# 8670 Fruitridge Industrial Warehouse

## Initial Study / Mitigated Negative Declaration

PREPARED FOR THE CITY OF SACRAMENTO



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

**JUNE 2016** 



COMMUNITY DEVELOPMENT DEPARTMENT

ENVIRONMENTAL PLANNING SERVICES

300 Richards Boulevard Third Floor Sacramento, CA 95811

#### 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:

**8670 Fruitridge Warehouse (DR16-016)** - The project site is located at 8670 Fruitridge Road in the City of Sacramento. Florin Perkins Road is located west of the site, 88<sup>th</sup> Street to the east, and Elder Creek Road to the south. The project site is bounded by a City-maintained, concrete-lined drainage ditch on the west and south (under the jurisdiction of Pacific Gas & Electric (PG&E)), Fruitridge Road on the north, and existing industrial development on the east. The project site is identified as City of Sacramento Assessor's Parcel Numbers (APNs) 062-0100-002, 062-0100-003, 062-0100-019, 062-01000-025, and 062-0100-026.

The proposed project would include the construction of a 243,675-sf concrete, tilt-up warehouse building. The proposed one-story building would be +/- 39.5 feet high. In addition, two depressed loading docks would be constructed on the east side of the proposed building, and a retaining wall would be constructed along the western boundary of the project site. The project would include the widening of Fruitridge Road along the project site's frontage and dedication of right-of-way. Two driveways are situated on Fruitridge Road for site ingress and egress. The project would include a total of 255 parking spaces, as well as eight bicycle lockers for bicycle parking.

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 pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

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) adopted by the City of Sacramento, 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, 3<sup>rd</sup> Floor, Sacramento, CA 95811 from 9:00 a.m. to 4:00 p.m. (or 8:00 a.m. to 5:00 p.m. with prior arrangement). The document is also available on the CDD website at: <a href="http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports">http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports</a>

#### 8670 FRUITRIDGE INDUSTRIAL WAREHOUSE

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

This Initial Study 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**

This Initial Study is organized into the following sections:

**SECTION I - BACKGROUND:** Provides summary background information about the project name, location, sponsor, and the date this Initial Study 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 Initial Study.

**APPENDICES:** Appends technical information that was referenced as attached in the preparation of the Initial Study.

#### **SECTION I - BACKGROUND**

Project Name and File Number: 8670 Fruitridge Industrial Warehouse (DR16-016)

Project Location: 8670 Fruitridge Road

Sacramento, CA 95826

Assessor's Parcel Numbers (APNs) 062-0100-002,

062-0100-003, 062-0100-019, 062-0100-025, 062-0100-026

Project Applicant: Cybil Bryant

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Project Planner: David Hung, Associate Planner

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dhung@cityofsacramento.org

Environmental Planner: Scott Johnson, Associate Planner

(916) 808-5842

srjohnson@cityofsacramento.org

Date Initial Study Completed: June 2016

This Initial Study 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 is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2035 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. See also the Master EIR for the

#### 8670 FRUITRIDGE INDUSTRIAL WAREHOUSE (PROJECT DR16-016)

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2035 General Plan. 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 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://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx.

This analysis 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, Third Floor, Sacramento, CA 95811, and on the City's web site at: <a href="http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports">http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports</a>.

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 Blvd., 3<sup>rd</sup> Floor, Sacramento, California.

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Written comments should be sent at the earliest possible date, but no later than the 30-day review period ending July 3, 2016.

Please send written responses to:

Tom Buford, Senior Planner
Community Development Department
City of Sacramento
300 Richards Blvd., 3<sup>rd</sup> Floor
Sacramento, CA 95811
Direct Line: (916) 808-7931
TBuford@cityofsacramento.org

#### **SECTION II - PROJECT DESCRIPTION**

#### Introduction

The Project Description section of the Initial Study provides a description of the 8670 Fruitridge Industrial Warehouse Project (proposed project) components. The proposed project is intended to function as an overflow storage warehouse for the Mitsubishi Rayon Carbon Fiber and Composites, Inc. facility in the City of Sacramento to store large quantities of carbon fiber materials.

#### **Project Background**

As noted above, the proposed project is intended to function as an overflow storage warehouse for the Mitsubishi Rayon Carbon Fiber and Composites, Inc. manufacturing plant in the City of Sacramento. The Mitsubishi Rayon Carbon Fiber and Composites, Inc. plant is located at 5900 88th Street in the City of Sacramento, approximately 0.25-mile southeast of the proposed project site. The manufacturing plant converts raw material precursor such as polyacrylonitrile (PAN) or rayon or petroleum pitch into carbon fiber. In order to accommodate an increase in production and demand for carbon fiber, the existing manufacturing facility is currently undergoing an expansion from approximately 65,000 square feet of manufacturing/warehouse uses to accommodate an additional approximately 60,000 square feet of manufacturing space plus another 10,000 square feet of maintenance and warehouse space.

The proposed project would operate as materials overflow storage for the existing Mitsubishi Rayon Carbon Fiber and Composites, Inc. manufacturing plant and would not include any manufacturing uses.

#### **Project Description**

Further details regarding the project location, existing conditions, surrounding land uses, and project components are provided below.

#### **Project Location**

The proposed project site is located at 8670 Fruitridge Road in the City of Sacramento (see Figure 1, Regional Location). Florin Perkins Road is located west of the site, 88<sup>th</sup> Street to the east, and Elder Creek Road to the south. The project site is bounded by a City-maintained, concrete-lined drainage ditch on the west and south (under the jurisdiction of Pacific Gas & Electric (PG&E)), Fruitridge Road on the north, and existing industrial development on the east. A roadside ditch runs along the site's frontage with Fruitridge Road and drains to an existing 18-inch storm drain pipe that discharges directly into the adjacent canal. The Central California Traction Company (CCTC) railroad tracks are located approximately 40 feet west of the project site's western boundary. The project site is identified as City of Sacramento Assessor's Parcel Numbers (APNs) 062-0100-002, 062-0100-003, 062-0100-019, 062-0100-025, and 062-0100-026 (see Figure 2, Project Vicinity Map).

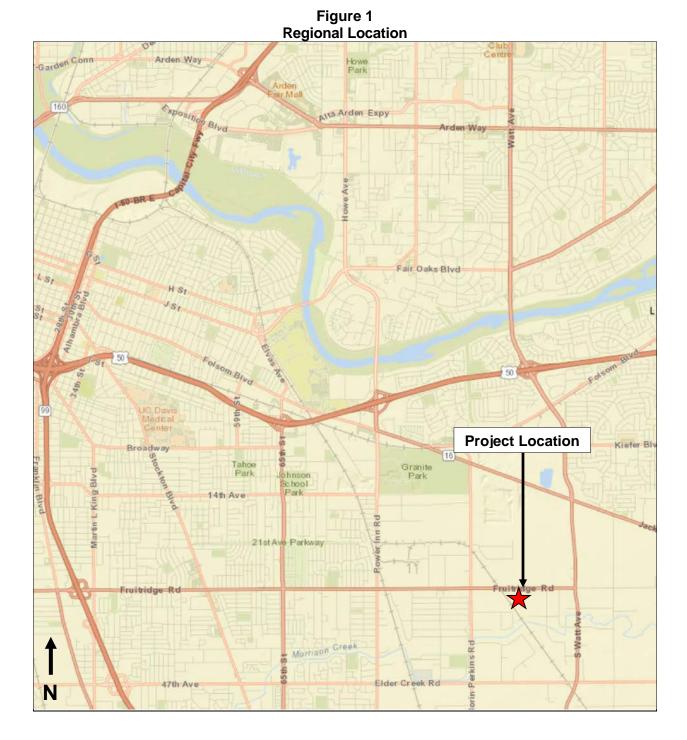


Figure 2
Project Vicinity Map



#### **Existing Conditions and Surrounding Land Uses**

The approximately 14-acre proposed project site is currently vacant with the exception of one 30-foot-tall 12,840-square-foot (sf) industrial building on 0.75-acre of the project site. The existing building is proposed to be demolished as part of the project.

The project site is highly disturbed. The two largest parcels (APNs) 062-010-25 and 062-010-26 are disced and contain sparse, low ruderal vegetation. A few shrubs and trees occur along the fenced boundary of the site. The project site is relatively flat, disced with minimal surface vegetation, and surrounded by chain link fencing. A single-story block masonry and metal building, a former building slab surrounded by asphalt pavement, and a depressed loading dock along the south side of the former building slab currently exist on-site. Currently, 54 parking spaces are provided on the project site. A total of nine trees are located on the project site; none of the trees are classified as heritage or street trees. The on-site trees would be removed with implementation of the project. Along the south side of Fruitridge Road adjacent to the project site is a drainage ditch that collects approximately nine acres of surface water and drains to the west. The ditch drains to an existing 18-inch storm drain pipe that discharges directly into the adjacent canal through a flap gate.

The 2035 General Plan land use designation for the site is Industrial and the current City of Sacramento zoning designation for the site is Heavy Industrial (M-2(S)). Uses surrounding the project site include the following: Central California Traction Company (CCTC) railroad tracks to the west; various industrial land uses, including equipment rentals and building suppliers to the east; various industrial land uses, including Florin Fruitridge Industrial Park to the south; and the L and D Landfill (a Class III facility limited to commercial waste and recycling) to the north. The site is surrounded on all sides by land designated as Industrial in the City's General Plan. The nearest existing sensitive receptors to the site are rural, single-family residences located nearly 3,500 feet east of the project site along Osage Avenue.

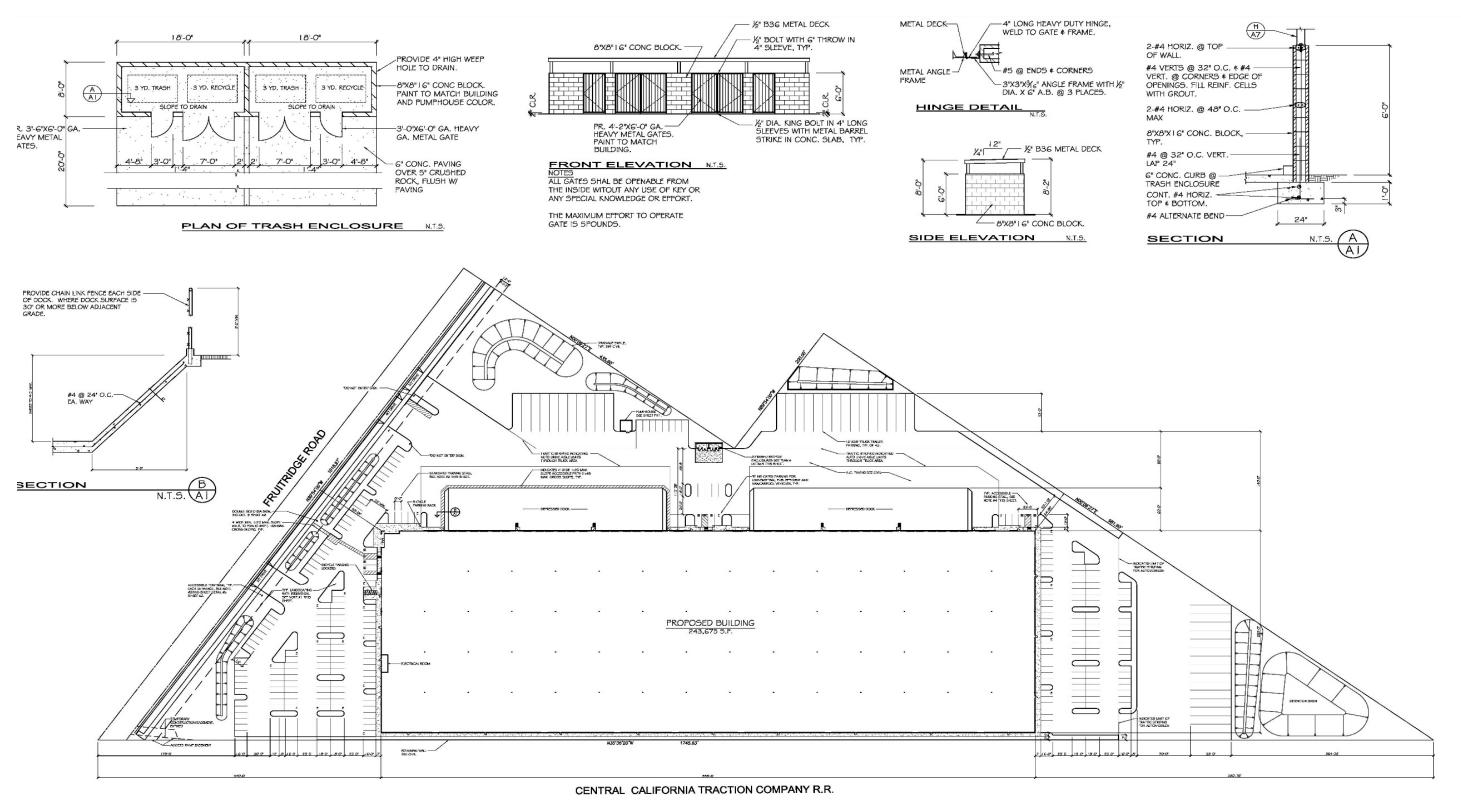
#### **Project Components**

The proposed project would include the construction of a 243,675-sf concrete, tilt-up warehouse building. The proposed one-story building would be 39.5 feet high. In addition, two depressed loading docks would be constructed on the east side of the proposed building, and a retaining wall would be constructed along the western boundary of the project site. The project would include the widening of Fruitridge Road along the project site's frontage and dedication of right-of-way. Two driveways are situated on Fruitridge Road for site ingress and egress. The project would include a total of 255 parking spaces, as well as eight bicycle lockers for bicycle parking (see Figure 3, Site Plan).

#### Project Construction

Construction of the proposed project is expected to begin in 2016 and require a period of approximately eight months. Demolition of the existing building would require approximately 15 days, paving of the site would require approximately 15 days, and construction of the proposed new building would require approximately six months.

Figure 3 Site Plan



Activities that would occur during the construction period include site preparation work (site demolition/building pad preparation, relocation of site utilities/installation of new utilities, and grading) and office and warehouse building construction (foundations and underground utilities, slab on grade, form/pour/cure/construct tilt-up panels, steel and deck installation, concrete slab on second floor deck, office roof installation, elevator installation, mechanical/plumbing/fire protection installation, electrical installation, and installation of finishes, windows and doors).

The grading and disturbance areas consist of approximately 14 acres over the project site with excavations depths varying from 0 to 36 inches for typical site grading and up to 96 inches (eight feet) for utility trenches. The grading and trenching methods will include standard construction practices utilizing backhoes, excavators, tractors, and compactors. All construction staging areas would be located on the project site.

#### Project Infrastructure

The following section describes the water, wastewater, drainage, and energy infrastructure that would serve the proposed project site. Figure 4 and Figure 5, Utility Plan (North and South), illustrate the proposed water, wastewater, and drainage infrastructure.

#### Water Supply

The proposed project site is currently occupied by an existing industrial building and, therefore, the property is currently supplied by the City of Sacramento water distribution system. The property currently connects to a 24-inch water distribution main located under Fruitridge Road.

Three fire hydrants would be included on the proposed project site with fire supply lines that connect to the City main located at Florin-Perkins Road. Fire extinguishers and a fire hose that fits the hydrants would also be provided on the site and water pipes for the purposes of fire protection would be installed as part of the project.

#### 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 is currently occupied by an existing industrial building that is currently served with an existing wastewater conveyance system. The property currently connects to an existing 15-inch sewer line that is located under Fruitridge Road. The proposed project would connect to the 15-inch sewer line with a new six-inch on-site sewer line.

#### <u>Drainage</u>

The site is bounded by a City-maintained, concrete-lined drainage ditch to the west and south (PG&E Ditch). Currently, a drainage ditch exists on the south side of Fruitridge Road (adjacent to the site). The ditch drains to the west, to an existing 18-inch storm drain pipe that discharges directly into the PG&E Ditch through a flap gate.

Figure 4 Utility Plan – North

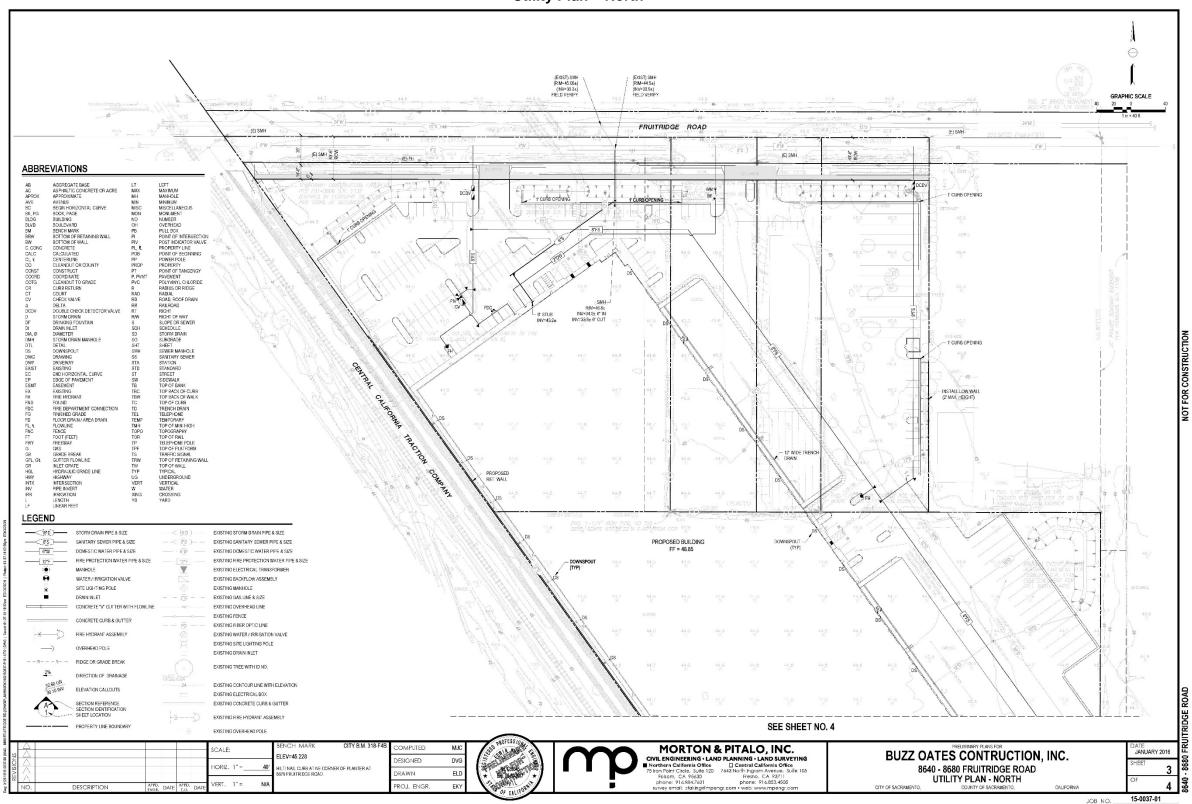
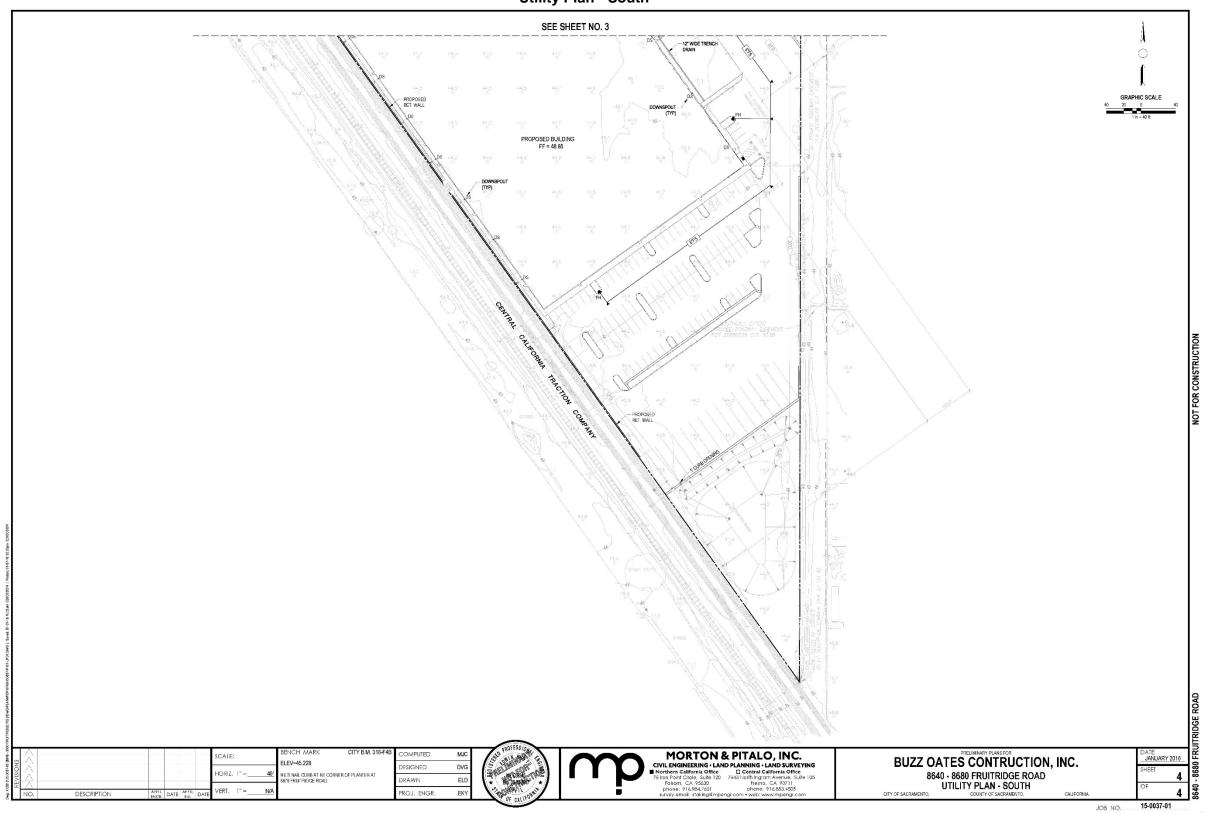


Figure 5 Utility Plan - South



The proposed project's on-site drainage improvements would consist of construction of underground storm drain piping, above-ground trapezoidal vegetated water quality swales, a detention basin, and a storm drain lift station pump. The detention basin would be constructed in the southern corner of the project site and the basin would pump via lift station into the canal along the western boundary of the project site (see Figure 6 and Figure 7, Grading and Drainage Plan (North and South).

