517**	**0.0950**	**7.9048**	**0.1531**	**8.0579**	**2.1135**	**0.1477**	**2.2612**		**10,149.7146**	**10,149.7146**	**0.5047**	**0.0196**	**10,168.1849**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/11/2019	5	10	
3	Grading	Grading	2/12/2019	3/25/2019	5	30	
4	Building Construction	Building Construction	4/23/2019	6/15/2020	5	300	
5	Paving	Paving	3/26/2019	4/22/2019	5	20	
6	Architectural Coating	Architectural Coating	5/7/2019	6/29/2020	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.68

Acres of Paving: 8.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 380,625; Non-Residential Outdoor: 126,875; Striped Parking Area: 22,512 (Architectural Coating – sqft)

OffRoad Equipment

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
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
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
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	43.00	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	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	103.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	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					0.4875	0.0000	0.4875	0.0738	0.0000	0.0738			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**	**0.4875**	**1.7949**	**2.2824**	**0.0738**	**1.6697**	**1.7435**		**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	0.0194	0.6719	0.1701	1.7000e-003	0.0374	2.8600e-003	0.0403	0.0102	2.7400e-003	0.0130		181.6360	181.6360	0.0112		181.9164
Vendor	0.0000	0.0000	0.0000	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	**0.0841**	**0.7196**	**0.6361**	**2.7800e-003**	**0.1515**	**3.6700e-003**	**0.1552**	**0.0405**	**3.4900e-003**	**0.0440**		**289.4860**	**289.4860**	**0.0146**		**289.8520**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4875	0.0000	0.4875	0.0738	0.0000	0.0738			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**	**0.4875**	**1.7949**	**2.2824**	**0.0738**	**1.6697**	**1.7435**	**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	0.0194	0.6719	0.1701	1.7000e-003	0.0374	2.8600e-003	0.0403	0.0102	2.7400e-003	0.0130		181.6360	181.6360	0.0112		181.9164
Vendor	0.0000	0.0000	0.0000	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	**0.0841**	**0.7196**	**0.6361**	**2.7800e-003**	**0.1515**	**3.6700e-003**	**0.1552**	**0.0405**	**3.4900e-003**	**0.0440**		**289.4860**	**289.4860**	**0.0146**		**289.8520**

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					6.7885	0.0000	6.7885	3.3930	0.0000	3.3930			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**	**6.7885**	**2.3827**	**9.1711**	**3.3930**	**2.1920**	**5.5850**		**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	0.0000	0.0000	0.0000	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	0.0863	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	**0.0863**	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					6.7885	0.0000	6.7885	3.3930	0.0000	3.3930			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**	**6.7885**	**2.3827**	**9.1711**	**3.3930**	**2.1920**	**5.5850**	**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	0.0000	0.0000	0.0000	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	0.0863	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	**0.0863**	**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**

3.5 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**

3.5 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	0.5123	12.6387	4.1904	0.0252	0.6199	0.0914	0.7114	0.1784	0.0875	0.2659		2,663.4338	2,663.4338	0.1779		2,667.8816
Worker	1.0308	0.7606	7.4242	0.0173	1.8181	0.0130	1.8310	0.4823	0.0119	0.4942		1,718.4103	1,718.4103	0.0546		1,719.7739
Total	**1.5431**	**13.3993**	**11.6146**	**0.0425**	**2.4380**	**0.1044**	**2.5424**	**0.6607**	**0.0994**	**0.7601**		**4,381.8441**	**4,381.8441**	**0.2325**		**4,387.6555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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**

3.5 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	0.5123	12.6387	4.1904	0.0252	0.6199	0.0914	0.7114	0.1784	0.0875	0.2659		2,663.4338	2,663.4338	0.1779		2,667.8816
Worker	1.0308	0.7606	7.4242	0.0173	1.8181	0.0130	1.8310	0.4823	0.0119	0.4942		1,718.4103	1,718.4103	0.0546		1,719.7739
Total	**1.5431**	**13.3993**	**11.6146**	**0.0425**	**2.4380**	**0.1044**	**2.5424**	**0.6607**	**0.0994**	**0.7601**		**4,381.8441**	**4,381.8441**	**0.2325**		**4,387.6555**

3.5 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**

3.5 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	0.4091	11.5408	3.4967	0.0250	0.6199	0.0609	0.6808	0.1784	0.0583	0.2367		2,646.1967	2,646.1967	0.1665		2,650.3600
Worker	0.9483	0.6757	6.6817	0.0167	1.8181	0.0126	1.8307	0.4823	0.0117	0.4939		1,665.5636	1,665.5636	0.0479		1,666.7608
Total	**1.3574**	**12.2166**	**10.1783**	**0.0417**	**2.4379**	**0.0736**	**2.5115**	**0.6606**	**0.0699**	**0.7306**		**4,311.7602**	**4,311.7602**	**0.2144**		**4,317.1207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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**

3.5 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	0.4091	11.5408	3.4967	0.0250	0.6199	0.0609	0.6808	0.1784	0.0583	0.2367		2,646.1967	2,646.1967	0.1665		2,650.3600
Worker	0.9483	0.6757	6.6817	0.0167	1.8181	0.0126	1.8307	0.4823	0.0117	0.4939		1,665.5636	1,665.5636	0.0479		1,666.7608
Total	**1.3574**	**12.2166**	**10.1783**	**0.0417**	**2.4379**	**0.0736**	**2.5115**	**0.6606**	**0.0699**	**0.7306**		**4,311.7602**	**4,311.7602**	**0.2144**		**4,317.1207**

3.6 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	1.1056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5601**	**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**

3.6 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	1.1056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5601**	**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**

3.6 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**

3.7 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	8.1887					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	**8.4551**	**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	0.2070	0.1528	1.4911	3.4700e-003	0.3651	2.6000e-003	0.3677	0.0969	2.4000e-003	0.0993		345.1201	345.1201	0.0110		345.3939
Total	**0.2070**	**0.1528**	**1.4911**	**3.4700e-003**	**0.3651**	**2.6000e-003**	**0.3677**	**0.0969**	**2.4000e-003**	**0.0993**		**345.1201**	**345.1201**	**0.0110**		**345.3939**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.1887					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	**8.4551**	**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	0.2070	0.1528	1.4911	3.4700e-003	0.3651	2.6000e-003	0.3677	0.0969	2.4000e-003	0.0993		345.1201	345.1201	0.0110		345.3939
Total	**0.2070**	**0.1528**	**1.4911**	**3.4700e-003**	**0.3651**	**2.6000e-003**	**0.3677**	**0.0969**	**2.4000e-003**	**0.0993**		**345.1201**	**345.1201**	**0.0110**		**345.3939**

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	8.1887					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	**8.4309**	**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	0.1905	0.1357	1.3419	3.3600e-003	0.3651	2.5400e-003	0.3677	0.0969	2.3400e-003	0.0992		334.5065	334.5065	9.6200e-003		334.7469
Total	**0.1905**	**0.1357**	**1.3419**	**3.3600e-003**	**0.3651**	**2.5400e-003**	**0.3677**	**0.0969**	**2.3400e-003**	**0.0992**		**334.5065**	**334.5065**	**9.6200e-003**		**334.7469**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.1887					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	**8.4309**	**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	0.1905	0.1357	1.3419	3.3600e-003	0.3651	2.5400e-003	0.3677	0.0969	2.3400e-003	0.0992		334.5065	334.5065	9.6200e-003		334.7469
Total	**0.1905**	**0.1357**	**1.3419**	**3.3600e-003**	**0.3651**	**2.5400e-003**	**0.3677**	**0.0969**	**2.3400e-003**	**0.0992**		**334.5065**	**334.5065**	**9.6200e-003**		**334.7469**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7494	12.2676	33.0796	0.0896	7.9048	0.0848	7.9896	2.1135	0.0794	2.1929		9,078.0195	9,078.0195	0.4834		9,090.1054
Unmitigated	2.7494	12.2676	33.0796	0.0896	7.9048	0.0848	7.9896	2.1135	0.0794	2.1929		9,078.0195	9,078.0195	0.4834		9,090.1054

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,804.16	1,804.16	1804.16	3,725,783	3,725,783
Parking Lot	0.00	0.00	0.00		
Total	1,804.16	1,804.16	1,804.16	3,725,783	3,725,783

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	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
Parking Lot	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	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
NaturalGas Unmitigated	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	9107.19	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0982**	**0.8929**	**0.7500**	**5.3600e-003**		**0.0679**	**0.0679**		**0.0679**	**0.0679**		**1,071.4343**	**1,071.4343**	**0.0205**	**0.0196**	**1,077.8013**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	9.10719	0.0982	0.8929	0.7500	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,071.4343	1,071.4343	0.0205	0.0196	1,077.8013
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0982**	**0.8929**	**0.7500**	**5.3600e-003**		**0.0679**	**0.0679**		**0.0679**	**0.0679**		**1,071.4343**	**1,071.4343**	**0.0205**	**0.0196**	**1,077.8013**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Unmitigated	6.2476	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781