In addition to the on-site drainage improvements, off-site drainage improvements would include construction of a new storm drain main to replace the existing roadside ditch, with new inlets placed to collect drainage in the new curb and gutter. The new storm drain line would collect stormwater from the east of the project site and connect into the existing 18-inch pipe that ties directly into the PG&E Ditch.

#### **Energy**

The proposed project site is currently supplied electrical supply by Sacramento Municipal Utility District (SMUD) infrastructure. With implementation of the proposed project, SMUD would have the capacity to continue to supply adequate electricity to the site. Electricity use at the project site is expected to be approximately 904,609 kilowatt hours per year.

#### Site Access

The proposed project would include widening of Fruitridge Road along the project site's northern frontage, dedication of City right-of-way, and placement of new curb, gutter, and sidewalk. The project site would be accessed by the two existing driveways located at the Fruitridge Road frontage.

#### **Project Approvals**

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

- Approval/Adoption of the IS/MND and adoption of a Mitigation Monitoring Plan; and
- Approval of a Site Plan and Design Review for modifications to the existing site.

Figure 6
Grading and Drainage Plan

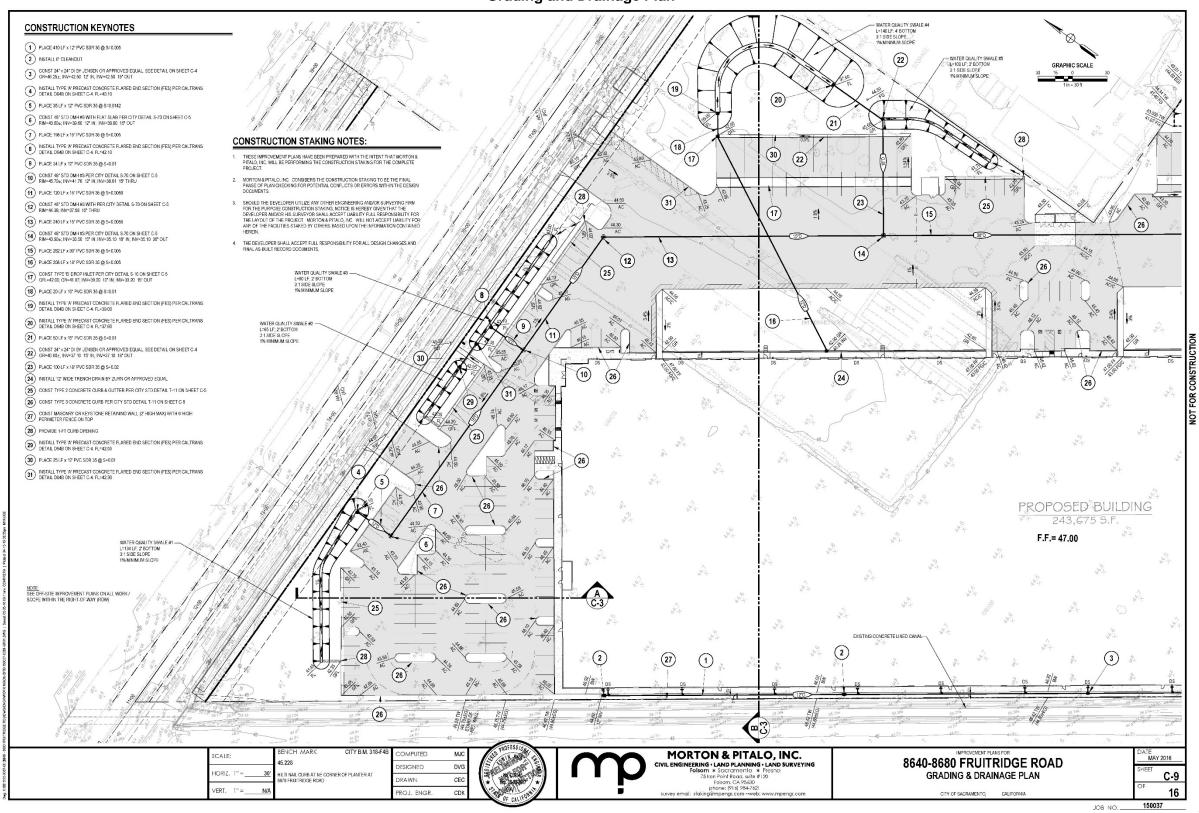
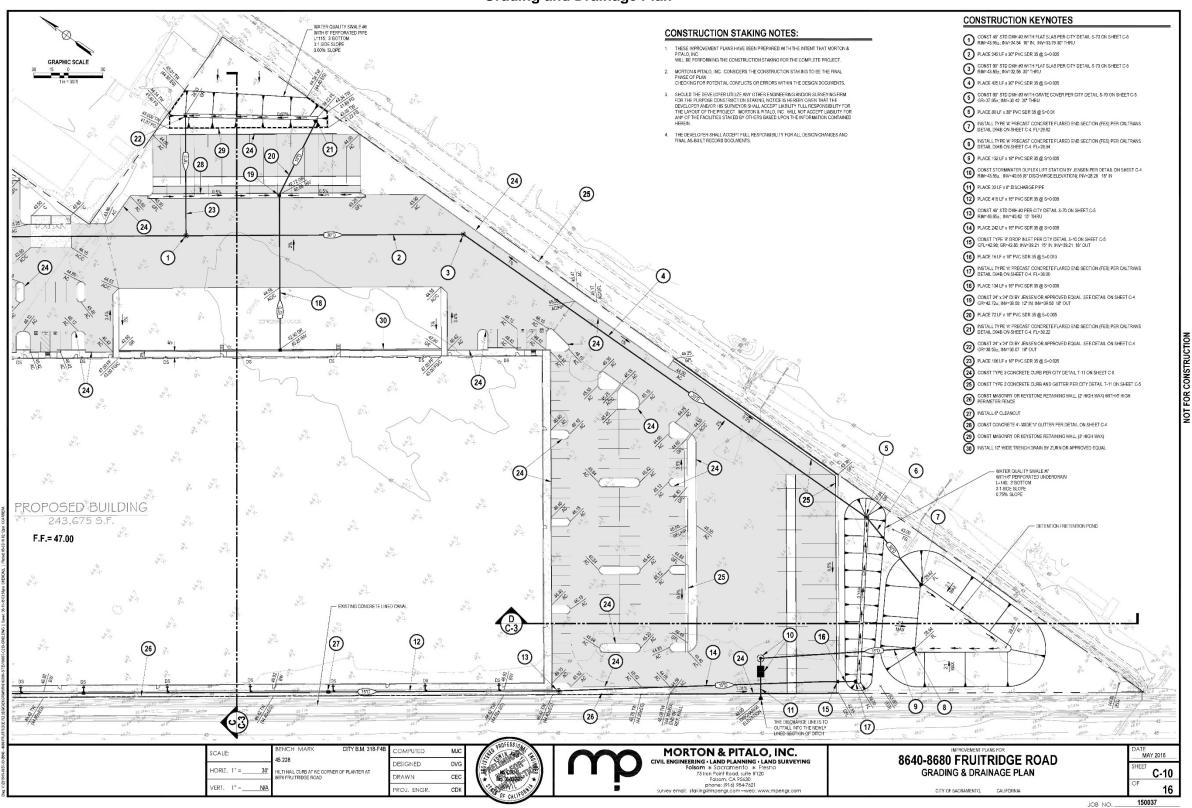


Figure 7
Grading and Drainage Plan



#### SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION

#### LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES AND ENERGY

#### Introduction

The California Environmental Quality Act (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 initial study 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 project on these resources.

#### **Discussion**

#### Land Use and Planning

The proposed project site is located in an urbanized portion of the City of Sacramento on a parcel that is occupied by an existing industrial building. The project site is located in an area known as the Florin/Fruitridge Industrial Park district of Sacramento. As described above, the project site is bounded by a City-maintained, concrete-lined drainage ditch on the west and south (under the jurisdiction of Pacific Gas & Electric (PG&E)), Fruitridge Road on the north, and existing industrial development on the east. Florin Perkins Road is located west of the project site, 88<sup>th</sup> Street is near the site to the east, and Elder Creek Road to the south. The existing CCTC railroad tracks, which run parallel to the site, are approximately 40 feet west of the site's western boundary and beyond the tracks are parcels occupied with industrial uses.

The proposed project site is designated as an Industrial land use by the City's 2035 General Plan and the site has a City of Sacramento zoning designation of (M-2(S)). All of the parcels surrounding the proposed project site are zoned Heavy Industrial (M-2(S)). In addition, the project is surrounded on all sides by parcels that are designated Industrial by the City of Sacramento 2035 General Plan.

The 2035 General Plan identifies Industrial land uses as areas that represent the built form typically associated with manufacturing, warehousing, and other industrial activities. Development patterns associated with industrial uses can vary significantly, with block sizes typically large and varied in terms of shape. Industrial area street systems are typically designed to serve large blocks (i.e., rather than having uses fit into a prescribed block and street pattern), and are characterized by a limited number of streets with few interconnections. The Industrial land use designation provides for employment generating uses that may produce loud noise or noxious odor and tend to have a high volume of truck traffic. Allowable uses in the Industrial land use designation include:

- Industrial or manufacturing that may occur within or outside a building;
- Office, retail and service uses that provide support to employees; and
- Compatible public, quasi-public, and special uses.

The Industrial land use designation should not be located adjacent to a residential neighborhood or center without substantial buffers (employment center low rise, parks, greenways, or open space).

According to Title 17 of the City of Sacramento Zoning Code, the purpose of the M-2(S) zone is to permit the manufacture or treatment of goods. The maximum building height for structures in the M-2(S) zones is 70 feet. The maximum Floor Area Ratio (FAR) allowance is 1.0 per the 2035 General Plan's industrial land use designation. Setbacks are required in the M-2(S) zone to provide more attractive and un-crowded developments.

The M-2(S) zoning designation permits the development of different types of residential, commercial/institutional, and industrial/agricultural uses with and without conditional use permits as identified in Section 17.220.410 M-2(S) Zone – Permitted Uses of the Sacramento City Code. The construction of a 243,675-sf industrial warehouse building would be consistent with uses permitted on land designated Industrial within the 2035 General Plan and, therefore, would be consistent with the type and intensity of development anticipated for the site, as analyzed in the General Plan. The proposed project would also be consistent with development standards of the M-2(S) zoning designation in regard to building height. The new warehouse building is proposed to be 39.5 feet tall. This building height is compliant with the height standard for buildings in areas zoned as M-2(S). Based on the information provided above, the proposed project would not conflict with any applicable land use plans or zoning regulations.

The proposed project would be located on a parcel that is currently occupied by industrial uses in an urbanized/industrialized portion of the City of Sacramento where similar industrial uses exist. Therefore, implementation of the proposed project would not physically divide an established community. Furthermore, the proposed project site is not located in an area covered by a habitat conservation plan or natural community conservation plan.

Based on the information provided above, implementation of the proposed project would not have a significant impact related to land use and planning.

#### Population and Housing

The proposed project consists of construction of an industrial warehouse, loading docks, and associated parking. Implementation of the project would not directly or indirectly induce population growth, as only 20 new employees would be hired due to the proposed project. Housing would not be created or destroyed with implementation of the proposed project, and people or housing

would not be displaced. Accordingly, construction or replacement of housing would not be required. Therefore, the proposed project would have no impact associated with population and housing.

Population increases in areas can occur indirectly when new projects are developed and the project requires introduction of infrastructure (infrastructure includes roadways, utilities, water mains, sewer mains, etc.) into an area where it does not already exist. The area surrounding the proposed project site is fully built out with different types of industrial uses served by existing utilities and infrastructure. The proposed project site is served by existing utilities (gas and electrical lines), as well as existing infrastructure (Fruitridge Road and other surrounding roadways, water lines, sewer lines, etc.) and additional services would not be required to serve the proposed project, once operational. Existing utilities and infrastructure would be connected to the proposed warehouse building. Therefore, the proposed project would not indirectly induce population growth due to the introduction of new infrastructure.

The proposed project would not include the development of new housing that would increase the City of Sacramento's current housing stock. In addition, the proposed project is not located on a parcel occupied by residential units that would need to be removed prior to project implementation. The proposed project would, therefore, not displace substantial numbers of existing housing or require the construction of replacement housing to accommodate displaced residents.

Based on the information above, the proposed project would not have an impact on population and housing in the City of Sacramento.

#### 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 highly disturbed and has been previously developed, and the site is located in an urban area surrounded by industrial development. Due to the regularly disturbed nature of the site associated with the existing uses, the site consists predominantly of ruderal vegetation and 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). In addition, the site is not designated or zoned for agricultural uses, nor is the land under a Williamson Act contract. Therefore, the proposed project would have no impact on agricultural or forestland resources.

#### **Energy**

The proposed warehouse structure would be subject to Titles 20 and 24 of the California Code of Regulations, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes goals (see 2035 General Plan Energy Resources Goal U 6.1.1) and related policies to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential

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developers, coordination with local utility providers, and recruitment of businesses that research and promote energy conservation and efficiency.

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

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

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

#### **Environmental Setting**

The proposed project site is situated on the east side of the CCTC rail alignment and south of Fruitridge Road. The project site is bordered by a towing business and recycling/equipment yards on the east. A seven- to nine-foot-deep concrete-lined drainage ditch is along the westerly edge of the property adjacent to the rail alignment. The project site is relatively flat, disced with minimal surface vegetation, and surrounded by chain link fencing. A single-story block masonry and metal building, a former building slab surrounded by asphalt pavement, and a depressed loading dock along the south side of the former building slab currently exist on-site.

#### 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 project would:

- Create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors; or
- 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 General Plan 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 proposed 2035 General Plan could 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. Because these potential, new sources of light would be similar to the current urban setting in amount and intensity of light, 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 and rural residential uses.

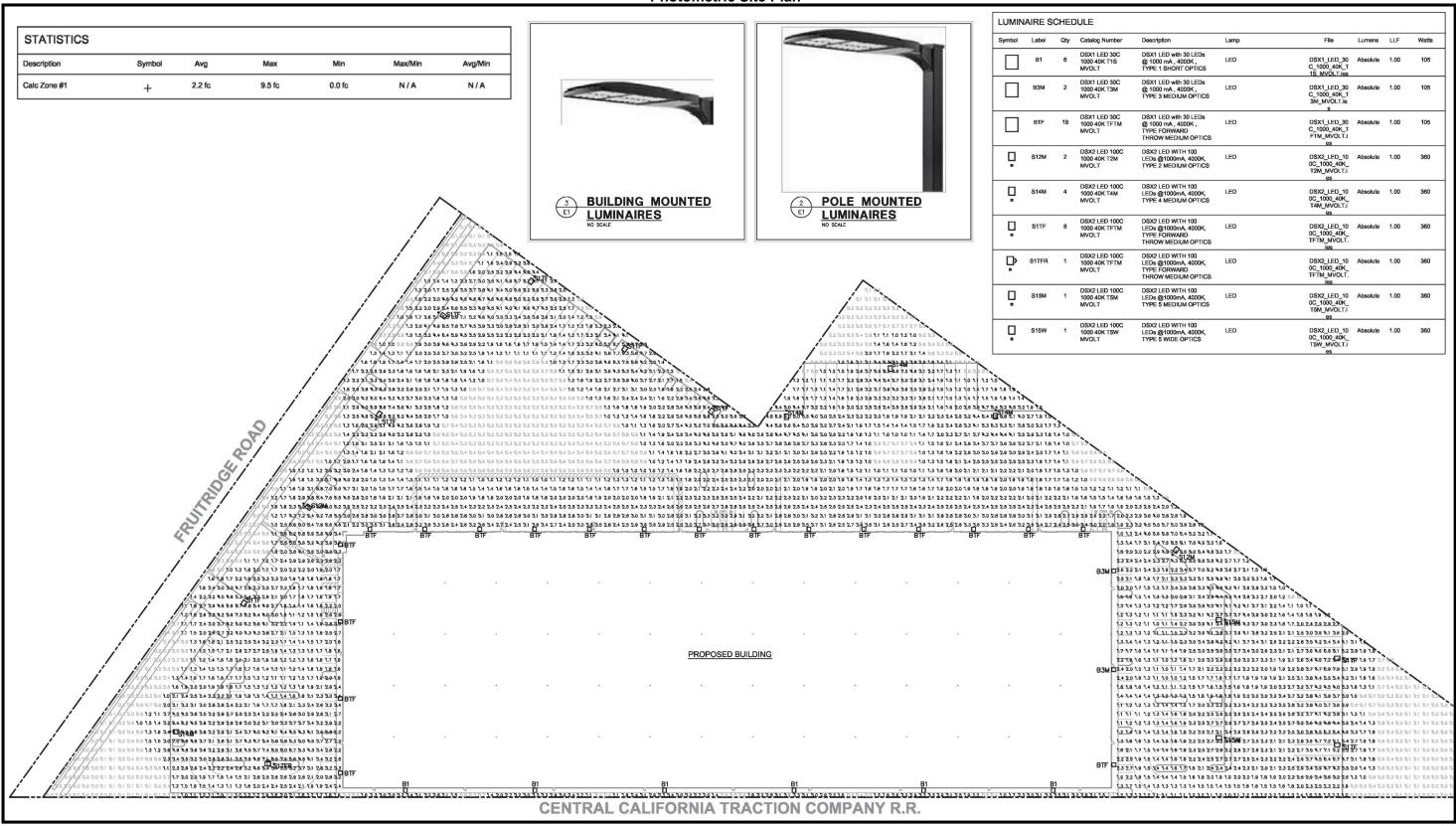
Because the City of Sacramento is mostly built out with a level of ambient light that is typical of and consistent with the urban character of a large city and new development allowed under the 2035 General Plan would be subject to the General Plan policies, building codes, and (for larger projects) design review, 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. Therefore, the additional lighting that could be created as a result of the 2035 General Plan would continue to be typical of the existing ambient light already present in the City and would have a less-than-significant environmental effect.

The proposed project site is located in an area designated and zoned for industrial uses, and the site is surrounded on all sides by an area dominated by light manufacturing, warehousing, distribution, high-quality manufacturing, assembly, research and development, and related industrial supporting uses. The nearest existing sensitive receptors to the project site that could be affected by light or glare are travelers along Fruitridge Road and the rural, single-family residences located nearly 3.500 feet east of the project site along Osage Avenue.

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.

The proposed project would include the installation of 44 new building- or pole-mounted luminaires. Figure 8, Photometric Site Plan, demonstrates the general photometric schedule for the proposed project site. Due to the placement of the proposed lights, and the requirement for shielding, the lighting intensities at the project site property lines are relatively minimal, ranging from a minimum of 1.0 foot-candles (fc) to a maximum of 4.8 fc.

Figure 8
Photometric Site Plan



Thus, permanent sources of light would result from the warehouse building; however, day or nighttime views in the area would not be affected because the project would be required to adhere to General Plan Policy LU 6.1.14 that requires lighting to be shielded and directed downward.

As seen in Figure 8, light generated from the proposed project would not be cast onto oncoming traffic on Fruitridge Road and sensitive residential receptors are not located within the vicinity of the project site. Therefore, the new source of light generated from the proposed project would not be considered substantial.

Due to the proposed use of the project, the building would include minimal glass and would not generate a substantial amount of glass consistent with Policy ER 7.1.4. In addition, the proposed building would be setback from Fruitridge Road to limit any glare that could cause a public hazard or annoyance. Furthermore, the proposed project is consistent with surrounding uses and with the type and intensity of use designated in the Master EIR.

The proposed project would comply with all applicable General Plan policies related to minimizing light and glare and the project would result in relatively minimal new lighting intensities surrounding the site. In addition, sensitive residential receptors are not located in the vicinity of the site. Therefore, the project would result in a *less-than-significant* impact related to creation of a source of glare that would cause a public hazard or annoyance or creation of a new source of light that would be cast onto oncoming traffic or residential uses.

#### **Question C**

The City of Sacramento is primarily built out; however, new development associated with the 2035 General Plan could result in changes to important scenic resources as seen from visually sensitive locations. As described above under "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. These 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. This is further complemented by Policy ER 7.1.2, which states that the City shall require new development be located and designed to visually complement the natural environment/setting when near the Sacramento and American Rivers, and along streams.

With adherence to these policies, buildout of the 2035 General Plan would not substantially alter views of important scenic resources from visually sensitive areas. According to the Master EIR, with buildout of the 2035 General Plan, impacts related to interference with important existing scenic resources or degrading views of important existing scenic resources, as seen from a visually sensitive, public location would be less than significant.

#### 8670 FRUITRIDGE INDUSTRIAL WAREHOUSE (PROJECT DR16-016)

NITIAL STUDY

The proposed project site currently contains one 12,840-sf industrial building and a 54-space parking lot on 0.75 acres (APNs -002 and -003) of the approximately 14-acre site. The project site is otherwise vacant and highly disturbed. Three parcels (APNs -019, -025 and -026) are disced and contain sparse, low ruderal vegetation. A few shrubs and trees occur along the site's boundary fences and broken concrete pieces and gravel/rock are strewn in some areas. See Figure 9 through Figure 13 for photographs of the project site's existing aesthetic conditions.

The existing warehouse building would be demolished as part of the project and a 243,675-sf industrial warehouse would be constructed. Associated loading docks, lighting, and parking would be included in the project as well. The proposed warehouse building would be a 39.5-foot-tall concrete tilt-up structure with metal roofing. The proposed project would be not be designated or recognized as an important scenic resource and would be consistent with the type and intensity of land use anticipated for the site in the City's General Plan.

The proposed project site is currently surrounded on all sides by other industrial and manufacturing land uses, such that implementation of the project would not result in any change to the visual character of the project area. In addition, the project site is not located in the vicinity of any views that are identified within the City's General Plan as scenic resources or vistas. Therefore, overall, the proposed project would result in a *less-than-significant* impact related to substantially degrading the existing visual character of the site or its surroundings.

#### **Mitigation Measures**

None required.

#### **Findings**

The project would not have any project-specific environmental effects relating to Aesthetics.

Figure 9
Viewpoint Locations





Figure 10
Viewpoint #1 - West across the Center of the Proposed Project Site



Figure 11
Viewpoint #2 - North from the South End of the Proposed Project Site



Figure 12 Viewpoint #3 - South from Near Fruitridge Road



Figure 13 Viewpoint #4 - Looking West of the Ditch along Fruitridge Road

		T		T
	Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. <u>AIR</u>	<u>R QUALITY</u>			
Would	I the proposal:			
A)	Result in construction emissions of NO <sub>x</sub> above 85 pounds per day?			X
B)	Result in operational emissions of NO <sub>x</sub> 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?			Х
C)	Result in PM <sub>10</sub> concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard?			Х
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)?			Х
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?		V	Х
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. The terrain in the valley is flat and approximately 25 feet above sea level.