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	0.6730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5632					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0114	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Total	**6.2476**	**1.1200e-003**	**0.1222**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2608**	**0.2608**	**6.9000e-004**		**0.2781**

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	0.6730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5632					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0114	1.1200e-003	0.1222	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2608	0.2608	6.9000e-004		0.2781
Total	**6.2476**	**1.1200e-003**	**0.1222**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2608**	**0.2608**	**6.9000e-004**		**0.2781**

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

Harvard Park

Sacramento County, 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	3.84000E-002	2.65530E-001	2.75560E-001	4.50000E-004	1.81600E-002	1.81600E-002	0.00000E+000	3.82988E+001	3.82988E+001	3.12000E-003	0.00000E+000	3.83768E+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	6.35200E-002	7.56380E-001	2.91710E-001	7.60000E-004	3.17400E-002	2.92000E-002	0.00000E+000	6.74263E+001	6.74263E+001	2.15200E-002	0.00000E+000	6.79642E+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	6.91300E-002	6.19390E-001	5.34900E-001	6.90000E-004	4.73000E-002	4.35100E-002	0.00000E+000	6.12413E+001	6.12413E+001	1.95400E-002	0.00000E+000	6.17299E+001
Generator Sets	6.39300E-002	5.48880E-001	5.57420E-001	9.90000E-004	3.21100E-002	3.21100E-002	0.00000E+000	8.47811E+001	8.47811E+001	5.13000E-003	0.00000E+000	8.49095E+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	9.96700E-002	1.00094E+000	1.01822E+000	1.38000E-003	6.56600E-002	6.04100E-002	0.00000E+000	1.22845E+002	1.22845E+002	3.91700E-002	0.00000E+000	1.23824E+002
Welders	5.52100E-002	2.40490E-001	2.68690E-001	3.80000E-004	1.41900E-002	1.41900E-002	0.00000E+000	2.82331E+001	2.82331E+001	4.50000E-003	0.00000E+000	2.83457E+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	3.84000E-002	2.65530E-001	2.75560E-001	4.50000E-004	1.81600E-002	1.81600E-002	0.00000E+000	3.82988E+001	3.82988E+001	3.12000E-003	0.00000E+000	3.83767E+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	6.35200E-002	7.56370E-001	2.91710E-001	7.60000E-004	3.17400E-002	2.92000E-002	0.00000E+000	6.74262E+001	6.74262E+001	2.15200E-002	0.00000E+000	6.79641E+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	6.91300E-002	6.19390E-001	5.34900E-001	6.90000E-004	4.73000E-002	4.35100E-002	0.00000E+000	6.12412E+001	6.12412E+001	1.95400E-002	0.00000E+000	6.17299E+001
Generator Sets	6.39300E-002	5.48880E-001	5.57420E-001	9.90000E-004	3.21100E-002	3.21100E-002	0.00000E+000	8.47810E+001	8.47810E+001	5.13000E-003	0.00000E+000	8.49094E+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	9.96700E-002	1.00094E+000	1.01822E+000	1.38000E-003	6.56600E-002	6.04100E-002	0.00000E+000	1.22845E+002	1.22845E+002	3.91700E-002	0.00000E+000	1.23824E+002
Welders	5.52100E-002	2.40490E-001	2.68690E-001	3.80000E-004	1.41900E-002	1.41900E-002	0.00000E+000	2.82331E+001	2.82331E+001	4.50000E-003	0.00000E+000	2.83456E+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	1.30287E-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	1.32209E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18648E-006	1.18648E-006	0.00000E+000	0.00000E+000	1.17709E-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	1.14302E-006	1.14302E-006	0.00000E+000	0.00000E+000	1.13397E-006
Generator Sets	0.00000E+000	0.00000E+000	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	1.17772E-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	1.13964E-006	1.13964E-006	0.00000E+000	0.00000E+000	1.21139E-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	1.41115E-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	0.05	0.01	0.05	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	0.35	0.10	0.35	0.10	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.10	0.05	0.10	0.05	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
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	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
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				
	Commute	Commute Subtotal	0.00			

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

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	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	
No	% Electric Leafblower	
No	% Electric Chainsaw	

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	