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, SMAQMD has developed the *Guide to Air Quality Assessment in Sacramento County*. 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 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 project site is located in an industrial area, with the nearest existing sensitive receptors being the rural, single-family residences located nearly 3,500 feet east of the project site along Osage Avenue. It should be noted that the former aggregate mining site associated with the Teichert Perkins plant located approximately 2,200 feet northeast of the site is currently planned for the future development known as the Aspen 1-New Brighton project, which would include residential, commercial, an elementary school, an urban farm, parks, and open space.

#### **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.

In September 2006, then-Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, which requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. AB 32 delegated the authority for implementation to the CARB and directs the CARB to enforce the statewide cap. In accordance with AB 32, CARB prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008 and revised in in 2011.

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 City-Wide policies and programs that are supportive of reducing GHG emissions. A CAP Consistency Review Checklist has been prepared by the City in order to provide a streamlined review process for proposed development projects and is attached to this IS/MND as Appendix A.

#### **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<sub>x</sub> above 85 pounds per day;
- Operational emissions of NO<sub>x</sub> or ROG above 65 pounds per day;
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- PM<sub>10</sub> concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. However, if project emissions of NO<sub>x</sub> and ROG are below the emission thresholds given above, then the project would not result in violations of the PM<sub>10</sub> ambient air quality standards;
- 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 it 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 in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, 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 fronting elevation 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 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, 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 6.1.8 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, ER 6.1.9 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 Development Services Department, 300 Richards Boulevard, 3<sup>rd</sup> 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**

#### Questions A and B

In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the SMAQMD has established recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors (i.e., reactive organic compounds (ROG) and oxides of nitrogen (NO<sub>X</sub>)), as the area is under nonattainment for ozone. The SMAQMD's recommended thresholds of significance for ROG and NO<sub>X</sub> 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			
NOx	85 lbs/day	65 lbs/day			
ROG	-	65 lbs/day			
Source: Sacramento Metropolitan Air Quality Management District. May 2015.1					

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<sub>X</sub> and operational ROG and NO<sub>X</sub> emissions have been estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 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

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<sup>&</sup>lt;sup>1</sup> Sacramento Metropolitan Air Quality Management District. *SMAQMD Thresholds of Significance Table*. Available at: http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf. May 2015. Accessed May 2016.

speed, etc. However, where project-specific data is available, such data should be input into the model. Accordingly, based on project-specific information provided by the project applicant, the following assumptions were made for the proposed project's modeling:

- Construction was assumed to commence in August 2016 and the project would be fully operational by April 2017;
- Demolition of the existing 12,840-square-foot warehouse would be necessary;
- Under the worst-case scenario, it was assumed that a total of 17.4 acres would be disturbed during grading of the site; however, only approximately 14 acres are expected to be graded as part of the project;
- An average daily trip rate of 8.33 was assumed, based on the project's proposed total building square footage and the total new daily trips as presented in the Transportation and Circulation section of this IS/MND; and
- Compliance with the current California Building Energy Efficiency Standards Code.

The results of the proposed project's emissions estimations 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 B to this IS/MND.

#### Construction Emissions

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

Table 2						
Maximum Unmitigated Project Construction NO <sub>X</sub> Emissions						
	Project Emissions	SMAQMD Threshold of Significance				
Pollutant	(lbs/day)	(lbs/day)				
NO <sub>X</sub>	47.28	85				
Source: CalEEMod, May 2016 (see Appendix B).						

As shown in the table, the proposed project's maximum unmitigated construction-related  $NO_X$  emissions would be below the applicable SMAQMD 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). Accordingly, the proposed project is required to comply with all applicable SMAQMD rules and regulations for construction, including, but not limited to, Rule 403 (Fugitive Dust), Rule 404 (Particulate Matter), and Rule 442 (Architectural Coatings). 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 help to ensure that construction emissions are minimized.

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

# Operational Emissions

Day-to-day activities such as future employee vehicle and truck trips to and from the project site would make up the majority of the mobile emissions. Emissions would also occur from area sources such as natural gas combustion from heating mechanisms, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

The CalEEMod modeling assumptions for the proposed project are presented above. As noted, the modeling included compliance with the 2013 California Building Energy Efficiency Standards Code. All buildings within the State of California are required to comply with the mandatory standards within the 2013 California Building Energy Efficiency Standards Code. The proposed project's compliance with such would be verified as part of the City's building approval review process. According to the CalEEMod results, 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. Therefore, impacts related to the proposed project's operational emissions of  $NO_X$  and ROG would be less than significant.

Table 3 Maximum Unmitigated Project Operational NO <sub>x</sub> and ROG Emissions				
Project Emissions SMAQMD Thresholds of Significance Pollutant (lbs/day) (lbs/day)				
NO <sub>X</sub>	8.53	65		
ROG	12.11	65		
Source: CalEEMod, May 2	2016 (see Appendix B).			

#### Conclusion

Because the proposed project would not result in construction emissions of  $NO_X$  above 85 lbs/day or operational emissions of  $NO_X$  or ROG above 65 lbs/day, impacts would be **less than significant**.

## Question C

Adopted 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 impacts would be *less than significant*.

# **Question D**

As the region is designated nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>, the SMAQMD has recently adopted mass emissions thresholds of significance for PM<sub>10</sub> and PM<sub>2.5</sub>, which are presented in Table 4.

Table 4						
SMA	SMAQMD Thresholds of Significance for PM <sub>10</sub> and PM <sub>2.5</sub>					
	Construction Operational Operational					
Pollutant	Thresholds (lbs/day)	Thresholds (lbs/day)	Thresholds (tons/yr)			
PM <sub>10</sub>	80	80	14.6			
PM <sub>2.5</sub>	82	82	15			
Source: SMAQMD, May 2015.						

In order to determine whether the proposed project would result in PM emissions in excess of the applicable thresholds of significance presented above, the proposed project's construction and operational  $PM_{10}$  and  $PM_{2.5}$  emissions have been estimated using CalEEMod with the same assumptions as listed above applied. 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 PM₁₀ and PM₂.₅						
Pollutant	Project Construction Construction Emissions (lbs/day) (lbs/day) Project Operational Emissions (lbs/day) (lbs/day) (lbs/day) (lbs/day) Project Operational Operational Emissions Thresholds (lbs/day) (lbs/day) (tons/yr) (tons/yr)					
PM <sub>10</sub>	9.17	80	5.93	80	1.04	14.6
PM <sub>2.5</sub>	5.45	82	1.66	82	0.29	15
Source: Cal	IEEMod, May 2016	(see Appendix B).				

Therefore, the proposed project is not expected to result in  $PM_{10}$  concentrations equal to or greater than five percent of the state AAQS, and impacts would be *less than significant*.

# Questions E through G

The proposed project would not introduce new sensitive receptors to the area. Accordingly, the proposed project would not be considered a sensitive receptor. The project site is surrounded by existing industrial development. The nearest existing sensitive receptors to the site would be the rural, single-family residences located nearly 3,500 feet east of the project site along Osage Avenue. It should be noted that the former aggregate mining site associated with the Teichert Perkins plant located approximately 2,200 feet northeast of the site is currently planned for future development known as the Aspen 1-New Brighton project, which would include residential, commercial, an elementary school, an urban farm, parks, and open space.

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 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 major public streets in the project area include Fruitridge Road and South Watt Avenue. Fruitridge Road has a daily traffic volume of 10,700 between Florin Perkins Road and South Watt Avenue and operates at a level of service (LOS) of A. South Watt Avenue has a daily traffic volume of 23,700 from Jackson Road to Fruitridge Road and of 20,700 from Fruitridge Road to Elder Creek Road, which both operate at a LOS of F. The intersection of South Watt Avenue and Fruitridge Road operates at LOS D during the peak hours. Although the proposed project's increase in traffic volumes would contribute additional traffic to a roadway that already operates at LOS F and an intersection that already operates at LOS D, based on the daily traffic volumes discussed above, the proposed project would not result in an affected intersection experiencing more than 31,600 vehicles per hour. In addition, 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. Furthermore, the project would not create any substantial changes in the mix of vehicle types at any nearby intersection from County averages.

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, impacts related to such would be less than significant.

#### TAC Emissions

The CARB Handbook provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, rail yards, chrome platers, dry cleaners, and gasoline dispensing facilities. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM.

Construction-related activities could result in the generation of TACs, specifically DPM, from onroad haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. All construction equipment and operation thereof would be regulated per the State's In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources, and would be required to implement the SMAQMD's Basic Construction Emissions Control Practices (BCECP). In addition, construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City's Noise Ordinance, and would likely only occur over portions of the project site at a time. Furthermore, according to research conducted by CARB, DPM dissipates relatively quickly in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. The nearest existing sensitive receptor to the site is located nearly 3,500 feet east of the project site, and the proposed future residents associated with the Aspen 1-New Brighton project would be located approximately 2,200 feet northeast of the project site. Accordingly, concentrations of DPM resultant of project construction activities would not be expected to be substantial at the nearest sensitive receptor. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to would correlate to a higher health risk. Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the proximity to the nearest sensitive receptors, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time during project construction would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Operations on the project site are anticipated to involve a high percentage of truck traffic. The CARB's Handbook includes facilities (distribution centers) with associated diesel truck trips of more than 100 trucks per day as a source of substantial TAC emissions and recommends a setback of 1,000 feet from such facilities. The proposed project would involve a total 946 daily trips, which equates to approximately 473 vehicles per day entering and exiting the site, a portion of which would be associated with truck traffic. However, the nearest sensitive receptor is located nearly 3,500 feet east of the project site, and the proposed future residents associated with the Aspen 1-New Brighton project would be located approximately 2,200 feet northeast of the project site. Thus, according to the CARB's Handbook, an adequate setback distance would be provided from the proposed project site to the nearest sensitive receptor. In addition, as stated above, DPM dissipates relatively quickly in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. It should be noted that State law restricts truck idling in excess of five minutes. Based on the above, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM associated with on-site operations would be low.

As discussed above, the project site is not located in an area identified as likely to contain NOA. Thus, sensitive receptors would not be exposed to NOA as a result of the proposed project.

Overall, the proposed project would not result in TAC exposures that would create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

#### Conclusion

As discussed above, the proposed project would not cause or be exposed to substantial pollutant concentrations, including localized CO or TAC emissions, including DPM and NOA. Therefore, exposure of sensitive receptors to substantial pollutant concentrations would not occur and a *less-than-significant* impact would occur.

## Question H

The City has developed a CAP Consistency Review Checklist to provide a streamlined review process for proposed development projects. Projects that demonstrate consistency with the CAP would be expected to result in a less-than-significant impact related to GHG emissions and global climate change. The project's CAP Consistency Review Checklist is included as Appendix A.

As determined by the project's CAP Consistency Review Checklist, the project is predominantly consistent with the City's CAP. However, per the CAP, the project is required to reduce GHG emissions associated with energy demand by including on-site renewable energy systems. The project applicant does not intend to include on-site renewable energy, but, the CAP Consistency Review Checklist suggests other GHG reduction measures that may be substituted for an on-site renewable energy system, including exceeding the minimum requirements of the 2013 California Building Energy Efficiency Standards Code. In addition, in order to comply with the CAP, the proposed project must implement Tier 1 water efficiency and conservation standards of the 2013 California Green Building Standards Code (CALGreen Code). Because such a level of design is not yet available for the project, verification of compliance with the Tier 1 CALGreen Code standards cannot be made at this time. Therefore, verification of exceedance of the California Building Energy Efficiency Standards Code and compliance with the Tier 1 CALGreen Code standards would be necessary at the time building plans are developed. Without full compliance with the CAP, the proposed project could interfere with or impede the City's efforts to reduce GHG emissions, and impacts would be considered potentially significant. Implementation of Mitigation Measures 2-1 and 2-2 would reduce the above impact to a *less-than-significant* level.

# **Mitigation Measures**

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

- 2-1 Prior to issuance of Building Permits, the project applicant shall demonstrate on the plans via notation how the project design would exceed the 2013 California Building Energy Efficiency Standards Code by a minimum of five percent. The plans shall be subject to review and approval by the Community Development Department.
- 2-2 Prior to issuance of Building Permits, the project applicant shall submit a CALGreen checklist demonstrating how the project meets the 2013 CALGreen Tier 1 water efficiency and conservation standards. The checklist shall be subject to review and approval by the Community Development Department.

# 8670 FRUITRIDGE INDUSTRIAL WAREHOUSE (PROJECT DR16-016)

# **Findings**

All additional significant environmental effects of the project relating to Air Quality can be mitigated to a less-than-significant level.

	Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
	LOGICAL RESOURCES 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?			Х
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)?			Х

Sycamore Environmental Consultants, Inc. conducted a biological evaluation of the proposed project site. The report evaluates the potential for occurrences of natural resources regulated by Section 404/401 of the Federal Clean Water Act, the Federal or State Endangered Species Acts, the California Native Plant Protection Act, the California Department of Fish and Wildlife (CDFW) as a California species of special concern or fully-protected species, or a plant ranked 1 or 2 by the California Native Plant Society (CNPS) Inventory.

Sycamore Environmental obtained a list from the U.S. Fish and Wildlife Service (USFWS), Sacramento Field Office, which reports federal-listed species that could potentially be affected by projects located within the Sacramento East U.S. Geological Survey (USGS) quadrant. The California Natural Diversity Database (CNDDB) was queried for the Sacramento East and eight adjacent quads. Species from the databases were reviewed for their potential to be affected by implementation of the proposed project. In addition, Sycamore Environmental conducted a site survey on October 20, 2015 and Ms. Orsolini, an ISA certified arborist, conducted a tree survey on the site on May 3, 2016.

## **Environmental Setting**

Although the majority of the City is developed with residential, commercial, and other urban development, valuable plant and wildlife habitat still exists. These natural 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. These habitats and their general locations are discussed briefly below.

The project site is highly disturbed. Parcels (-025 and -026) are disked and contain sparse, low ruderal vegetation. A few shrubs and trees occur along boundary fences. On Parcel -019, root sprouts are growing where trees were removed several years ago. Pieces of broken concrete and strewn gravel/rock exist in some areas. Parcels -002 and -003 are developed and contain pavement, structures, and landscaping. Parcel -019 contained a residence, outbuilding, and mature trees until approximately 2012, at which time the structures and trees were removed.

Parcel -019 currently contains ruderal vegetation similar to the larger parcels, as well as young trees that are sprouting from seed or rootstock left over from the landscaping around the removed residence.

## <u>Trees</u>

The City of Sacramento defines City street trees, public trees, and private trees in regards to where the tree is growing, irrespective of size (Sacramento City Code 15.56.020). The City defines a "heritage tree" based on four criteria summarized below from Sacramento City Code 15.56.020:

- 1. By size (any tree with a circumference of 100 inches or more);
- 2. By species (any native oak, buckeye, or sycamore with a circumference of 36 inches or more);
- 3. By location in a riparian zone (any tree with a circumference of 36 inches or more in a riparian zone); and
- 4. Trees designated by the City Council as heritage trees.

The City adopted a Tree Preservation Ordinance to protect trees as an important resource for the community. Heritage trees are likely to provide high quality nesting and roosting sites for wildlife. When circumstances do not allow for retention of trees, permits are required to remove heritage trees that are within the City's jurisdiction. The Ordinance (per Chapter 12.64 of the Sacramento City Code) states that heritage trees are protected in order to "promote scenic beauty, enhance property values, reduce soil erosion, improve air quality, abate noise and provide shade to reduce energy consumption." In addition, the Street Tree Ordinance (12.56.060) states that "No person shall remove, trim, prune, cut or otherwise perform any maintenance on any city street tree without first obtaining a permit from the director pursuant to Section 12.56.070." Any non-heritage street trees planned for removal will require a permit from the City.

The tree survey identified nine trees in the project study area. Two of the trees are native oaks. None of the nine trees have a diameter at breast height (dbh) greater than 12 inches. Due to the small size of all nine trees, none are classified as heritage trees. In addition, several non-heritage trees are located within the proposed project's Fruitridge Road right-of-way dedication. None of the trees are classified as City street trees.

# Waters and Wetlands

The majority of the project site contains vegetation and soils characteristic of uplands. Noticeable depressions or low areas that are likely to meet wetland criteria defined by the Corps of Engineers do not exist on the site. In addition, wetlands or waters of the U.S. subject to Section 404 of the Clean Water Act are not present in the study area. The project area contains two off-site ditches. One ditch is a roadside ditch that parallels the south side of Fruitridge Road along the northern edge of the project site. The ditch is not a realigned natural drainage, nor was the ditch dug in any known historical wetland.

The roadside ditch drains into the PG&E Ditch. The PG&E Ditch is a concrete-lined water conveyance structure. The PG&E Ditch is not identified on the National Wetland Inventory map (USFWS 2013) and wetlands were not identified next to the PG&E Ditch during the field survey. The PG&E Ditch outfalls into Morrison Creek, which is also concrete-lined at the outfall point.

Generally, ditches dug in uplands, including ditches constructed to convey stormwater runoff from a paved road, are not considered to be waters of the U.S. The Corps' reissuance of Nationwide Permits explains further:

The preamble to the Corps November 13, 1986, final rule states the [sic] non-tidal drainage and irrigation ditches excavated on dry land are generally not considered to be waters of the United States, but the Corps and EPA reserve the right on a case-by-case basis to determine whether a particular waterbody is a water of the United States (see 51 FR 41217). Joint guidance issued in December 2008 by EPA and the Corps provides additional clarification as to when ditches are and are not considered to be waters of the United States (see <a href="http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008\_12\_3\_wetlands\_CWA\_Jurisdiction\_Following\_Rapanos120208.pdf">http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008\_12\_3\_wetlands\_CWA\_Jurisdiction\_Following\_Rapanos120208.pdf</a>, pg. 12). [Federal Register, Vol. 77, No. 34, February 21, 2012, pgs. 10227-10228]

A new federal rule defining waters of the U.S. became effective in 2015. The new rule defining waters of the U.S. contains explicit language excluding such features from the definition of waters of the U.S. On October 9, 2015 a federal court stayed the implementation of the new rule nationally.

# **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:
  - o 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;
  - o 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).

## Special-Status Wildlife Species

The special-status wildlife species identified as having the potential to occur in the project vicinity are discussed in further detail below.

# Migratory Birds

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. An active killdeer nest was observed in the project study area during the May 2016 survey. Birds were not observed nesting in the small trees and shrubs on the project site.

## **Burrowing Owl**

The site provides marginal habitat for burrowing owl (*Athene cunicularia*), a California species of special concern. Burrowing owls often nest in ground squirrel burrows in areas with shorter vegetation. Vegetation is mostly short or absent on the project site; however, a few burrowing owl burrows exist on-site, although most are currently too small for burrowing. Burrowing owls or occupied burrows were not observed, but the presence of ground squirrels and burrows changes over time, and more suitable burrows could become established in the future. According to the biological resources report, more burrow opportunities exist on both sides of the PG&E Ditch.

## Swainson's Hawk

The site provides marginal foraging habitat for Swainson's hawk (*Buteo swainsoni*), a California threatened species. Swainson's hawk is more likely to forage in areas of irrigated agriculture. Trees large enough to support a Swainson's hawk nest do not exist within the project area. In addition, the project site appears to be disced. These activities limit the use of the site for foraging.

# Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) requires elderberry shrubs to inhabit an area. Elderberry shrubs do not exist on the project site. Several elderberry shrubs exist south of the site, generally along the CCTC railroad tracks. The nearest elderberry shrub is approximately 100 feet southwest of the southern tip of the site, across the PG&E Ditch and railroad tracks. The USFWS typically does not consider elderberry shrubs to be affected when the shrubs are at least 100 feet away from construction.

# Vernal Pool Fairy Shrimp/Tadpole Shrimp

The site does not contain vernal pools or seasonal wetlands; therefore, vernal pool fairy shrimp (*Branchinecta lynchi*) and tadpole shrimp (*Lepidurus packardi*) do not have the potential to exist on-site.

## Special-Status Plant Species

The special-status plant species identified as having the potential to occur in the project vicinity are discussed in further detail below.

## Sanford's Arrowhead

Sanford's arrowhead (Sagittaria sanfordii) is an aquatic emergent perennial herb that may colonize or persist in highly disturbed waterways. The plant has been observed growing in concrete cracks of channels in the City of Sacramento, including the PG&E Ditch adjacent to the project site. Sanford's arrowhead is evident and identifiable during the plant's bloom time from May through October (CNPS 2013). During the winter, Sanford's arrowhead may exist simply as

underground structures (tubers), buried in mud, and below winter water levels. Sanford's arrowhead is a CNPS list 1B plant. The closest CNDDB record for Sanford's arrowhead was located approximately two miles northeast of the project study area. During surveys of the project site in 2015 and 2016, Sycamore Environmental biologists found Sanford's arrowhead in the PG&E Ditch.

# 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 those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing):
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901):
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);
- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species
  of special concern to California Department of Fish and Game (CDFG); or
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

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

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the City. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy ER 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Wildlife, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR discussed biological resources in Chapter 4.3. The Master EIR concluded that policies in the General Plan, combined with compliance with the California Endangered Species Act, Natomas Basin HCP (when applicable) and CEQA would minimize the impacts on special-status species to a less-than-significant level (see Impact 4.3-1), and that the General Plan policies, along with similar compliance with local, state and federal regulation would reduce impacts to a less-than-significant level for habitat for special-status invertebrates, birds, amphibians and reptiles, mammals and fish (Impacts 4.3-3-6).

Given the prevalence of rivers and streams in the incorporated area, impacts to riparian habitat is a common concern. Riparian habitats are known to exist throughout the City, especially along the Sacramento and American rivers and their tributaries. The Master EIR discussed impacts of development adjacent to riparian habitat that could disturb wildlife species that rely on these areas for shelter and food, and could also result in the degradation of these areas through the introduction of feral animals and contaminants that are typical of urban uses. The California Department of Fish and Wildlife (CDFW) regulates potential impacts on lakes, streams, and associated riparian (streamside or lakeside) vegetation through the issuance of Lake or Streambed Alteration Agreements (SAA) (per Fish and Game Code Section 1602), and provides guidance to the City as a resource agency. While there are no federal regulations that specifically mandate the protection of riparian vegetation, federal regulations set forth in Section 404 of the Clean Water Act address areas that potentially contain riparian-type vegetation, such as wetlands.

The General Plan calls for the City to preserve the ecological integrity of creek corridors, canals and drainage ditches that support riparian resources (Policy ER 2.1.5) and wetlands (Policy ER 2.1.6) and requires habitat assessments and impact compensation for projects (Policy ER 2.1.10). has adopted a standard that requires coordination with state and federal agencies if a project has the potential to affect other species of special concern or habitats (including regulatory waters and wetlands) protected by agencies or natural resource organizations (Policy 2.1.11).

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. While this would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the 2035 General Plan. Given the extent of urban development designated in the General Plan, the preservation and/or restoration of riparian habitat would likely occur outside of the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact. (Impact 4.3-7)

#### **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 would include the demolition of the existing on-site structure and the construction of an industrial storage warehouse and associated loading docks and parking. Due to the age of the existing on-site structure, the potential for asbestos-containing materials and lead-based paint exists; however, as discussed in further detail in the Hazards section of this IS/MND, asbestos-containing materials were determined not to be present at the existing structure and the mitigation measures set forth in this IS/MND would reduce any potential impacts related to lead-based paint to a less-than-significant level. Operation of the project would include

storage of carbon fiber for the Mitsubishi Rayon Carbon Fiber and Composites, Inc. plant. The proposed project would not include any manufacturing or handling of hazardous materials.

Because 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, the proposed project would be considered to result in a *less-than-significant* impact related to creating a potential health significant hazard associated with such.

#### Question B

The following discussion of the proposed project's potential impacts related to special-status plant and animal species is based on the results of the biological evaluation of the proposed project site conducted by Sycamore Environmental.

# Migratory Birds

Although birds were not observed nesting in the small trees and shrubs on the project site, an active killdeer nest was observed in the project study area during the May 2016 survey. Due to the potential for migratory birds to occupy the site prior to construction, preconstruction surveys are recommended, as well as avoidance of the removal of on-site trees within the project site during the breeding season in order to avoid the potential take of nesting birds. Therefore, implementation of Mitigation Measure 3-1 would be required in order to ensure that any potential impacts related to migratory birds would be reduced to less than significant.

# **Burrowing Owl**

Due to the burrow opportunities associated with the nearby PG&E Ditch and the potential for suitable burrows to become established prior to project construction, burrowing owl may not be excluded from the site during the breeding season. Accordingly, implementation of Mitigation Measure 3-2 would be required in order to ensure that any potential impacts related to burrowing owl would be reduced to less than significant.

#### Swainson's Hawk

As the on-site trees are not large enough to support Swainson's hawk nests, the proposed project would not impact Swainson's hawk nests or nesting habitat. In addition, the project site conditions limit the potential use of the site for Swainson's hawk foraging habitat. However, a portion of the project site is a fallow field, which is one vegetation type considered foraging habitat for Swainson's hawk. Thus, the proposed project would be considered to impact Swainson's hawk foraging habitat.

CDFW recommends that impacts to suitable Swainson's hawk foraging habitat within 10 miles of an active nest be mitigated by fee title acquisition or securing a conservation easement on suitable Swainson's hawk foraging habitat in the region. An active nest is one that was used during one or more of the last five years. According to the biological evaluation prepared for the proposed project, the nearest active nest is approximately 5.6 miles northwest of the project site at Sutter's Landing Park on the south side of the American River (CNDDB Occurrence #2213). According to the CDFW, for projects within 10 miles, but greater than five miles away, of an active nest, 0.50-acre of similar habitat per acre lost must be preserved. Therefore, with implementation of Mitigation Measure 3-3 below, the proposed project's impacts related to Swainson's hawk foraging habitat would be considered less than significant.

## Valley Elderberry Longhorn Beetle

The USFWS typically does not consider elderberry shrubs to be affected when the shrubs are at least 100 feet away from construction. Because the nearest existing elderberry shrub is located approximately 100 feet southwest of the southern tip of the site, across the PG&E Ditch and railroad tracks, the proposed project would not be expected to result in any impacts to valley elderberry longhorn beetle.

## Sanford's Arrowhead

The proposed project would include the construction of a storm drain outfall into the PG&E Ditch adjacent to the project site. The outfall would be installed in the area of the ditch that was previously reconstructed and does not contain any known occurrences of Sanford's arrowhead. Therefore, the proposed project would not result in any impacts to Sanford's arrowhead. Rather, according to the biological evaluation prepared for the proposed project, the additional input of stormwater from the project site into the PG&E Ditch could create a beneficial effect related to the growth of Sanford's arrowhead.

# City of Sacramento Tree Preservation Ordinance

As discussed above, the tree survey performed for the project site identified nine trees in the project study area. Due to the small size of all nine trees, none are classified as heritage trees. In addition, several non-heritage trees are located within the proposed project's Fruitridge Road right-of-way dedication. None of the trees are classified as City street trees. Therefore, the implementation of the project would not conflict with the City's Tree Preservation Ordinance.

# Conclusion

As discussed above, implementation of the proposed project could have the potential to affect migratory birds, burrowing owls, and Swainson's hawk; therefore, the project's impact would be potentially significant. Implementation of Mitigation Measures 3-1 through 3-3 would reduce the project's impact to a *less-than-significant* level.

#### Question C

As discussed above, wetlands or waters of the U.S. subject to Section 404 of the Clean Water Act are not present in the study area. It should be noted that the project area contains two off-site ditches. One ditch is a roadside ditch that parallels the south side of Fruitridge Road along the northern edge of the project site. The roadside ditch drains into the PG&E Ditch, which is a concrete-lined water conveyance structure. The roadside ditch is not a realigned natural drainage, nor was the ditch dug in any known historical wetland, and the PG&E Ditch is not identified on the National Wetland Inventory map (USFWS 2013) and wetlands were not identified next to the PG&E Ditch during the field survey. The PG&E Ditch outfalls into Morrison Creek, which is also concrete-lined at the outfall point.

Maintenance and repair activities were conducted by the City in the PG&E Ditch in 2015. Prior to conducting the repairs, the City contacted CDFW to determine if a Streambed Alteration Agreement was needed. CDFW determined that the City's maintenance activities did not need a Streambed Alteration Agreement because a man-made, concrete-lined channel with no natural flow is not subject to Streambed Alteration Agreement jurisdiction. The proposed project would include the installation of an outfall pipe from the proposed detention basin into the PG&E Ditch and a Streambed Alteration Agreement would not be required.

Because the proposed project site does not contain any wetlands or other regulatory waters and the proposed off-site infrastructure improvements would not occur within or near any wetlands or other regulatory waters, the project would result in a *less-than-significant* impact.

# **Mitigation Measures**

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

- 3-1 Prior to the issuance of a grading permit, a pre-construction nesting bird survey shall be conducted on, and within a zone of influence of, the project site. The zone of influence shall include those areas off of the project site where birds could be disturbed by earth-moving vibrations, noise, or tree and/or building removal. Accordingly, the nesting survey(s) must cover the project sites and an area around the sites' boundaries. If disturbance associated with the project would commence between March 1st and September 1st ("the nesting season"), the nesting surveys shall be completed 15 days prior to commencing with the work (note: If disturbance associated with the project would occur outside of the nesting season, no surveys shall be required). If common (non-special-status) birds are identified as nesting on or adjacent to the project site, a non-disturbance buffer of 75-feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with painted orange lath or via the installation of orange construction fencing. Disturbance within the buffer shall be postponed until a qualified ornithologist has determined that the young have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed. The preconstruction nesting bird survey shall be submitted for review and approval by the City of Sacramento Planning Division.
- Prior to any site disturbance activities during the breeding season, the project 3-2 contractor shall initiate preconstruction surveys of the project site to determine if burrowing owls are present during the non-nesting season (nesting season is active from February 1st through August 30th annually). The results of the preconstruction surveys shall then be submitted to the City of Sacramento Planning Division for review. If burrowing owls are not present, no further mitigation is required. If occupied burrows are found during the non-breeding season, the project contractor shall implement standard "passive relocation" measures to exclude burrowing owls from burrows that need to be disturbed, consistent with CDFW guidelines. If breeding owls are found on-site during the nesting season, the project contractor shall establish a no-disturbance buffer around nesting burrows until the nesting is completed. The buffer distance and verification of completion of nesting shall be determined by a qualified biologist with experience working with burrowing owls and construction activities. If it is not feasible to avoid removal of nesting burrows, the project contractor shall consult with the CDFW to determine if any options for active nest relocation are feasible.

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3-3 Prior to the issuance of a demolition permit, the preservation of land suitable for replacement Swainson's hawk foraging habitat shall be dedicated or obtained through the purchase of credits at a CDFW-approved mitigation bank by the project applicant at a ratio of 0.5:1 for all existing unpaved areas within the project site. The location of the replacement foraging habitat shall be coordinated with the CDFW, and shall be acquired prior to development of the project site.

# **Findings**

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

	Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
	TURAL RESOURCES the project:  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?			Χ

# **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. Discoveries in downtown Sacramento have shown that the area can be highly sensitive for both historic- and prehistoric-period archaeological resources. Native American burials and artifacts were found in 2005 during construction of the New City Hall and historic period archaeological resources can be found downtown due to the evolving development of the area and, in part, to the raising of the surface street level in the 1860s and 1870s, which created basements out of the first floors of many buildings.

## 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

Natural Investigations Company conducted a California Historical Resources Information System (CHRIS) records search with a 0.25-mile radius of the proposed project area at the North Central Information Center (NCIC) located in Sacramento, California on May 2, 2016.

According to the records search, 10 prior cultural resources studies have been completed within a 0.25-mile radius of the project; none of the 10 prior studies incorporated the proposed project area. Cultural resources have not been previously recorded within or immediately adjacent to the project area. Six historic-era resources have been recorded within the 0.25-mile search radius outside the project area, but historic-era resources do not exist on the proposed project site.

In addition, Natural Investigations Company conducted an intensive pedestrian survey of the six project parcels, totaling approximately 14 acres, on May 2, 2016. Additional cultural or historical resources were not observed or recorded during this field effort.

The project site is not located adjacent to a waterway and is primarily dry, which suggests that the project site has a low potential for containing prehistoric sites. The project site does not contain structures that could possibly yield important prehistoric or historic information. In addition, the project site has been entirely disturbed given the surrounding development and regular disking for weed abatement. Given the disturbed nature of the project site, surface cultural resources would not likely be found on-site during grading and construction. However, unknown resources below the surface could be encountered during grading and excavation. Therefore, the proposed project could have a potentially significant impact related to damaging or destroying prehistoric cultural resources. Implementation of Mitigation Measure 4-1 would reduce the impact to a *less-than-significant* level.

# **Question C**

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. Natural Investigations Company contacted the Native American Heritage Commission (NAHC) on April 22, 2016, 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 the search failed to indicate the presence of Native American sacred lands or traditional cultural properties in the immediate vicinity. The City of Sacramento distributed a project notification letter per AB 52. The mandatory 30 day response period closed on May 6, 2016 and the City did not receive a request for consultation. The City of Sacramento received one letter requesting information, but not consultation. As such, given the results of the NAHC sacred lands file search, and the existing disturbed, developed environment of the project site, the project would result in a *less-than-significant* impact to tribal cultural resources.

# **Mitigation Measures**

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

- 4-1 Prior to any ground-disturbing activities, subsurface archaeological testing shall be conducted on the APN 062-010-026 portion of the project site in the location of the proposed detention basin and the locations of the vegetated water quality swales. The subsurface archaeological testing shall be conducted by mechanical methods and shall be coordinated with, and monitored by, a qualified archaeologist who meets the Secretary of the Interior's Standards and Guidelines for Archaeology (36 CFR Part 61). The archaeologist shall have the authority to direct the equipment operator to remove the soils/sediments in narrow increments, as well as redirect or pause the mechanical equipment to safely examine the sidewalls or spoil piles and to allow for full assessment of potential finds. The archaeologist shall be present until the maximum excavation depth for the detention basin or water quality swales is reached, or until the archaeologist determines that observation of disturbed subsurface soils/sediments is not warranted. In the event of a discovery, mechanized testing shall be halted to allow the archaeologist to evaluate eligibility, assess effects, and potentially remove the find with consultation and approval by the City and any other relevant regulatory agency. If the find is determined to be significant, appropriate treatment measures, such as data recovery excavation, shall be implemented with consultation and approval by the City and any other relevant regulatory agency. At the end of the subsurface testing program, the archaeologist shall prepare a report and resource recordation forms on any finds for approval by the City and filing by the archaeologist with the NCIC. Should prehistoric resources or human remains of Native American origin be discovered, it is recommended that local tribes that have responded to the request for information regarding sacred lands or other heritage sites be notified.
- If archaeological artifacts or unusual amounts of stone, bone, or shell are uncovered during construction activities, work within 50 feet of the specific construction site at which the suspected resources have been uncovered shall be suspended. At that time, the property owner shall retain a qualified professional archaeologist. The archaeologist shall conduct a field investigation of the specific site and recommend mitigation deemed necessary for the protection or recovery of any archaeological resources concluded by the archaeologist to represent significant or potentially significant resources as defined by CEQA. The mitigation shall be implemented by the property owner to the satisfaction of the Planning Division prior to resumption of construction activity.
- In accordance with Section 7050.5 of the Health and Safety Code and Sections 5097.94 and 5097.98 of the Public Resources Code, if human remains are uncovered during project construction activities, work within 50 feet of the remains shall be suspended immediately, and the City of Sacramento Planning Division and the County Coroner shall be immediately notified. If the remains are determined by the Coroner to be Native American in origin, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The property owner shall also retain a professional archaeological consultant with Native American burial experience. The archaeologist shall conduct a field investigation of the specific site and consult with the Most Likely Descendant

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identified by the NAHC. As necessary, the archaeological consultant may provide professional assistance to the Most Likely Descendant including the excavation and removal of the human remains. The property owner shall implement any mitigation before the resumption of activities at the site where the remains were discovered.

# **Findings**

All additional significant environmental effects of the project relating to Cultural Resources can be mitigated to a less-than-significant level.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
S. 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?			Х

Raney Geotechnical prepared a Foundation Investigation<sup>2</sup> for the proposed project site in October 2012 and a Foundation Investigation Update<sup>3</sup> in March 2016.

# **Environmental Setting**

## Seismicity

The Sacramento 2035 General Plan Master EIR identifies all of the City of Sacramento as being subject to potential damage from earthquake groundshaking at a maximum intensity of 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. A major earthquake on any of these faults could cause strong groundshaking in the project area.

## Geology

The City of Sacramento is located in the Great Valley of California. The Great Valley is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The northern portion of the Great Valley is the Sacramento Valley drained by the Sacramento River, and its southern part is the San Joaquin Valley drained by the San Joaquin River. The valley is surrounded by the Sierra Nevada to the east, the Tehachapi Mountains to the south, Coastal Range to the west, and Cascade Range to the north.

# Project Site Soils

The Natural Resources Conservation Service (NRCS) provides maps and descriptions of soils throughout the United States. Soil survey information is regularly updated and posted to the NRCS Web Soil Survey. According to the NRCS Web Soil Survey conducted for the project site, the following soils exist on the site: Hedge loam, 0 to 2 percent slopes; San Joaquin silt loam, leveled, 0 to 1 percent slopes; and Xerarents-Urban land-San Joaquin Complex, 0 to 5 percent slopes.

<sup>&</sup>lt;sup>2</sup> Raney Geotechnical, Inc. Foundation Investigation, 8670 Fruitridge Warehouses. October 29, 2012.

<sup>&</sup>lt;sup>3</sup> Raney Geotechnical, Inc. Foundation Investigation Update, 8670 Fruitridge Warehouses. October 28, 2016.

#### Soil Hazards

Soil related risks and hazards typically include soil erosion by water/wind, shrink/swell potential (expansive soils), and subsidence. The following provides a brief description of each and the existing potential for each type of soil hazard to occur on the proposed project site.

The project site is relatively flat and covered with disced dry weeds. Concrete and asphalt concrete rubble as well as cobbles and rocks are scattered across most of the site.

The 11 test borings that were conducted on-site, as well as hand probing, indicate that the surface soils across most of the site have been disturbed by discing to depths of approximately six to nine inches. At Borings 9, 10 and 11, as well as at surface sample R2, loose disturbed fill materials were observed on the surface and extending to depths of near one to two feet. The fill materials were observed to consist of light gray-brown fine sandy silts with gravel, cobbles and rubble. Beneath the fills in Borings 9, 10 and 11, and from the surface of the other borings, native surface soils consisting of loose to medium dense, light brown to brown fine sandy silts were encountered. These surface soils were found to extend to depths varying from about two to five feet below the existing ground surface. Beneath the surface silts, lenses of very stiff, brown silty clays usually six to 12 inches thick were sometimes encountered. Underlying the surface silts and clay lenses, and extending to the 15-foot maximum depth of the test borings, interlayered dense/hard and variably cemented ("hardpan") soils were observed. These soils included light brown and orange-brown fine sandy to clayey silts, very silty fine sands, and very silty clays.

#### Soil Erosion

Soil erosion is the removal of material from the surface soil, which is the portion of the soil having an abundance of nutrients and organic matter required for plant growth to occur. The most common forces causing soil erosion include water and wind. Water and wind erosion can be very slow and hard to detect or it can be rapid and quite apparent. If soil is left without protection, the surface soil is exposed to the full force of wind and water and can be eroded in a short time (USDA, 2004). According to the NRCS, the soils on the proposed project site have a slight susceptibility to wind and water erosion.

#### Expansive Soils

The near surface silts on the site are low plasticity materials that are considered to be virtually non-expansive. The test borings show that clay lenses sometimes are present at depths of two to four feet below the ground surface. Such clays are considered capable of developing swelling pressures with variations in moisture content.

# Liquefaction

Soil liquefaction is the loss of strength of low- to no- cohesion soils (usually sands) that occurs when pore water pressure exceeds the confining stress (weight) of the soils. Liquefaction normally occurs only under saturated conditions and in soils with a low relative density. Liquefaction can occur during earthquakes as vibrations induce soils to readjust to a more compact state. Earthquake-induced liquefaction normally occurs only within the upper 50 to 60 feet of the soil profile.

#### Subsidence

Subsidence is defined as a lowering of the ground surface that can result from changes in soil or geologic conditions. Subsidence can occur due to natural processes or by human activities and in the City of Sacramento the three most common causes of subsidence include: groundwater withdrawal, oil and natural gas withdrawal, and the oxidation of peat in the Delta. Subsidence can cause damage to structures and infrastructures and has the potential to fracture/rupture pipelines, water drains, and dislocate wells. The proposed project site is not located in an area prone to subsidence.

#### Groundwater

The geotechnical investigation that was conducted on the proposed project site included 11 test borings to determine the condition and type of soil that currently underlies the project site and to determine the depth to the groundwater table on the project site. None of the 11 boring locations encountered groundwater and, according to the Foundation Investigation, groundwater maps indicate that the free groundwater table is located at depths of greater than 65 feet; therefore, the permanent groundwater table is not expected to be a factor in design or construction.

# 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**

## Geologic Hazards

The Foundation Investigation that was prepared for the proposed project site documents existing geologic and soil conditions near and on the proposed project site and included field investigations where 11 test borings were drilled in various locations on the project site. The test borings on the project site were conducted to determine the types of soil underlain the project site and to determine the depth of the groundwater table. The Foundation Investigation identifies 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, site drainage, pavement design, construction testing and observation, and review of final plans and specifications to ensure that the Foundation Investigation's recommendations have been implemented as part of the proposed project. As part of the Building Permit process, the investigation of soils report 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 proposed project site is not located on an AP Fault Zone and the nearest AP Fault Zone is where the Green Valley Connected Fault is located. Therefore, the potential for fault rupture on the proposed project site is considered to be low. The Green Valley Connected Fault is the closest active fault and is approximately 45 miles west-southwest of the proposed project site.

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 amount of fines (minute silt and clay fraction) may also liquefy. According to the NRCS, soils at the project site include Hedge loam, 0 to 2 percent slopes, San Joaquin silt loam, leveled, 0 to 1 percent slopes, and Xerarents-Urban land-San Joaquin complex, 0 to 5 percent slopes. The proposed project site is not located within a State-Designated Seismic Hazard Zone for liquefaction. Based on the medium dense to dense nature of the underlying soil, the absence of groundwater within the 11 test borings that were conducted onsite, and the historic seismicity in the area, the potential for liquefaction at the proposed project site during a seismic event is low.

The proposed project site is located in an area of the City of Sacramento that is topographically flat. Elevations on the proposed project site range from 44 to 48 feet above mean sea level (amsl). Seismically-induced landslides or landslides induced by soil failure typically occur on slopes with gradients of 30 percent or higher. Considering the proposed project site is topographically flat, the potential for seismically-induced or soil failure landslides does not exist.

# Soil Hazards

According to the Foundation Investigation, the fills found within the upper one to two feet on the southerly portion of the project site appear to be loose and of questionable compaction, making the soils unsuitable for building support. The Foundation Investigation recommends that such fills be overexcavated and recompacted during earthwork. The disc-disturbed surface soils would require recompaction during site grading. Based on soil investigations performed on the project site and recorded in the Foundation Investigation, it was concluded that re-compacted native soils and engineered fill that is properly placed and compacted would be capable of supporting the planned structures, provided the recommendations presented in the Foundation Investigation are implemented.

On-site soil investigations indicated that the surface and near-surface silty sands and sandy silts possess a low expansion potential; therefore, existing and new buildings would not be impacted by expansive soils on the project site.

The proposed project would be required to be consistent with the City of Sacramento Building Code; and, therefore would comply with the 2010 California Building Code (CBC) as the City implements the CBC through the building permit process. The CBC provides minimum standards for building design in the State of California. Chapter 16 of the CBC (Structural Design Requirements) includes regulations and building standards governing seismically-resistant construction and construction techniques to protect people and property from hazards associated with excavation cave-ins and falling debris/construction materials. Chapter 18 of the CBC provides regulations regarding site demolition, excavations, foundations, retaining walls, and

grading, including (but not limited to) requirements for seismically-resistant design, foundation investigation, stable cut and fill slopes, and excavation, shoring, and trenching. The CBC 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 also 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 Permit; and, to ensure graded sites within the City comply with all applicable City standards and ordinances.

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

As discussed above, the fills found within the upper one to two feet on the southerly portion of the project site appear to be loose and of questionable compaction, making the soils unsuitable for building support. However, the applicable recommendations provided in the Foundation Investigation will be implemented, as required, through the Building Permit process. Because the necessary requirements of soil condition modification will be ensured through the Building Permit process, site-specific impacts would be *less-than-significant* through compliance with the City of Sacramento Building Code and Chapter 15.88 of the City's Municipal Code.

## **Mitigation Measures**

None required.

#### **Findings**

The project would have no additional project-specific environmental effects relating to Geology and Soils.

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

# **Environmental Setting**

# **Asbestos-Containing Materials**

Federal regulations and regulations adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) apply to the identification and treatment of hazardous materials during demolition and construction activities. Failure to comply with these regulations respecting asbestos may result in a Notice of Violation being issued by the AQMD and civil penalties under state and/or federal law, in addition to possible action by U.S. EPA under federal law.

Federal law covers a number of different activities involving asbestos, including demolition and renovation of structures (40 CFR § 61.145).

#### SMAQMD Rule 902 and Commercial Structures

The work practices and administrative requirements of Rule 902 apply to all commercial renovations and demolitions where the amount of Regulated Asbestos-Containing Material (RACM) is greater than:

- 260 lineal feet of RACM on pipes;
- 160 square feet of RACM on other facility components; or
- 35 cubic feet of RACM that could not be measured otherwise.

The administrative requirements of Rule 902 apply to any demolition of commercial structures, regardless of the amount of RACM. To determine the amount of RACM in a structure, Rule 902 requires that a survey be conducted prior to demolition or renovation unless:

- The structure is otherwise exempt from the rule; or
- Any material that has a propensity to contain asbestos (so-called "suspect material") is treated as if it is RACM.

Surveys must be conducted by a licensed asbestos consultant and require laboratory analysis. Asbestos consultants are listed in the phone book under "Asbestos Consultants." Large industrial facilities may use non-licensed employees if those employees are trained by the U.S. EPA. Questions regarding the use of non-licensed employees should be directed to the AQMD.

# **Lead-Based Paint**

Lead-based paint is defined as any paint, varnish, stain, or other applied coating that has ≥ 1 mg/cm2 (5,000 µg/g or 5,000 ppm) of lead by federal guidelines; state and local definitions may differ from the federal definitions in amounts ranging from 0.5 mg/cm2 to 2.0 mg/cm2. Section 1017 of the Housing and Urban Development (HUD) Guidelines, Residential Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as "Title X," defines a lead-based paint hazard as "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact lead-based paint on most walls and ceilings would not be considered a "hazard", although the paint should be maintained and its condition monitored to ensure that it does not deteriorate and become a hazard. Additionally, Section 1018 of this law directed HUD and EPA to require the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978. Most private housing, public housing, federally owned or subsidized housing is affected by this rule.

## Vector Control

The Sacramento-Yolo Mosquito and Vector Control District provides mosquito and vector control for Sacramento and Yolo counties. To accomplish this, the District provides ongoing surveillance of mosquitoes and other vectors to determine the threat of disease transmission and lower annoyance levels. The Sacramento-Yolo Mosquito and Vector Control District works with various City agencies to develop and implement abatement strategies including working with the DOU. The DOU oversees and applies vector control best management practices at detention basins, drainage channels, drainage pump stations and drop inlets in the CSS located throughout the City. As part of their role, DOU reviews private development projects for application of identified best management practices.

## 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
- 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.

# Goal PHS 5.1 Human Services and Healthy Community. Improve Provision of Human Services and Promote Health and Safety.

Policy PHS 5.1.10

Pest/Vector Management. The City shall coordinate with appropriate agencies (e.g., Sacramento-Yolo Mosquito and Vector Management District) to support pest/vector management strategies (e.g., mosquito control), require drainage of untreated pools and other water features in homes and businesses that are vacant or in sale proceedings, and enhance public awareness of vector control.

#### **Answers to Checklist Questions**

#### Question A

The proposed project would include demolition of an existing 12,840-sf building on-site and the construction of a 243,675-sf industrial warehouse and associated loading docks and parking lot. Grading and disturbance areas will occur on approximately 14 acres, with excavation depths ranging from 0 to 36 inches for typical site grading and up to eight feet for utility trenches.

The site is not included on a list of hazardous materials sites compiled by the County pursuant to Government Code 65962.5. In addition, known contaminated soils do not occur on the project site, according to the Department of Toxic Substances Control. Therefore, construction workers or other sensitive receptors are not anticipated to be impacted by hazardous materials released during project construction activities and the project would result in a *less-than-significant* impact.

#### Question B

The proposed project would result in the demolition of an existing 12,840-sf building and the construction of a 243,675-sf industrial warehouse and associated loading docks and parking lot. Demolition of structures can result in potential exposure of people to asbestos-containing materials and/or lead-based paint if asbestos-containing lead-based materials are present within the structures.

# Asbestos-Containing Materials

The existing structure proposed for demolition was built on a concrete slab in 1978 and was inspected in April 2016 by a Building Inspector and Management Planner certified by the United States Environmental Protection Agency (EPA) and Certified Asbestos Consultant licensed with the California Division of Occupational Safety and Health (Cal-OSHA).

The structure was inspected for the presence of friable Regulated Asbestos Containing Materials and non-friable asbestos containing materials. Eleven samples of materials suspected to contain asbestos were collected. The specific materials sampled were sheetrock composite (a combination of sheetrock panels, joint tape and joint compound), sheetrock texture coat, sheet vinyl flooring, carpet mastic, mastic for rubber wall base, mortar from the CMU block wall, and concrete from the building slab.

The samples were delivered to A.E.S.L. Environmental Laboratory in Tempe, Arizona for analysis using Polarized Light Microscopy with dispersion staining to estimate percent composition by volume. A.E.S.L. Environmental Laboratory participates in the bulk sample proficiency analysis program conducted by the United States Environmental Protection Agency and is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) conducted by the National Institute of Standards and Technology. A.E.S.L. Environmental Laboratory is licensed by the California Department of Health Services under the Environmental Laboratory Accreditation Program ("ELAP"). Laboratory analysis did not detect any asbestos present in any of the materials sampled.

#### Lead-Based Paint

In buildings constructed after 1978, it is unlikely that lead-based paint is present. Structures built prior to 1978 and especially prior to the 1960s are expected to contain lead-based paint. The existing structure on the property was constructed in 1978; therefore, the demolition of the on-site structure could result in the potential for exposure to lead-based paints. Consequently, the proposed project would result in a potentially significant impact related to creation of a significant hazard to the public or the environment through the upset of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials to the environment. Implementation of Mitigation Measure 6-1 would reduce the impact to a *less-than-significant* level.

# **Question C**

Field investigations were conducted on the proposed project site to determine depth to the groundwater table by boring in 11 different areas on the project site. Each boring was drilled to a depth of 15 feet and groundwater was not encountered in any of the borings that occurred on the proposed project site. In addition, groundwater maps indicate that the free groundwater table is located at depths of greater than 65 feet.

Construction activities on the proposed project site would include grading and disturbance on approximately 14 total acres on- and off-site, with excavation depths varying from 0 to 36 inches for typical site grading and up to eight feet for utility trenches. Based on the excavation and utility trench depths and the depth of the groundwater table at the project site, dewatering activities would not occur during project construction. Therefore, construction activities would not result in exposure of people to existing contaminated groundwater, and impacts would be *less than significant*.

# **Mitigation Measures**

6-1

Prior to issuance of a demolition permit for the on-site structure, the project developer shall consult with certified Lead Risk Assessors to complete a lead survey for the site. If lead-containing materials are not discovered during the survey, further mitigation related to lead-containing materials would not be required. If lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structure. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered lead abatement contractor, in accordance with Title 8 CCR 1532.1 regarding lead

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training, engineering controls, and certifications. The applicant shall submit the work plan to the City Planning Division for review and approval.

# **Findings**

The project would have no additional project-specific environmental effects relating to Hazards.

	Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. <u>HY</u> I	DROLOGY 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?			Х
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?			Х

# **Environmental Setting**

The proposed project would include the construction of a new 243,675-sf industrial warehouse building on the approximately 14-acre project site. New drive areas and two depressed loading docks will also be constructed. Currently, the only existing structure on the site is a 12,840-sf building on a 0.75-acre lot; the building would be demolished as part of the project. The site is located approximately seven miles east of the Sacramento River and approximately 2.75 miles south of the American River; however, the site does not contain any creeks or wetlands. The project site is bounded by the PG&E Ditch to the west and south, and a roadside drainage ditch exists on the south side of Fruitridge Road, adjacent to the site. The project site is in a highly developed area of Sacramento. Currently, very little impervious surface exists on-site and, as a result, stormwater is either absorbed on-site or drains to the adjacent Fruitridge Road drainage ditch.

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

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that delineate flood hazard zones for communities. The project site is designated by FIRM Community Panel Number 06067C0195H<sup>4</sup> as being located within an area designated as

<sup>&</sup>lt;sup>4</sup> Federal Emergency Management Agency. *Flood Insurance Rate Map Community Panel Number 06067C0195H*. August 16, 2012.

shaded Zone X, which is applied to areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of less than one foot, or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance flood. The project site is in an area protected from the one percent annual chance (100-year) flood by levee, dike, or other structures subject to possible failure or overtopping during larger storms. 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.

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 City's Sewer Development Fee Fund is used to recover an appropriate share of the capital costs of the City's existing or newer system facilities or the City's existing or new combined sewer system facilities. Revenues are generated from impact fees paid by developers and others whose projects add to the demand on the combined sewer collection systems. In order to connect with the Sacramento Regional County Sanitation District (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.

## 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 National Pollutant Discharge Elimination System (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 this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation.

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

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

# Operation

The proposed drainage improvements that would be constructed consist of underground storm drain piping, aboveground trapezoidal vegetated water quality swales, a new detention basin, and a new storm drain lift station and discharge to the adjacent canal. The new detention basin would be constructed in the southern corner of the project site and the basin would drain into the new lift station that would then discharge directly into the western canal.

In addition to the aforementioned on-site improvements, off-site improvements would be constructed, including widening of Fruitridge Road and placement of new curb, gutter, and sidewalk. A new storm drain main would replace the existing roadside ditch, with new inlets placed to collect drainage in the new curb and gutter. The new storm drain line would collect stormwater from the east of the project site and connect into the existing 18-inch storm drain pipe that ties directly into the adjacent canal.

Low Impact Design (LID) Treatments associated with the City's Municipal Separate Storm Sewer System (MS4) permit would be provided as part of the project. Seven water quality vegetated swales would provide water quality treatment for the development. Vegetated swales are wide, shallow, open channels planted with dense, sod-forming vegetation designed to accept runoff from adjacent surfaces. As the runoff slows and travels through the vegetation and over the soil surface, pollutants are removed by a variety of physical and chemical mechanisms, including sedimentation filtration, adsorption, and microbial degradation and conversion.

Six of the vegetated swales would have a channel slope of one percent and one swale would have a slope of 0.75 percent. Depending on the location, the vegetated swale bottom widths range from a minimum of two feet to a maximum of four feet. In order to provide a minimum seven-minute contact time, which would ensure that all runoff is in contact with the swales long enough to clean the water, the swales would be constructed at the lengths that are required within Appendix E of the Drainage Study. Table 6, below, indicates the required and proposed swale lengths (swale numbers correspond to the numbering on Figure 6 and Figure 7, Grading and Drainage Plan (North and South)). In addition, all water quality design standards for the project would be based on the *Stormwater Quality Design Manual, Integrated Design Solutions for Urban Development*.

Table 6 Proposed Vegetated Swale Lengths				
Water Quality Swale (WQS) Number Minimum Swale Length Required Proposed Swale Length				
WQS 1	102	134		
WQS 2	59	65		
WQS 3	88	90		
WQS 4	120	140		
WQS 5	98	109		
WQS 6	132	142		
WQS 7	138	138		
Source: Morton & Pitalo, Inc.	Drainage Study for 8670 Fruitridge Road. May	4, 2016.		

#### Conclusion

Overall, 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 project would not occur. In addition, the proposed project design provides for containment of all runoff water associated with the site; therefore, discharge of runoff to surface waters or groundwater would not result from the proposed project. Furthermore, the project would comply with LID treatments associated with the City's MS4 permit. The proposed project's impacts related to substantial degradation of water quality or violation of any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project would be *less than significant*.

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# **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. Therefore, impacts related to flooding would be *less than significant*.

# **Mitigation Measures**

None required.

# **Findings**

The project would have no additional project-specific environmental effects relating to Hydrology and Water Quality.

Issues:  8. NOISE Would the project:		Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
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?			Х
B)	Result in residential interior noise levels of 45 dBA L <sub>dn</sub> or greater caused by noise level increases due to the project?			Х
C)	Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?			Х
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?			Х
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?			Х
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?			Х

# **Environmental Setting**

#### Noise

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variation occur frequently enough (at least 20 times per second), they can be heard and are called sound. 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, daynight 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 exceed 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 maybe 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  $L_{dn}$ . Typically, the CNEL and  $L_{dn}$  result in similar results for the same noise events, with the CNEL sometimes resulting in reporting a 1 dB increase compared to the  $L_{dn}$  to account for noise events between and 10 PM that have the additional weighting factor.

# **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 ppy), the latter being the general threshold where structural damage can begin to occur in fragile buildings.

# 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<sub>dn</sub> 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 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 include the construction of a 243,675-sf concrete, tilt-up warehouse building on an approximately 14-acre site surrounded by the following uses: CCTC railroad tracks to the west; various industrial land uses, including equipment rentals and building suppliers to the east; various industrial land uses, including Florin Fruitridge Industrial Park to the south; and the L and D Landfill (a Class III facility limited to commercial waste and recycling) to the north. The primary noise associated with the proposed project would be truck traffic. The truck traffic associated with the operation of the proposed project would occur on Fruitridge Road, which currently is an existing truck route for the surrounding uses. In addition, the nearest existing sensitive receptors to the site are rural, single-family residences located nearly 3,500 feet east of the project site along Osage Avenue. Therefore, the proposed project is not anticipated to 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 or result in residential interior noise levels of 45 dBA L<sub>dn</sub> or greater caused by noise level increases due to the project. In addition, the project would be consistent with the type and intensity of development anticipated for the site in the General Plan. Therefore, the project would result in a *less-than-significant* impact.

# **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 at a rate of approximately six dBA per doubling of distance between the source and receptor. The nearest sensitive receptors are located at least 3,500 feet from the project site. Therefore, the proposed project, would not result in a substantial increase in ambient noise levels in the project vicinity due to construction and impacts would be *less than significant*.

Title 8 – Health and Safety, Chapter 8.68 of the City's municipal code exempts certain activities from Chapter 8.68, including "noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure" as long as these activities are limited to between the hours of 7:00 AM and 6:00 PM Monday through Saturday, and between the hours of 9:00 AM and 6:00 PM on Sunday.

### Questions D through F

Groundborne vibration would be generated during construction of the proposed project.

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. All surrounding structures are assumed to be structurally sound, but damage would be a concern so the 0.2 in/sec PPV will be used as a threshold of significance for structural damage. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences. 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 Vibrat	ion: Guidance Manual. September 2013.			

<sup>&</sup>lt;sup>5</sup> Caltrans. *Transportation and Construction Vibration Guidance Manual*. September 2013.

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The primary vibration-generating activities associated with development of the proposed project would occur during demolition, grading, placement of infrastructure, and construction of foundations and buildings. 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.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate groundborne vibration in the immediate vicinity. As shown in the table, jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The nearest vibration-sensitive receptors are rural residential uses that are located nearly 3,500 feet east of the proposed project site. At the 3,500-foot distance between the project site and residences, vibration generated by construction activities associated with the proposed project is not expected to be perceptible, and construction-generated vibrations would not result in structural damage to such residences.

Operation of the proposed industrial storage warehouse would not include any appreciable sources of vibration, and any localized vibration generated in the immediate vicinity of project equipment would dissipate to imperceptible levels at the 3,500 feet between the project site and the nearest existing residences. Therefore, the proposed project would not cause any residential or commercial areas, or historic buildings or archaeological sites, to be exposed to excessive vibration peak particle velocities, and the project's impact would be *less than significant*.

#### **Mitigation Measures**

None required.

### **Findings**

The project would have no additional project-specific environmental effects relating to Noise.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
PUBLIC SERVICES      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?			Х

### **Environmental Setting**

The project site is located in the southeastern area of Sacramento, approximately eight miles from the downtown core of the City, and is served with fire protection, police protection, and parks 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 located at 3301 Julliard Drive, approximately 1.75 miles north of the project site. Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City. The SPD provides law enforcement protection to the proposed project site from the Rooney Station located at 5303 Franklin Boulevard. In addition to the SPD and Sheriff's Department, the California Highway Patrol, UC Davis Medical Center Police Department, and the Regional Transit Police Department provide police protection within the City of Sacramento.

The project site is within the Elk Grove Unified School District (EGUSD). The EGUSD covers 320 square miles across the communities of Florin, Franklin, Laguna Creek, Laguna West, Rancho Murieta, Sheldon, Sloughhouse, Valley Hi, Vineyard, Wilton, the City of Elk Grove and parts of the Cities of Sacramento and Rancho Cordova. The EGUSD operates 39 elementary schools, nine middle schools, and nine high schools. The nearest school, Sierra Enterprise Elementary School, is located approximately 1.15 miles east of the project site.

# **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 proposed project would be consistent with the type and intensity of development anticipated for the site in the 2035 General Plan. 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.

The SPD provides law enforcement protection to the proposed project site from the Rooney Station located at 5303 Franklin Boulevard. According to the Master EIR, the Sacramento Police Department currently has adequate staffing and response times to serve the proposed project site during construction activities and operation. A chain link fence currently borders the property; this fence will continue to provide limited access to the project site from any trespasser. In addition, the existing warehouse on the project site is currently served by the SPD and the proposed project would include generally similar uses; thus the project would not substantially increase the need for police services. Furthermore, the project applicant would be required to pay development fees for City of Sacramento law enforcement services.

The proposed project site is served by the SFD from Station 60 located at 3301 Julliard Drive, approximately three miles to the north. According to the Master EIR, the SFD currently has staffing and response times to adequately serve the proposed project site. The project would include the demolition of an existing industrial building and the construction of a new 243,675-sf industrial warehouse, as well as associated loading docks and parking lot. The project would not include the development of residential units that would increase population to the service area of the SFD. Based on the type of development that will occur as part of the project, new fire stations would not be required to be developed nor would existing fire stations need to be expanded. The project applicant would be required to incorporate design features such as sprinkler systems, adequate fire flow and flow duration, fire resistance rated construction materials, portable fire extinguishers, fire alarm and detection systems, smoke control systems, lighted exit signs, fire doors, to comply with the most current California Fire Code regulations. Additionally, the project applicant would be required to pay development fees for fire protection service for City of Sacramento fire services.

Based on the information above, the proposed project would not generate new residents in an area that would require law enforcement and fire service facilities to be expanded or new facilities to be built beyond what is described in the Master EIR. The proposed project would not generate students; therefore, existing educational facilities in the EGUSD would not need to be expanded nor would new facilities need to be developed. The proposed project would not generate residents that would increase the use of the Sacramento Public Library system. Therefore, existing library facilities would not need to be expanded nor would new facilities need to be built to accommodate implementation of the proposed project. Although the proposed project would not result in the development of new roadways, Fruitridge Road would be widened with implementation of the project. According to the City's 2035 General Plan, Fruitridge Road in the vicinity of the project site will be widened to four lanes by 2035; therefore, the widening of Fruitridge Road under the project would not result in impacts beyond those anticipated in the General Plan.

Overall, the proposed project's impact related to Public Services would be *less than significant*.

#### **Mitigation Measures**

None required.

#### **Findings**

The project would have no additional project-specific environmental effects relating to Public Services.

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

#### **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 222 developed and undeveloped park sites, 88 miles of road bikeways and trails, 21 lakes/ponds or beaches, over 20 aquatic facilities, and extensive recreation facilities in the City parks. The 222 parks comprise 3,108 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 closest park to the proposed project site is Max Baer Park, which is located approximately 1.5 miles west of the project site. In general, parks are located near the residential neighborhoods that they serve. Limited City-maintained recreational facilities exist in the vicinity of the project site due to the surrounding area being primarily developed with industrial uses.

# Standards of Significance

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

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

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

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies. (Impacts 4.9-1 and 4.9-2)

# **Answers to Checklist Questions**

#### Questions A and B

The Master EIR analyzed potential impacts to parks and recreational facilities with implementation of future projects, including the proposed project. Policies have been provided in the 2035 General Plan to ensure that future residential and non-residential development would not impact existing parks and recreational facilities and to ensure that adequate park and recreational facilities are provided to the residents of Sacramento. The Master EIR concluded that, with implementation of the policies in the 2030 General Plan, future development would not impact park and recreational 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.

The proposed project would include the demolition of an existing 12,840-sf building and construction of a 243,675-sf industrial warehouse building and associated loading docks, parking, and infrastructure. The project would not include the development of residential units and would, therefore, not generate an increase in residents that would use parks and recreational facilities in the City. In addition, the project would not 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.

It should be noted that the project applicant would be required to pay a City park development impact fees prior to issuance of a building permit for the project. The City would determine the required park development impact fee at the time of submittal of building permit applications.

Based on the information provided above, the proposed project would result in a *less-than-significant* impact related to parks and recreational facilities.

#### **Mitigation Measures**

None required.

# **Findings**

The project would have no additional project-specific environmental effects relating to Recreation.

14 TF	Issues: RANSPORTATION AND CIRCULATION	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
	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.			Х
В)	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?			Х
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?			Х
D)	Transit: adversely affect public transit operations or fail to adequately provide for access to public transit?			Х
E)	Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?			Х
F)	Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?			Х

#### **Environmental Setting**

The City of Sacramento Department of Public Works prepared a memorandum for the proposed project, in which the City analyzed the potential trip generation and traffic impacts of the project. The Department of Public Works relied on additional information from the *8670 Fruitridge Road Trip Generation Assessment* prepared by KD Anderson & Associates.<sup>6</sup>

The proposed project site currently has one driveway located on Fruitridge Road along the northern boundary of the site. The project site currently has 54 parking spaces for the existing industrial building on-site, but will house 257 parking stalls after completion of the project. Two driveways are proposed with access from Fruitridge Road to the site. Approximately one-half of the proposed warehouse building is expected to be leased to Mitsubishi for storage of carbon fiber parts. Mitsubishi is currently fabricating and storing the carbon fiber materials on 5900 88th

<sup>&</sup>lt;sup>6</sup>KD Anderson & Associates. 8670 Fruitridge Road: Trip Generation Assessment. March 16, 2016.

Street (Mitsubishi Rayon Carbon Fiber and Composite Facility) and the proposed warehouse would be used as storage overflow. Tenants have not been identified for the balance of the site. The operating hours of the building would be 8:00 AM to 5:00 PM and 20 employees would work at the proposed project site.

#### **Existing Site Conditions**

Fruitridge Road, which bounds the project site to the north, is an east-west two-lane moderate access arterial street with daily traffic volume 10,700 average daily trips (ADT) between Florin Perkins Road and South Watt Avenue. Per the City of Sacramento 2035 General Plan, this section of Fruitridge Road will be widened to four lanes by 2035 and the roadway section is expected to carry 13,300 ADT. The roadway level of service is currently level of service (LOS) A.

South Watt Avenue, which is located near the site's eastern boundary, is a north-south arterial street with two travel lanes north and south of Fruitridge Road. Daily traffic counts that were collected indicated that the South Watt Avenue segment from Jackson Road to Fruitridge Road carries approximately 23,700 ADT and the South Watt Avenue segment from Fruitridge Road to Elder Creek Road carries approximately 20,700 ADT. Both roadway segments currently operate at LOS F. The County of Sacramento General Plan indicates that widening of South Watt Avenue to six lanes is anticipated with buildout of the General Plan.

For the South Watt Avenue and Fruitridge Road intersection, the existing AM and PM peak hour LOS is LOS D with an average 42.3 and 42.6 seconds delay during each peak hour, respectively (Table 5.10-9, Aspen 1 - New Brighton DEIR, July 2012).

# **Project Trip Generation**

Table 8 shows the gross trip generation of the proposed project based on trip rates published in *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012). After accounting for the existing land uses on the site, the proposed project is expected to generate approximately 946 new daily vehicle trips, with 105 trips during the AM peak hour and 87 trips during the PM peak hour.

	Table 8								
	Project Trip Generation								
ITE Land Trips									
Use AM Peak Hour PM Peak Hour				our					
Land Use	Quantity <sup>1</sup>	Code	Daily	ln	Out	Total	In	Out	Total
Warehousing	235.553	150	1,030	104	28	132	26	77	103
Credit for Existing Warehouse Use	12.84	150	-84	-21	-6	-27	-4	-12	-16
		New Trips	946	83	22	105	22	65	87
1 ksf = thousand squar	e feet	-							

The project trips would be distributed according to the existing traffic patterns, with freeway access mostly from the north from Power Inn Road and South Watt Avenue, and anticipated Mitsubishi facilities operations between 5900 88th Street and 8670 Fruitridge Road. Approximately 30 percent of trips are expected to arrive from the east.

Fruitridge Road operates at LOS A and added traffic as a result of the project would not change the LOS on this roadway. It should be noted that the project applicant would be required to

dedicate the right-of-way along the project site's frontage to allow for construction of two eastbound travel lanes, per the 2035 General Plan which anticipates Fruitridge Road as a four-lane facility.

#### Site Access

Truck and automobile access is critical for a warehouse center operation. Because the proposed project is expected to have a high percentage of truck traffic, the project would designate one of the two proposed Fruitridge Road driveways as truck delivery access. As demonstrated on Figure 14, Truck Turning Movement, the proposed driveway would meet the minimum turning path for a 65-foot-long truck without requiring maneuvering into more than one travel lane within the public roadway.

#### **Transit**

In the Sacramento area, public transit service is provided by Sacramento Regional Transit. Route 61 provides daily transit service in the vicinity of the project site. Route 61 provides connections from the Land Park area, along Fruitridge Road to the Fruitridge Light Rail Station, to Florin-Perkins Road and north to the College Greens Light Rail Station and the Power Inn Light Rail Station.

#### Bicycle and Pedestrian Access

A bicycle lane currently exists along Fruitridge Road at the northern boundary of the proposed project site. Currently, sidewalks do not exist in the vicinity of the project site.

# 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:

#### Roadway Segments

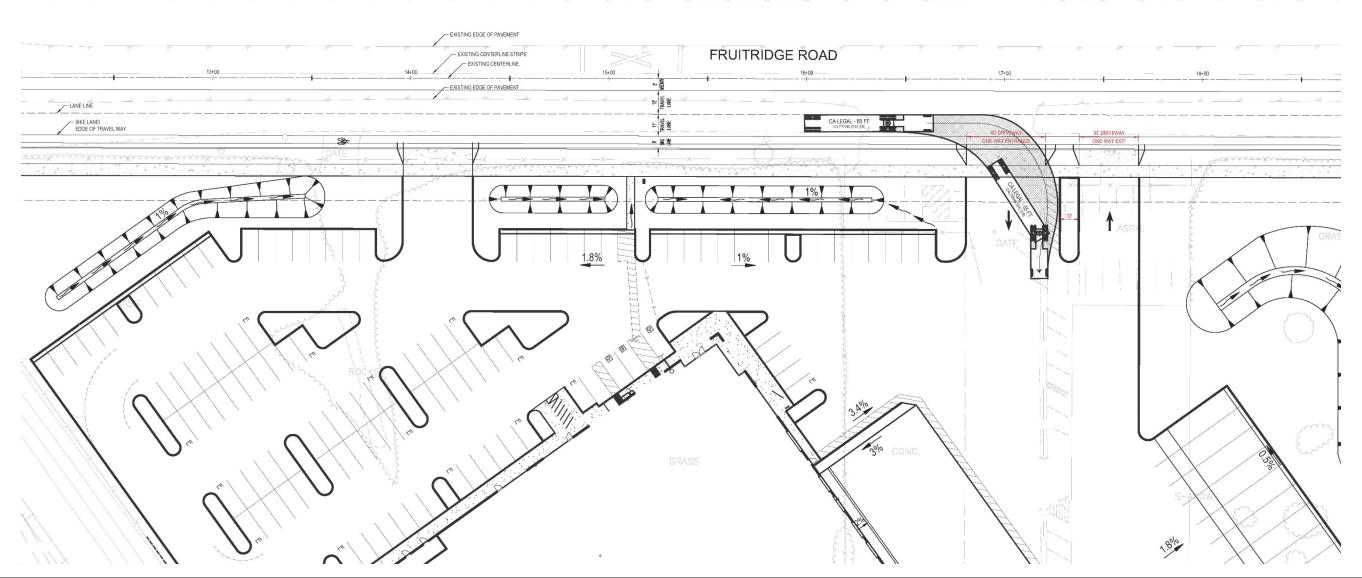
- The traffic generated by a project degrades peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project); or
- The LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.

# **Intersections**

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

Figure 14 Truck Turning Movement





# 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

As discussed in the City Department of Public Works trip generation assessment, after accounting for the existing land uses on the site, the proposed project is expected to generate approximately 946 new daily vehicle trips, with 105 trips during the AM peak hour and 87 trips during the PM peak hour. Therefore, the proposed project is not expected to change the LOS of public streets within the project vicinity.

Fruitridge Road operates at LOS A and added traffic as a result of the project would not change the LOS on this roadway. It should be noted that the project applicant would be required to dedicate the right-of-way along the project site's frontage to allow for construction of two eastbound travel lanes, per the 2035 General Plan which anticipates Fruitridge Road as a four-lane facility.

As required by the City, the main project access is required to meet the minimum turning path for a 65-foot-long tractor-trailer, without requiring maneuvering into more than one travel lane within the public roadway. Because the maneuvering of the trucks, as shown on Figure 14, can be accommodated within one travel lane, a deceleration lane is not required to be provided as part of the project.

According to the Department of Public Works memorandum, the addition of project trips is not anticipated to change LOS of any of the transportation facilities within the project vicinity. South Watt Avenue would continue to operate at LOS F until future widening of the street. The volume of traffic the proposed project would add to roadways is less than the County of Sacramento roadway impact threshold of 0.05 volume-to-capacity ratio (v/c). Similarly, traffic from the project would not significantly worsen the LOS at the intersection of South Watt Avenue and Fruitridge Road, as it currently operates at LOS D during AM and PM peak hours.

Therefore, overall, the proposed project would result in a *less-than-significant* impact related to degradation of peak period LOS on roadways in the project vicinity or degradation of freeway facilities.

#### Question D

As stated above, Sacramento Regional Transit Route 61 provides transit opportunities in the vicinity of the project site. Accordingly, adequate public access would be available to future employees at the site. The addition of 20 employees to the area would not be expected to substantially increase the number of new transit riders. Such an increase would not cause any adverse effects to public transit operations. Overall, the proposed project would result in a *less-than-significant* impact related to public transit.

#### Question E

As discussed above, a bicycle lane currently exists along Fruitridge Road in the vicinity of the proposed project site. The proposed project would provide seven bicycle parking lockers, as required. Adequate provisions of access to the site by bicycle would be provided and the project would not affect bicycle travel or paths. Therefore, impacts related to bicycle facilities would be *less than significant*.

# Question F

Implementation of the project would result in widening of Fruitridge Road and would include placement of new curb, gutter, and sidewalk. The project is not expected to involve any modifications to the existing roadway network that could adversely affect pedestrian travel or pedestrian paths, and the project would provide a sidewalk where none currently exists, which could be beneficial to pedestrian access. Therefore, the proposed project would result in a *less-than-significant* impact related to pedestrian access.

#### **Mitigation Measures**

None required.

# **Findings**

The project would have no additional project-specific environmental effects relating to Transportation and Circulation.

	Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. <u>U</u>	TILITIES AND SERVICE SYSTEMS			
Would	d the project:			
A)	Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?			Х
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?			Х

# **Environmental Setting**

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

#### Water Service

Water service in the project vicinity is currently provided by the City of Sacramento. The City of Sacramento provides domestic water service to the City through a combination of surface water and groundwater sources. Two water treatment plants supply domestic water to residents and businesses from the American and Sacramento rivers, as well as groundwater supply wells.

The project site currently contains an existing 12,840-sf industrial building on a portion of the site. The existing building is currently connected to the City's water system through a tie-in to the existing 24-inch water main located in Fruitridge Road.

### Wastewater Service

The project site is located within an area of the City served by the SASD. The SASD owns and operates thousands of miles of lower lateral and main line pipes, 108 pump stations, and is responsible for the day-to-day operations and maintenance of such sewer pipes. Once collected in the SASD system, sewage flows into the SRCSD interceptor system, where the sewage is conveyed to SRWWTP located near Elk Grove. The SRWWTP is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd). According to the Regional Water Quality Control Board's 2010 wastewater discharge permit for SRCSD's SRWWTP, the average dry weather flow at the time was approximately 141 mgd. Expansion of the SRWWTP was previously proposed; however, due to slow growth and potential reclamation, the SRCSD decided not to expand the plant at that time. Sewage treated by the SRCSD at the Sacramento Regional Wastewater Treatment Plant is then safely discharged into the Sacramento River.

The project site currently contains an existing 12,840-sf industrial building on a portion of the site. The existing building is currently provided wastewater service and is connected to the existing 15-inch sewer line in Fruitridge Road.

#### Solid Waste Service

The City of Sacramento does not provide commercial solid waste collection services. Rather, commercial garbage, recycling or yard waste services are provided by a franchised hauler authorized by the Sacramento Solid Waste Authority to collect commercial garbage and

commingled recycling within the City. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste by the City of Sacramento. According to the Master EIR, the landfill is permitted to accept up to 10,815 tons per day and the current peak and average daily disposal is much, much lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area, including the anticipated population growth, until the year 2065.

Solid waste collected at 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). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings, would reduce effects for energy to a less-than-significant level.

#### **Answers to Checklist Questions**

#### Questions A and B

The project site currently contains an existing 12,840-sf industrial building on a portion of the site. As such, the project site is currently provided water, wastewater, and solid waste services. The existing building would be demolished as part of the proposed project; however, the proposed project would use the existing connections at the site, including the existing connections to the 24-inch water main and 15-inch sewer line located within Fruitridge Road. The project includes a new six-inch on-site sewer line connection to the existing 15-inch sewer line within Fruitridge Road. As such, adequate water and sewer infrastructure is available in the project vicinity to adequately serve the proposed project.

The service demands projected for buildout of the General Plan included in the Master EIR analysis would have taken into consideration buildout of the project site consistent with the General Plan land use and zoning designation. The proposed project is consistent with the General Plan land use and zoning designation for the site. Therefore, the anticipated demands for services associated with the proposed project have already been accounted for and addressed in the Master EIR analysis. The increase in demand for services due to implementation of the proposed project would not be above or beyond what is already anticipated and planned for by the City in long-term planning documents. The proposed project alone would not cause an increase in demand such that the capacity of the water or sewer system, or Kiefer Landfill would be exceeded or that new or expansion of existing infrastructure would be required. It should be noted that the project applicant would be required to pay all applicable development impact fees for the provision of adequate water, sewer, and solid waste disposal services.

Overall, the proposed project would not 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 construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts. Therefore, impacts would be **less than significant**.

# **Mitigation Measures**

None required.

#### **Findings**

The project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

# MANDATORY FINDINGS OF SIGNIFICANCE

	Effect remains	Effect can be	No additional
	significant with	mitigated to	significant
	all identified	less than	environmental
Issues:	mitigation	significant	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.)			Х
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			Х

# **Answers to Checklist Questions**

# Question A

As described throughout this IS/MND, 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 project's impact would be *less than significant*.

#### Question B

The proposed project includes construction of an industrial warehouse building and associated improvements in a primarily built out industrial area. The proposed project is consistent with the General Plan land use designation for the project site and, as such, the proposed project was

included in the cumulative analysis of City buildout in the 2035 General Plan. 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 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 the project's cumulative impact would be *less than significant*.

# **Question C**

As described in this IS/MND, implementation of the proposed project could result in temporary impacts related to air quality, biological resources, cultural resources, geology and soils, and hazards during the construction period. However, the proposed project would be required to implement the project-specific mitigation measures within this IS/MND, as well as applicable policies of the Sacramento 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, overall, the project's impact would be *less than significant*.

# SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

	Aesthetics	Х	Hazards
Х	Air Quality		Noise
Х	Biological Resources		Public Services
Х	Cultural Resources		Recreation
	Geology and Soils		Transportation/Circulation
	Hydrology and Water Quality		Utilities and Service Systems
	None Identified		

# **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 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	John	Date 2,	2016
Scott Johnson			
Printed Name		-	

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#### 8670 FRUITRIDGE INDUSTRIAL WAREHOUSE (PROJECT DR16-016)

INITIAL STUDY

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# APPENDIX A



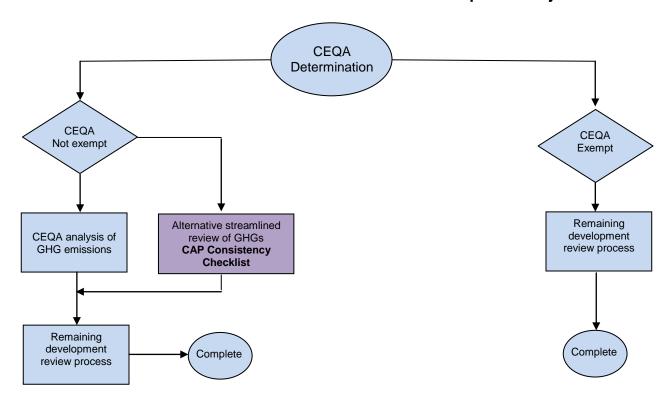
# **CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST**

The purpose of the Climate Action Plan Consistency Review Checklist (CAP Consistency Review Checklist) is to provide a streamlined review process for proposed new development projects which are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA)..

CEQA Guidelines require the analysis of greenhouse gas (GHG) emissions and potential climate change impacts from new development. The Sacramento Climate Action Plan qualifies under section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This allows projects that demonstrate consistency with the CAP to be eligible for this streamlining procedure. Projects that demonstrate consistency with the CAP and the Sacramento 2030 General Plan may be able to answer "No additional significant environmental effect" in the City's initial study checklist. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements. (See FAQ about the CAP Consistency Review Checklist for more details.)

The diagram below shows the context for the CAP Consistency Review Checklist within the planning review process framework.

# Streamlined Review of GHG Emissions in Development Projects







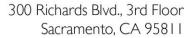
# CLIMATE ACTION PLAN - CONSISTENCY REVIEW CHECKLIST

# **Application Submittal Requirements**

- 1. The CAP Consistency Review Checklist is required only for proposed new development projects which are subject to CEQA review (non-exempt projects)
- 2. If required, the CAP Consistency Review Checklist must be submitted in addition to the basic set of requirements set forth in the Universal Application and the Planning Application Submittal Matrix.
- 3. The applicant shall work with staff to meet the requirements of this checklist. These requirements will be reflected in the conditions of approval and/or mitigation measures.
- 4. All conditions of approval and mitigation measures from this checklist shall be shown on full-size sheets for building plan check submittals.

Project Number:				
Address of Property:				
Was a special consultant r	etained to complete this checklist?	☐ Yes	☐ No. If yes, complete following	
Consultant Name*:				
Company:				
Phone:	E	-Mail:		

**Application Information** 





Yes

No\*

# CAP Consistency Checklist Form for Projects that are Not Exempt from CEQA

Checklist Item (Check the appropriate box, and provide explanation for your answer).

1.	Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan, as it currently exists?		
	Please explain how proposed project compares to 2035 General Plan with respect to density standards, Fand urban form. (See directions for filling out CAP Checklist)	FAR, lar	nd use
2.	Would the project incorporate traffic calming measures? (Examples of traffic calming measures include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections,	Yes	NA
2.		Yes	NA

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

<sup>\*</sup>If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.





	Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	NA
3.	Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?		
	Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why the required.	s was r	oot

meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?	Yes	NA
Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain why the required.	is was r	iot

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

<sup>\*</sup>If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.

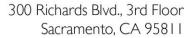




	Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No*	NA
5.	For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)			
	Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain required. If project does not meet requirements, see DIRECTIONS FOR FILLING OUT CAP CON REVIEW CHECKLIST re: alternatives to meeting checklist requirements.	-		not
	Attach a copy of the CalEEMod input and output. Record the model and version here	quireme	ent.	
6.	Would the project (if constructed on or after January 1, 2014) comply with minimum CALGreen Till water efficiency standards?	er Y	es	NA
	Please explain how the proposed project meets this requirement. If "not applicable" (NA), explain required.	why th	is was r	not

\*If "No", equivalent or better GHG reduction must be demonstrated as part and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.





# Certification

I hereby certify that the statements furnished ab	pove and in the attached exhibits pre	esent the data and					
information required for this initial evaluation to the	he best of my ability and that the fac-	cts, statements and					
information presented are true and correct to the best of my knowledge and belief.							
Signaturo:	Data						



#### DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST

#### **General Plan Consistency & Sustainable Land Use**

1. Is the proposed project substantially consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan?

Consistency with the General Plan land use and urban form designation, FAR and/or density standards is a key determining factor in whether or not the CAP Consistency Review procedure can be used. This is because future growth and development consistent with the General Plan was used to estimate business as usual emission forecasts, as well as emission reductions from actions that would be applicable to new development.

Refer to the 2035 General Plan, Land Use and Urban Form Designations and Development Standards starting on page 2-29. If a project is not fully consistent with the General Plan, the project still may qualify for consistency with the CAP, but this determination will need to be closely coordinated with the City. The City will determine whether the proposed land uses under consideration could be found consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP.

#### **Mobility**

2. Would the project incorporate traffic calming measures? (Applicable CAP Action: 2.1.1)

List the traffic calming measures that have been incorporated into the project. These may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.

The project proponent and City staff should consult with staff in the Department of Public Works-Transportation Division to verify that traffic calming measures are adequate and in compliance with the City's Street Design Standards.

If the proposed project does not include any roadway or facility improvements, traffic calming measures may not apply. For example, certain infill projects may not result in on-street or transportation facility improvements because sufficient infrastructure already exists.

3. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (Applicable CAP Action: 2.2.1)

List the pedestrian facilities and connections to public transportation that have been included in the proposed project on the Checklist. These may include, but are not limited to: sidewalks on both sides of streets, marked crosswalks, count-down signal timers, curb extensions, median islands, transit shelters, street lighting.

The project proponent and City staff should consult with Department of Public Works-Transportation Division staff to verify that pedestrian facilities are consistent with the <u>Pedestrian Master Plan</u>. As in the previous example, if "not applicable", an explanation shall be documented in the Checklist. For example, certain infill projects may not require on-street or transportation facility improvements because sufficient infrastructure already exists.





The "Pedestrian Review Process Guide" (<u>Appendix A to the Master Plan</u>) will be used to determine consistency, as follows:

- For typical infill development projects where existing streets will serve the site (no new streets are proposed): the level of pedestrian improvements necessary to determine Pedestrian Master Plan consistency will be measured according to the "Basic, Upgrade or Premium" categories defined in Appendix A to the Pedestrian Master Plan, which are based on project location, surrounding land uses, proximity to transit, etc. If the proposed project does not include the minimum level of improvements per the assigned category for the project's location, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
- For new "greenfield" projects and/or larger infill development projects where new streets are proposed as part of the project, the following will apply:
  - "Basic, Upgrade or Premium" levels of improvement will be required based on the proposed project's location and context, where applicable, consistent with the criteria defined in the Master Plan. If the proposed project does not include the minimum level of improvements per the assigned category, the
    - project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
  - The "Pedestrian Smart Growth Scorecard" (Appendix A to the Master Plan) will be required to be completed for the project, and a minimum score of 3 or better will need to be achieved. If the proposed project cannot achieve the minimum score, changes to the proposed project may be required, and/or the project may be required as a condition of approval to include certain improvements such that the average score will meet 3 or better. (Note: an Excel version of the Pedestrian Smart Growth Scorecard is available, to assist in automating the rating & scoring process)
- 4. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (Applicable CAP Action: 2.3.1)

List the bicycle facilities that are incorporated into the proposed project on the Checklist. These include, but are not limited to: Class I bike trails and Class II bike lanes connecting the project site to an existing bike network and transit stations, bike parking [bike racks, indoor secure bike parking, bike lockers], end-of-trip facilities at non-residential land uses [showers, lockers]).

The project proponent and City staff should consult with staff in the Transportation Division of the Department of Public Works to verify that such facilities are consistent with the <u>Bikeway Master Plan</u> and meet or exceed Zoning Code and CALGreen standards. Generally, the following guidelines will be used:

- If existing on-street and off-street bikeways are already present and determined to be consistent with the Bikeway Master Plan, no additional on-street bikeways will be required. Check the "not applicable" box if appropriate. However, on-site facilities shall still be required to meet or exceed minimum Zoning and CALGreen requirements.
- If not applicable, fully document the reasons why using the Checklist.





- If on-street bicycle facilities are not present or are only partially consistent with the Master Plan, the project will be required as a condition of approval to construct or pay for its fair-share of on-street and/or off-street bikeways described in the Master Plan, in addition to meeting or exceeding minimum on-site facilities.
- In some cases, a combination of new or upgraded on-street and off-street bikeways may be used to determine consistency with the Master Plan, at the discretion of the Department of Public Works-Transportation Division staff.

#### **Energy Efficiency and Renewable Energy**

5. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., solar photovoltaic, solar water heating etc.) that would generate at least 15% of the project's total energy demand? (CAP Actions: 3.4.1 and 3.4.2)

For projects of the minimum size specified in this measure, a commitment in the project description or in a mitigation measure that the project shall generate a minimum of 15% of the project's energy demand on-site is sufficient to demonstrate consistency with this measure. However, the project conditions of approval or mitigation measures should specify the intended renewable energy technology to be used (e.g. solar photovoltaic, solar water heating, wind, etc.) and estimated size of the systems to meet project demand based on the project description.

"Total energy demand" refers to the energy (electricity and natural gas) consumed by the built environment (including HVAC systems, water heating systems, and lighting systems) as well as uses that are independent of the construction of buildings, such as office equipment and other plug-ins.

Applicants may estimate the total energy demand of their projects using California Emissions Estimator Model (CalEEMod 2013.2), the same software used to estimate greenhouse gas emissions. For CalEEMod estimates of energy demand to meet this specific requirement, the user should NOT select the "use historical" box, otherwise they will be "double-counting" emissions reductions that have already been counted. CalEEMod outputs for electricity demand are provided in annual kWh, and natural gas demand is provided in annual kBTU.

The energy demand estimate by CalEEMod is based on two datasets:

- The California Commercial End Use Survey (CEUS);
- The Residential Appliance Saturation Survey (RASS

CalEEMod takes energy use intensity data (above) and forecasts energy demand based on climate zone, land use subtype (such as "hospital", "arena", or "apartments, mid rise"), building area, and the number of buildings or units. This is an appropriate level of analysis for use at the planning submittal stage, but it may not provide an accurate picture of actual project energy demand because it does not factor project specifics such as building design.

Therefore, the applicant is advised (but not required) to run a more comprehensive energy simulation once project-specific details are known: basic building design, square-footage, building envelope, lighting design (at least rudimentary), and the mechanical system (at least minimally zoned). Some of the energy simulation programs that are appropriate for this level of analysis include: DOE 2.2, Trace 700, and Energy Pro.



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

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

The U.S. DOE maintains a list of energy simulation programs that are available.

http://apps1.eere.energy.gov/buildings/tools\_directory/subjects.cfm/pagename=subjects/pagename\_menu=whole\_building analysis/pagename submenu=energy simulation

The applicant may then revise the estimate and make a final determination regarding the size of the PV system that is required.

<u>Substitutions</u>: Projects may substitute a quantity of energy efficiency for renewable energy, as long as the substituted GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, substitutions must reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

- Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:
- In lieu of installing PV systems that would generate 15% of the projects total energy, the project may exceed energy efficiency standards of Title 24, part 6 of the California Building Code, such as building to CALGreen Tier 1 energy standards. (Residential projects shall exceed the 2013 Title 24 energy efficiency by a minimum of 10% and commercial projects shall exceed 2013 Title 24 energy efficiency by a minimum of 5%).

### 6. Would the project comply with minimum CALGreen Tier I water efficiency standards? (CAP Action: 5.1.1)

The <u>California Green Building Standards Code (CALGreen)</u> includes mandatory green building measures, as well as voluntary measures that local jurisdictions may choose to adopt to achieve higher performance tiers, at either Tier 1 or Tier 2 compliance levels. Sacramento has adopted Tier 1 Water Efficiency Standards to be required on or after January 1, 2014 Currently, in order to meet the Tier 1 Water Efficiency Standards, buildings are required to implement all mandatory water efficiency and conservation measures as well as certain Tier 1 specific measures that exceed minimum mandatory measures (e.g. 30% increase in indoor water efficiency). Specific Tier 1 provisions can be found in the CALGreen Code at <a href="http://www.bsc.ca.gov/Home/CALGreen.aspx">http://www.bsc.ca.gov/Home/CALGreen.aspx</a>.

The City recognizes that project construction details are often not known at the environmental review stage, and it may be premature for a project proponent to identify compliance with precise requirements of CALGreen. A condition of approval requiring the project to comply with minimum CALGreen Tier 1 water efficiency and conservation standards is sufficient to demonstrate consistency with this criterion.

Planning approval of your project will include the following condition:

Project must meet CALGreen Tier 1 water efficiency and conservation standards. Copies of the appropriate CalGreen checklist (see FAQ) shall be included on the full-size sheets for building plan check submittals.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

## APPENDIX B

#### **Fruitridge Warehouse**

Date: 5/5/2016 3:01 PM

#### **Sacramento County, Summer**

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.68	1000sqft	5.59	243,675.00	0
Parking Lot	255.00	Space	3.95	102,000.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2017
Utility Company	Sacramento Municipal Uti	lity District			
CO2 Intensity (lb/MWhr)	482.83	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted to reflect SMUD's anticipated progress towards statewide RPS goals

Land Use - per project description and information provided by applicant

**Energy Mitigation -**

Construction Phase - based on information provided by applicant

Grading - based on information provided by applicant

Demolition -

Vehicle Trips - trip rate based on proposed project daily trip generation of 1,030 minus credit of 84 daily trips for existing warehouse use = 946 daily trips / 243.675 ksf = 3.88 trips/size/day

Date: 5/5/2016 3:01 PM

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	PhaseEndDate	10/3/2017	4/14/2017
tblConstructionPhase	PhaseStartDate	4/1/2017	10/13/2016
tblGrading	AcresOfGrading	11.00	17.40
tblLandUse	LandUseSquareFeet	243,680.00	243,675.00
tblLandUse	LotAcreage	2.29	3.95
tblProjectCharacteristics	CO2IntensityFactor	590.31	482.83
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	3.88
tblVehicleTrips	SU_TR	2.59	3.88
tblVehicleTrips	WD_TR	2.59	3.88

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
2016	31.1520	47.1364	37.5742	0.0586	6.9750	2.3151	9.1742	3.4311	2.1577	5.4544	0.0000	5,531.808 5	5,531.808 5	1.1208	0.0000	5,555.345 1
2017	30.6416	33.2059	34.7072	0.0586	1.6585	2.0272	3.6857	0.4465	1.9131	2.3595	0.0000	5,427.436 0	5,427.436 0	0.7494	0.0000	5,443.174 3
Total	61.7937	80.3423	72.2813	0.1172	8.6335	4.3423	12.8599	3.8775	4.0708	7.8139	0.0000	10,959.24 44	10,959.24 44	1.8702	0.0000	10,998.51 94

#### **Mitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
2016	31.1520	47.1364	37.5742	0.0586	6.9750	2.3151	9.1742	3.4311	2.1577	5.4544	0.0000	5,531.808 4	5,531.808 4	1.1208	0.0000	5,555.345 1
2017	30.6416	33.2059	34.7072	0.0586	1.6585	2.0272	3.6857	0.4465	1.9131	2.3595	0.0000	5,427.436 0	5,427.436 0	0.7494	0.0000	5,443.174 3
Total	61.7937	80.3423	72.2813	0.1172	8.6335	4.3423	12.8599	3.8775	4.0708	7.8139	0.0000	10,959.24 44	10,959.24 44	1.8702	0.0000	10,998.51 94

	ROG	NOx	СО	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	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Area	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Energy	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901
Mobile	3.7607	7.4556	39.6687	0.0870	5.8223	0.1080	5.9302	1.5553	0.0993	1.6546		7,278.759 9	7,278.759 9	0.2822		7,284.685 2
Total	12.1069	7.4901	39.7492	0.0872	5.8223	0.1107	5.9330	1.5553	0.1021	1.6574		7,319.710 6	7,319.710 6	0.2832	7.5000e- 004	7,325.890 9

## **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/d	lay		
Area	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Energy	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003	! ! ! !	1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
Mobile	3.7607	7.4556	39.6687	0.0870	5.8223	0.1080	5.9302	1.5553	0.0993	1.6546		7,278.759 9	7,278.759 9	0.2822		7,284.685 2
Total	12.1058	7.4799	39.7406	0.0872	5.8223	0.1100	5.9322	1.5553	0.1013	1.6566		7,307.458 1	7,307.458 1	0.2830	5.2000e- 004	7,313.563 8

CalEEMod Version: CalEEMod.2013.2.2 Page 5 of 25 Date: 5/5/2016 3:01 PM

	ROG	NOx	СО	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	0.01	0.14	0.02	0.07	0.00	0.70	0.01	0.00	0.76	0.05	0.00	0.17	0.17	0.08	30.67	0.17

## 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	8/1/2016	8/12/2016	5	10	
2	Grading	Grading	8/13/2016	9/13/2016	5	22	
3	Paving	Paving	9/14/2016	9/28/2016	5	11	
4	Building Construction	Building Construction	9/29/2016	3/31/2017	5	132	
5	Architectural Coating	Architectural Coating	10/13/2016	4/14/2017	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17.4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 370,103; Non-Residential Outdoor: 123,368 (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	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

## **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	58.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	145.00	57.00	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	29.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

3.2 Demolition - 2016
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					1.3177	0.0000	1.3177	0.1995	0.0000	0.1995			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.284 1	4,089.284 1	1.1121		4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	1.3177	2.2921	3.6099	0.1995	2.1365	2.3361		4,089.284 1	4,089.284 1	1.1121		4,112.637 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.1381	1.4265	1.8200	4.1900e- 003	0.1005	0.0222	0.1227	0.0275	0.0204	0.0479		420.6687	420.6687	2.9400e- 003		420.7304
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.1982	1.4805	2.5438	5.6500e- 003	0.2146	0.0230	0.2377	0.0578	0.0211	0.0789		540.5832	540.5832	8.7300e- 003		540.7666

## 3.2 Demolition - 2016

## **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					1.3177	0.0000	1.3177	0.1995	0.0000	0.1995			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	1.3177	2.2921	3.6099	0.1995	2.1365	2.3361	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.1381	1.4265	1.8200	4.1900e- 003	0.1005	0.0222	0.1227	0.0275	0.0204	0.0479		420.6687	420.6687	2.9400e- 003		420.7304
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.1982	1.4805	2.5438	5.6500e- 003	0.2146	0.0230	0.2377	0.0578	0.0211	0.0789		540.5832	540.5832	8.7300e- 003		540.7666

3.3 Grading - 2016

## **Unmitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					6.8609	0.0000	6.8609	3.4008	0.0000	3.4008			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.788 9	3,093.788 9	0.9332	       	3,113.386 0
Total	3.6669	38.4466	26.0787	0.0298	6.8609	2.1984	9.0593	3.4008	2.0225	5.4233		3,093.788 9	3,093.788 9	0.9332		3,113.386 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362

3.3 Grading - 2016

## **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					6.8609	0.0000	6.8609	3.4008	0.0000	3.4008		1	0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.788 9	3,093.788 9	0.9332		3,113.386 0
Total	3.6669	38.4466	26.0787	0.0298	6.8609	2.1984	9.0593	3.4008	2.0225	5.4233	0.0000	3,093.788 9	3,093.788 9	0.9332		3,113.386 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003	_	120.0362

3.4 Paving - 2016
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.376 7	2,316.376 7	0.6987		2,331.049 5
Paving	0.9408					0.0000	0.0000		0.0000	0.0000		! ! !	0.0000			0.0000
Total	3.0306	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.376 7	2,316.376 7	0.6987		2,331.049 5

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362

3.4 Paving - 2016

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.376 7	2,316.376 7	0.6987		2,331.049 5
Paving	0.9408	 				0.0000	0.0000		0.0000	0.0000		! ! !	0.0000			0.0000
Total	3.0306	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.376 7	2,316.376 7	0.6987		2,331.049 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362
Total	0.0601	0.0541	0.7239	1.4600e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		119.9145	119.9145	5.7900e- 003		120.0362

# 3.5 Building Construction - 2016 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.286 4	2,669.286 4	0.6620		2,683.189 0
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.286 4	2,669.286 4	0.6620		2,683.189 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6887	4.5781	8.0324	0.0119	0.3348	0.0750	0.4099	0.0953	0.0689	0.1642		1,190.065 3	1,190.065 3	9.3600e- 003	       	1,190.262 0
Worker	0.5811	0.5227	6.9973	0.0141	1.1030	8.1000e- 003	1.1111	0.2926	7.4500e- 003	0.3000		1,159.173 9	1,159.173 9	0.0560	       	1,160.349 9
Total	1.2698	5.1008	15.0297	0.0260	1.4378	0.0831	1.5210	0.3879	0.0764	0.4643		2,349.239 2	2,349.239	0.0654		2,350.611 8

## 3.5 Building Construction - 2016 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
- Cil rioda	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.286 4	2,669.286 4	0.6620		2,683.189 0
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.286 4	2,669.286 4	0.6620		2,683.189 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6887	4.5781	8.0324	0.0119	0.3348	0.0750	0.4099	0.0953	0.0689	0.1642		1,190.065 3	1,190.065 3	9.3600e- 003	       	1,190.262 0
Worker	0.5811	0.5227	6.9973	0.0141	1.1030	8.1000e- 003	1.1111	0.2926	7.4500e- 003	0.3000		1,159.173 9	1,159.173 9	0.0560	     	1,160.349 9
Total	1.2698	5.1008	15.0297	0.0260	1.4378	0.0831	1.5210	0.3879	0.0764	0.4643		2,349.239	2,349.239	0.0654		2,350.611 8

# 3.5 Building Construction - 2017 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812	 	1.6730	1.6730		2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.805 3	2,639.805 3	0.6497		2,653.449 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5939	4.0545	7.1930	0.0119	0.3349	0.0632	0.3981	0.0954	0.0581	0.1534		1,170.038 2	1,170.038 2	8.7300e- 003		1,170.221 4
Worker	0.5181	0.4673	6.2641	0.0141	1.1030	7.8300e- 003	1.1109	0.2926	7.2200e- 003	0.2998		1,113.453 7	1,113.453 7	0.0511		1,114.526 5
Total	1.1120	4.5218	13.4571	0.0260	1.4379	0.0711	1.5090	0.3879	0.0653	0.4533		2,283.491 9	2,283.491 9	0.0598		2,284.747 9

## 3.5 Building Construction - 2017

## **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5939	4.0545	7.1930	0.0119	0.3349	0.0632	0.3981	0.0954	0.0581	0.1534		1,170.038 2	1,170.038 2	8.7300e- 003		1,170.221 4
Worker	0.5181	0.4673	6.2641	0.0141	1.1030	7.8300e- 003	1.1109	0.2926	7.2200e- 003	0.2998		1,113.453 7	1,113.453 7	0.0511		1,114.526 5
Total	1.1120	4.5218	13.4571	0.0260	1.4379	0.0711	1.5090	0.3879	0.0653	0.4533		2,283.491 9	2,283.491 9	0.0598		2,284.747 9

## 3.6 Architectural Coating - 2016 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966	       	0.1966	0.1966		281.4481	281.4481	0.0332	       	282.1449
Total	26.3598	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	,       	0.0000
Worker	0.1162	0.1045	1.3995	2.8200e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		231.8348	231.8348	0.0112		232.0700
Total	0.1162	0.1045	1.3995	2.8200e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		231.8348	231.8348	0.0112		232.0700

## 3.6 Architectural Coating - 2016 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966	       	0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	26.3598	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1162	0.1045	1.3995	2.8200e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		231.8348	231.8348	0.0112		232.0700
Total	0.1162	0.1045	1.3995	2.8200e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		231.8348	231.8348	0.0112		232.0700

3.6 Architectural Coating - 2017 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297	     	282.0721
Total	26.3237	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1036	0.0935	1.2528	2.8200e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		222.6907	222.6907	0.0102		222.9053
Total	0.1036	0.0935	1.2528	2.8200e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		222.6907	222.6907	0.0102		222.9053

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## 3.6 Architectural Coating - 2017 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297	,       	282.0721
Total	26.3237	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1036	0.0935	1.2528	2.8200e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		222.6907	222.6907	0.0102		222.9053
Total	0.1036	0.0935	1.2528	2.8200e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		222.6907	222.6907	0.0102		222.9053

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	3.7607	7.4556	39.6687	0.0870	5.8223	0.1080	5.9302	1.5553	0.0993	1.6546		7,278.759 9	7,278.759 9	0.2822		7,284.685 2
Unmitigated	3.7607	7.4556	39.6687	0.0870	5.8223	0.1080	5.9302	1.5553	0.0993	1.6546		7,278.759 9	7,278.759 9	0.2822		7,284.685 2

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	945.48	945.48	945.48	2,749,744	2,749,744
Parking Lot	0.00	0.00	0.00		
Total	945.48	945.48	945.48	2,749,744	2,749,744

## **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
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
Unrefrigerated Warehouse-No	10.00	5.00	6.50	59.00	0.00	41.00	92	5	3
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504380	0.068251	0.178421	0.147199	0.044767	0.006294	0.020809	0.016358	0.002307	0.002286	0.006181	0.000572	0.002175

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## 5.0 ElectrolyxDetail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Maintenant of	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
Unmitigated	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901

## 5.2 Energy by Land Use - NaturalGas

## **Unmitigated**

	NaturalGa s 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/d	day							lb/c	lay		
Unrefrigerated Warehouse-No	347.153	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901
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		3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901

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# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s 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/d	day							lb/c	lay		
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
Unrefrigerated Warehouse-No	0.243007	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
Total		2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631

## 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/d	day							lb/d	lay		
Mitigated	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004	 	1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Unmitigated	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004	i i	1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

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## 6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.9400					0.0000	0.0000	! !	0.0000	0.0000	1 1 1		0.0000			0.0000
Consumer Products	7.3974	,	,	,		0.0000	0.0000	1 ! ! !	0.0000	0.0000	*		0.0000			0.0000
Landscaping	5.0100e- 003	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004	1 ! ! !	1.9000e- 004	1.9000e- 004	*	0.1091	0.1091	3.0000e- 004		0.1155
Total	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

## **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/d	day							lb/d	day		
Architectural Coating	0.9400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3974					0.0000	0.0000		0.0000	0.0000			0.0000	   		0.0000
Landscaping	5.0100e- 003	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Total	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

## 7.0 Water Detail

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## 7.1 Mitigation Measures Water

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Vegetation

#### Fruitridge Warehouse

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#### **Sacramento County, Winter**

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.68	1000sqft	5.59	243,675.00	0
Parking Lot	255.00	Space	3.95	102,000.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2017
Utility Company	Sacramento Municipal Uti	lity District			
CO2 Intensity (lb/MWhr)	482.83	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted to reflect SMUD's anticipated progress towards statewide RPS goals

Land Use - per project description and information provided by applicant

**Energy Mitigation -**

Construction Phase - based on information provided by applicant

Grading - based on information provided by applicant

Demolition -

Vehicle Trips - trip rate based on proposed project daily trip generation of 1,030 minus credit of 84 daily trips for existing warehouse use = 946 daily trips / 243.675 ksf = 3.88 trips/size/day

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	PhaseEndDate	10/3/2017	4/14/2017
tblConstructionPhase	PhaseStartDate	4/1/2017	10/13/2016
tblGrading	AcresOfGrading	11.00	17.40
tblLandUse	LandUseSquareFeet	243,680.00	243,675.00
tblLandUse	LotAcreage	2.29	3.95
tblProjectCharacteristics	CO2IntensityFactor	590.31	482.83
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	3.88
tblVehicleTrips	SU_TR	2.59	3.88
tblVehicleTrips	WD_TR	2.59	3.88

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/c	lay		
2016	31.2809	47.2765	39.6962	0.0565	6.9750	2.3152	9.1742	3.4311	2.1578	5.4544	0.0000	5,351.720 0	5,351.720 0	1.1208	0.0000	5,375.257 5
2017	30.7376	33.6294	37.6017	0.0565	1.6585	2.0281	3.6866	0.4465	1.9139	2.3604	0.0000	5,253.987 6	5,253.987 6	0.7497	0.0000	5,269.731 8
Total	62.0185	80.9059	77.2978	0.1130	8.6335	4.3433	12.8608	3.8775	4.0717	7.8147	0.0000	10,605.70 76	10,605.70 76	1.8706	0.0000	10,644.98 94

#### **Mitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
2016	31.2809	47.2765	39.6962	0.0565	6.9750	2.3152	9.1742	3.4311	2.1578	5.4544	0.0000	5,351.720 0	5,351.720 0	1.1208	0.0000	5,375.257 5
2017	30.7376	33.6294	37.6017	0.0565	1.6585	2.0281	3.6866	0.4465	1.9139	2.3604	0.0000	5,253.987 6	5,253.987 6	0.7497	0.0000	5,269.731 8
Total	62.0185	80.9059	77.2978	0.1130	8.6335	4.3433	12.8608	3.8775	4.0717	7.8147	0.0000	10,605.70 76	10,605.70 76	1.8706	0.0000	10,644.98 94

	ROG	NOx	со	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	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/d	day		
Area	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Energy	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901
Mobile	3.5185	8.5075	40.0791	0.0785	5.8223	0.1086	5.9308	1.5553	0.0999	1.6552		6,587.381 1	6,587.381 1	0.2823		6,593.310 1
Total	11.8647	8.5420	40.1595	0.0787	5.8223	0.1114	5.9336	1.5553	0.1027	1.6580		6,628.331 8	6,628.331 8	0.2834	7.5000e- 004	6,634.515 8

## **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		8 3424 1 4 9000e- i 0 0519 i 0 0000 i 1 1 9000e- i 1 9000e- i 1 9000e- i											lb/d	day		
Area	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Energy	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
Mobile	3.5185	8.5075	40.0791	0.0785	5.8223	0.1086	5.9308	1.5553	0.0999	1.6552		6,587.381 1	6,587.381 1	0.2823		6,593.310 1
Total	11.8635	8.5318	40.1510	0.0786	5.8223	0.1106	5.9328	1.5553	0.1019	1.6572		6,616.079 4	6,616.079 4	0.2832	5.2000e- 004	6,622.188 8

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	ROG	NOx	СО	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	0.01	0.12	0.02	80.0	0.00	0.70	0.01	0.00	0.76	0.05	0.00	0.18	0.18	0.08	30.67	0.19

## 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	8/1/2016	8/12/2016	5	10	
2	Grading	Grading	8/13/2016	9/13/2016	5	22	
3	Paving	Paving	9/14/2016	9/28/2016	5	11	
4	Building Construction	Building Construction	9/29/2016	3/31/2017	5	132	
5	Architectural Coating	Architectural Coating	10/13/2016	4/14/2017	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17.4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 370,103; Non-Residential Outdoor: 123,368 (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	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

## **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	58.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	145.00	57.00	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	29.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

3.2 Demolition - 2016
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					1.3177	0.0000	1.3177	0.1995	0.0000	0.1995			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.284 1	4,089.284 1	1.1121	       	4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	1.3177	2.2921	3.6099	0.1995	2.1365	2.3361		4,089.284 1	4,089.284 1	1.1121		4,112.637 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day						lb/d	day			
Hauling	0.1714	1.5536	2.3722	4.1900e- 003	0.1005	0.0222	0.1228	0.0275	0.0204	0.0480		419.6449	419.6449	2.9800e- 003		419.7075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.2239	1.6207	3.0256	5.4700e- 003	0.2146	0.0231	0.2377	0.0578	0.0212	0.0790		524.9284	524.9284	8.7700e- 003		525.1126

3.2 Demolition - 2016

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					1.3177	0.0000	1.3177	0.1995	0.0000	0.1995			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399	 	2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121	     	4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	1.3177	2.2921	3.6099	0.1995	2.1365	2.3361	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.1714	1.5536	2.3722	4.1900e- 003	0.1005	0.0222	0.1228	0.0275	0.0204	0.0480		419.6449	419.6449	2.9800e- 003		419.7075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.2239	1.6207	3.0256	5.4700e- 003	0.2146	0.0231	0.2377	0.0578	0.0212	0.0790		524.9284	524.9284	8.7700e- 003		525.1126

3.3 Grading - 2016

## **Unmitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					6.8609	0.0000	6.8609	3.4008	0.0000	3.4008			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.788 9	3,093.788 9	0.9332		3,113.386 0
Total	3.6669	38.4466	26.0787	0.0298	6.8609	2.1984	9.0593	3.4008	2.0225	5.4233		3,093.788 9	3,093.788 9	0.9332		3,113.386 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052

3.3 Grading - 2016

## **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					6.8609	0.0000	6.8609	3.4008	0.0000	3.4008			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.788 9	3,093.788 9	0.9332	 	3,113.386 0
Total	3.6669	38.4466	26.0787	0.0298	6.8609	2.1984	9.0593	3.4008	2.0225	5.4233	0.0000	3,093.788 9	3,093.788 9	0.9332		3,113.386 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052

3.4 Paving - 2016
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.376 7	2,316.376 7	0.6987		2,331.049 5
Paving	0.9408					0.0000	0.0000		0.0000	0.0000		! ! !	0.0000			0.0000
Total	3.0306	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.376 7	2,316.376 7	0.6987		2,331.049 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052

3.4 Paving - 2016

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.376 7	2,316.376 7	0.6987		2,331.049 5
Paving	0.9408	 				0.0000	0.0000		0.0000	0.0000		! ! !	0.0000			0.0000
Total	3.0306	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.376 7	2,316.376 7	0.6987		2,331.049 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052
Total	0.0524	0.0671	0.6534	1.2800e- 003	0.1141	8.4000e- 004	0.1149	0.0303	7.7000e- 004	0.0310		105.2835	105.2835	5.7900e- 003		105.4052

# 3.5 Building Construction - 2016 Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674	 	1.8485	1.8485		2,669.286 4	2,669.286 4	0.6620		2,683.189 0
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.286 4	2,669.286 4	0.6620		2,683.189 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9065	4.9084	11.7260	0.0119	0.3348	0.0762	0.4110	0.0953	0.0699	0.1653		1,179.696 7	1,179.696 7	9.6400e- 003		1,179.899 2
Worker	0.5070	0.6486	6.3163	0.0124	1.1030	8.1000e- 003	1.1111	0.2926	7.4500e- 003	0.3000		1,017.740 7	1,017.740 7	0.0560	       	1,018.916 7
Total	1.4135	5.5569	18.0424	0.0243	1.4378	0.0843	1.5221	0.3879	0.0774	0.4653		2,197.437 4	2,197.437 4	0.0656		2,198.815 9

# 3.5 Building Construction - 2016 <u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.286 4	2,669.286 4	0.6620		2,683.189 0
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.286 4	2,669.286 4	0.6620		2,683.189 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9065	4.9084	11.7260	0.0119	0.3348	0.0762	0.4110	0.0953	0.0699	0.1653		1,179.696 7	1,179.696 7	9.6400e- 003		1,179.899 2
Worker	0.5070	0.6486	6.3163	0.0124	1.1030	8.1000e- 003	1.1111	0.2926	7.4500e- 003	0.3000		1,017.740 7	1,017.740 7	0.0560		1,018.916 7
Total	1.4135	5.5569	18.0424	0.0243	1.4378	0.0843	1.5221	0.3879	0.0774	0.4653		2,197.437 4	2,197.437 4	0.0656		2,198.815 9

# 3.5 Building Construction - 2017 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.805 3	2,639.805 3	0.6497		2,653.449 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7744	4.3437	10.8717	0.0119	0.3349	0.0642	0.3991	0.0954	0.0589	0.1543		1,159.803 7	1,159.803 7	9.0100e- 003		1,159.992 9
Worker	0.4476	0.5792	5.6106	0.0124	1.1030	7.8300e- 003	1.1109	0.2926	7.2200e- 003	0.2998		977.4421	977.4421	0.0511		978.5149
Total	1.2220	4.9229	16.4823	0.0242	1.4379	0.0720	1.5099	0.3879	0.0662	0.4541		2,137.245 8	2,137.245 8	0.0601		2,138.507 8

# 3.5 Building Construction - 2017 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812	 	1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7744	4.3437	10.8717	0.0119	0.3349	0.0642	0.3991	0.0954	0.0589	0.1543		1,159.803 7	1,159.803 7	9.0100e- 003		1,159.992 9
Worker	0.4476	0.5792	5.6106	0.0124	1.1030	7.8300e- 003	1.1109	0.2926	7.2200e- 003	0.2998		977.4421	977.4421	0.0511		978.5149
Total	1.2220	4.9229	16.4823	0.0242	1.4379	0.0720	1.5099	0.3879	0.0662	0.4541		2,137.245 8	2,137.245 8	0.0601		2,138.507 8

3.6 Architectural Coating - 2016 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966	 	0.1966	0.1966		281.4481	281.4481	0.0332	     	282.1449
Total	26.3598	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1014	0.1297	1.2633	2.4800e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		203.5481	203.5481	0.0112		203.7833
Total	0.1014	0.1297	1.2633	2.4800e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		203.5481	203.5481	0.0112		203.7833

# 3.6 Architectural Coating - 2016 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332	       	282.1449
Total	26.3598	2.3722	1.8839	2.9700e- 003	-	0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1014	0.1297	1.2633	2.4800e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		203.5481	203.5481	0.0112		203.7833
Total	0.1014	0.1297	1.2633	2.4800e- 003	0.2206	1.6200e- 003	0.2222	0.0585	1.4900e- 003	0.0600		203.5481	203.5481	0.0112		203.7833

3.6 Architectural Coating - 2017 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.3323	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297	       	282.0721
Total	26.3237	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	,       	0.0000
Worker	0.0895	0.1158	1.1221	2.4700e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		195.4884	195.4884	0.0102	,       	195.7030
Total	0.0895	0.1158	1.1221	2.4700e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		195.4884	195.4884	0.0102		195.7030

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# 3.6 Architectural Coating - 2017 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Archit. Coating	25.9913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	26.3237	2.1850	1.8681	2.9700e- 003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	       	0.0000
Worker	0.0895	0.1158	1.1221	2.4700e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		195.4884	195.4884	0.0102	       	195.7030
Total	0.0895	0.1158	1.1221	2.4700e- 003	0.2206	1.5700e- 003	0.2222	0.0585	1.4400e- 003	0.0600		195.4884	195.4884	0.0102		195.7030

# 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/d	day							lb/c	lay		
Mitigated	3.5185	8.5075	40.0791	0.0785	5.8223	0.1086	5.9308	1.5553	0.0999	1.6552		6,587.381 1	6,587.381 1	0.2823		6,593.310 1
Unmitigated	3.5185	8.5075	40.0791	0.0785	5.8223	0.1086	5.9308	1.5553	0.0999	1.6552		6,587.381 1	6,587.381 1	0.2823		6,593.310 1

# **4.2 Trip Summary Information**

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	945.48	945.48	945.48	2,749,744	2,749,744
Parking Lot	0.00	0.00	0.00		
Total	945.48	945.48	945.48	2,749,744	2,749,744

# **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
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
Unrefrigerated Warehouse-No	•	5.00	6.50	59.00	0.00	41.00	92	5	3
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504380	0.068251	0.178421	0.147199	0.044767	0.006294	0.020809	0.016358	0.002307	0.002286	0.006181	0.000572	0.002175

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# 5.0 ElectrolyxDetail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Mitigated	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003	 	1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
NaturalGas Unmitigated	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003	       	2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901

# 5.2 Energy by Land Use - NaturalGas

# **Unmitigated**

	NaturalGa s 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/d	day							lb/c	lay		
Unrefrigerated Warehouse-No	347.153	3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901
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		3.7400e- 003	0.0340	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003		40.8416	40.8416	7.8000e- 004	7.5000e- 004	41.0901

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# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s 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/d	day							lb/c	lay		
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
Unrefrigerated Warehouse-No	0.243007	2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631
Total		2.6200e- 003	0.0238	0.0200	1.4000e- 004		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		28.5891	28.5891	5.5000e- 004	5.2000e- 004	28.7631

# 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/d	day							lb/d	day		
Mitigated	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004	! !	1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Unmitigated	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004	 	1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

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# 6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	CO	SO2	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/d	day							lb/d	day		
Architectural Coating	0.9400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3974	       		 		0.0000	0.0000		0.0000	0.0000		;	0.0000			0.0000
Landscaping	5.0100e- 003	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Total	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

# **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/d	day							lb/d	day		
Architectural Coating	0.9400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3974					0.0000	0.0000		0.0000	0.0000			0.0000	   		0.0000
Landscaping	5.0100e- 003	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155
Total	8.3424	4.9000e- 004	0.0519	0.0000		1.9000e- 004	1.9000e- 004		1.9000e- 004	1.9000e- 004		0.1091	0.1091	3.0000e- 004		0.1155

# 7.0 Water Detail

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# 7.1 Mitigation Measures Water

#### 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

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

# 10.0 Vegetation

# Fruitridge Warehouse

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#### Sacramento County, Annual

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.68	1000sqft	5.59	243,675.00	0
Parking Lot	255.00	Space	3.95	102,000.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2017
Utility Company	Sacramento Municipal Util	lity District			
CO2 Intensity (lb/MWhr)	482.83	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted to reflect SMUD's anticipated progress towards statewide RPS goals

Land Use - per project description and information provided by applicant

**Energy Mitigation -**

Construction Phase - based on information provided by applicant

Grading - based on information provided by applicant

Demolition -

Vehicle Trips - trip rate based on proposed project daily trip generation of 1,030 minus credit of 84 daily trips for existing warehouse use = 946 daily trips / 243.675 ksf = 3.88 trips/size/day

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	PhaseEndDate	10/3/2017	4/14/2017
tblConstructionPhase	PhaseStartDate	4/1/2017	10/13/2016
tblGrading	AcresOfGrading	11.00	17.40
tblLandUse	LandUseSquareFeet	243,680.00	243,675.00
tblLandUse	LotAcreage	2.29	3.95
tblProjectCharacteristics	CO2IntensityFactor	590.31	482.83
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	3.88
tblVehicleTrips	SU_TR	2.59	3.88
tblVehicleTrips	WD_TR	2.59	3.88

# 2.0 Emissions Summary

# 2.1 Overall Construction

# **Unmitigated Construction**

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	7/yr		
2016	0.9902	1.9902	1.7938	2.5800e- 003	0.1376	0.1171	0.2546	0.0534	0.1096	0.1630	0.0000	226.6882	226.6882	0.0412	0.0000	227.5539
2017	1.1265	1.0997	1.1553	1.8800e- 003	0.0532	0.0668	0.1199	0.0144	0.0631	0.0774	0.0000	158.2880	158.2880	0.0223	0.0000	158.7559
Total	2.1167	3.0899	2.9491	4.4600e- 003	0.1907	0.1838	0.3746	0.0677	0.1726	0.2404	0.0000	384.9762	384.9762	0.0635	0.0000	386.3098

# **Mitigated Construction**

	ROG	NOx	СО	SO2	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					tor	ns/yr							М	T/yr		
2016	0.9902	1.9902	1.7937	2.5800e- 003	0.1376	0.1171	0.2546	0.0534	0.1096	0.1630	0.0000	226.6880	226.6880	0.0412	0.0000	227.5538
2017	1.1265	1.0997	1.1553	1.8800e- 003	0.0532	0.0668	0.1199	0.0144	0.0631	0.0774	0.0000	158.2879	158.2879	0.0223	0.0000	158.7558
Total	2.1167	3.0899	2.9490	4.4600e- 003	0.1907	0.1838	0.3746	0.0677	0.1726	0.2404	0.0000	384.9759	384.9759	0.0635	0.0000	386.3095
	ROG	NOx	СО	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	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131
Energy	6.8000e- 004	6.2100e- 003	5.2200e- 003	4.0000e- 005		4.7000e- 004	4.7000e- 004		4.7000e- 004	4.7000e- 004	0.0000	210.0017	210.0017	0.0123	2.6500e- 003	211.0821
Mobile	0.6075	1.4642	6.7141	0.0146	1.0235	0.0197	1.0432	0.2742	0.0181	0.2923	0.0000	1,110.856 9	1,110.856 9	0.0465	0.0000	1,111.834 3
Waste	) 	     	i i			0.0000	0.0000		0.0000	0.0000	46.4971	0.0000	46.4971	2.7479	0.0000	104.2030
Water		       				0.0000	0.0000		0.0000	0.0000	19.9371	61.4919	81.4289	0.0723	0.0441	96.6250
Total	2.1304	1.4705	6.7258	0.0146	1.0235	0.0202	1.0437	0.2742	0.0186	0.2928	66.4342	1,382.362 8	1,448.797 0	2.8791	0.0468	1,523.757 5

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# 2.2 Overall Operational

# **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	<sup>-</sup> /yr		
Area	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131
Energy	4.8000e- 004	4.3500e- 003	3.6500e- 003	3.0000e- 005		3.3000e- 004	3.3000e- 004		3.3000e- 004	3.3000e- 004	0.0000	202.8499	202.8499	0.0120	2.5500e- 003	203.8918
Mobile	0.6075	1.4642	6.7141	0.0146	1.0235	0.0197	1.0432	0.2742	0.0181	0.2923	0.0000	1,110.856 9	1,110.856 9	0.0465	0.0000	1,111.834 3
Waste	1 1 1 1	     	i i			0.0000	0.0000		0.0000	0.0000	46.4971	0.0000	46.4971	2.7479	0.0000	104.2030
Water						0.0000	0.0000		0.0000	0.0000	19.9371	61.4919	81.4289	0.0726	0.0442	96.6472
Total	2.1302	1.4686	6.7242	0.0146	1.0235	0.0200	1.0436	0.2742	0.0185	0.2927	66.4342	1,375.211 1	1,441.645 3	2.8790	0.0467	1,516.589 5

	ROG	NOx	СО	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	0.01	0.13	0.02	0.07	0.00	0.69	0.01	0.00	0.75	0.05	0.00	0.52	0.49	0.00	0.11	0.47

# 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	8/1/2016	8/12/2016	5	10	
2	Grading	Grading	8/13/2016	9/13/2016	5	22	
3	Paving	Paving	9/14/2016	9/28/2016	5	11	
4	Building Construction	Building Construction	9/29/2016	3/31/2017	5	132	
5	Architectural Coating	Architectural Coating	10/13/2016	4/14/2017	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17.4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 370,103; Non-Residential Outdoor: 123,368 (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	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators		8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	†	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	58.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	145.00	57.00	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	29.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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3.2 Demolition - 2016
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					6.5900e- 003	0.0000	6.5900e- 003	1.0000e- 003	0.0000	1.0000e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e- 004		0.0115	0.0115		0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e- 003	0.0000	18.6546
Total	0.0214	0.2283	0.1752	2.0000e- 004	6.5900e- 003	0.0115	0.0181	1.0000e- 003	0.0107	0.0117	0.0000	18.5487	18.5487	5.0400e- 003	0.0000	18.6546

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Hauling	7.5000e- 004	7.6000e- 003	0.0101	2.0000e- 005	4.9000e- 004	1.1000e- 004	6.0000e- 004	1.3000e- 004	1.0000e- 004	2.4000e- 004	0.0000	1.9062	1.9062	1.0000e- 005	0.0000	1.9065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e- 004	3.0000e- 004	3.1500e- 003	1.0000e- 005	5.5000e- 004	0.0000	5.6000e- 004	1.5000e- 004	0.0000	1.5000e- 004	0.0000	0.4916	0.4916	3.0000e- 005	0.0000	0.4921
Total	1.0000e- 003	7.9000e- 003	0.0132	3.0000e- 005	1.0400e- 003	1.1000e- 004	1.1600e- 003	2.8000e- 004	1.0000e- 004	3.9000e- 004	0.0000	2.3978	2.3978	4.0000e- 005	0.0000	2.3986

3.2 Demolition - 2016

# **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					6.5900e- 003	0.0000	6.5900e- 003	1.0000e- 003	0.0000	1.0000e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e- 004		0.0115	0.0115	 	0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e- 003	0.0000	18.6546
Total	0.0214	0.2283	0.1752	2.0000e- 004	6.5900e- 003	0.0115	0.0181	1.0000e- 003	0.0107	0.0117	0.0000	18.5487	18.5487	5.0400e- 003	0.0000	18.6546

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	7.5000e- 004	7.6000e- 003	0.0101	2.0000e- 005	4.9000e- 004	1.1000e- 004	6.0000e- 004	1.3000e- 004	1.0000e- 004	2.4000e- 004	0.0000	1.9062	1.9062	1.0000e- 005	0.0000	1.9065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e- 004	3.0000e- 004	3.1500e- 003	1.0000e- 005	5.5000e- 004	0.0000	5.6000e- 004	1.5000e- 004	0.0000	1.5000e- 004	0.0000	0.4916	0.4916	3.0000e- 005	0.0000	0.4921
Total	1.0000e- 003	7.9000e- 003	0.0132	3.0000e- 005	1.0400e- 003	1.1000e- 004	1.1600e- 003	2.8000e- 004	1.0000e- 004	3.9000e- 004	0.0000	2.3978	2.3978	4.0000e- 005	0.0000	2.3986

3.3 Grading - 2016
Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0755	0.0000	0.0755	0.0374	0.0000	0.0374	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0403	0.4229	0.2869	3.3000e- 004		0.0242	0.0242		0.0223	0.0223	0.0000	30.8730	30.8730	9.3100e- 003	0.0000	31.0686
Total	0.0403	0.4229	0.2869	3.3000e- 004	0.0755	0.0242	0.0997	0.0374	0.0223	0.0597	0.0000	30.8730	30.8730	9.3100e- 003	0.0000	31.0686

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e- 004	6.6000e- 004	6.9200e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0815	1.0815	6.0000e- 005	0.0000	1.0827
Total	5.5000e- 004	6.6000e- 004	6.9200e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0815	1.0815	6.0000e- 005	0.0000	1.0827

3.3 Grading - 2016

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0755	0.0000	0.0755	0.0374	0.0000	0.0374	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0403	0.4229	0.2869	3.3000e- 004		0.0242	0.0242		0.0223	0.0223	0.0000	30.8730	30.8730	9.3100e- 003	0.0000	31.0685
Total	0.0403	0.4229	0.2869	3.3000e- 004	0.0755	0.0242	0.0997	0.0374	0.0223	0.0597	0.0000	30.8730	30.8730	9.3100e- 003	0.0000	31.0685

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e- 004	6.6000e- 004	6.9200e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0815	1.0815	6.0000e- 005	0.0000	1.0827
Total	5.5000e- 004	6.6000e- 004	6.9200e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0815	1.0815	6.0000e- 005	0.0000	1.0827

3.4 Paving - 2016
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0115	0.1231	0.0815	1.2000e- 004		6.9400e- 003	6.9400e- 003		6.3800e- 003	6.3800e- 003	0.0000	11.5576	11.5576	3.4900e- 003	0.0000	11.6308
Paving	5.1700e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0167	0.1231	0.0815	1.2000e- 004		6.9400e- 003	6.9400e- 003		6.3800e- 003	6.3800e- 003	0.0000	11.5576	11.5576	3.4900e- 003	0.0000	11.6308

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	3.3000e- 004	3.4600e- 003	1.0000e- 005	6.1000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.7000e- 004	0.0000	0.5408	0.5408	3.0000e- 005	0.0000	0.5414
Total	2.8000e- 004	3.3000e- 004	3.4600e- 003	1.0000e- 005	6.1000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.7000e- 004	0.0000	0.5408	0.5408	3.0000e- 005	0.0000	0.5414

3.4 Paving - 2016

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0115	0.1231	0.0815	1.2000e- 004		6.9400e- 003	6.9400e- 003		6.3800e- 003	6.3800e- 003	0.0000	11.5576	11.5576	3.4900e- 003	0.0000	11.6308
Paving	5.1700e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0167	0.1231	0.0815	1.2000e- 004		6.9400e- 003	6.9400e- 003		6.3800e- 003	6.3800e- 003	0.0000	11.5576	11.5576	3.4900e- 003	0.0000	11.6308

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	3.3000e- 004	3.4600e- 003	1.0000e- 005	6.1000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.7000e- 004	0.0000	0.5408	0.5408	3.0000e- 005	0.0000	0.5414
Total	2.8000e- 004	3.3000e- 004	3.4600e- 003	1.0000e- 005	6.1000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.7000e- 004	0.0000	0.5408	0.5408	3.0000e- 005	0.0000	0.5414

# 3.5 Building Construction - 2016 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1141	0.9550	0.6200	9.0000e- 004		0.0659	0.0659		0.0619	0.0619	0.0000	81.1215	81.1215	0.0201	0.0000	81.5440
Total	0.1141	0.9550	0.6200	9.0000e- 004		0.0659	0.0659		0.0619	0.0619	0.0000	81.1215	81.1215	0.0201	0.0000	81.5440

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>7</sup> /yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.1617	0.3146	4.0000e- 004	0.0109	2.5300e- 003	0.0134	3.1100e- 003	2.3200e- 003	5.4400e- 003	0.0000	36.0346	36.0346	2.9000e- 004	0.0000	36.0406
Worker	0.0163	0.0194	0.2037	4.3000e- 004	0.0357	2.7000e- 004	0.0360	9.4900e- 003	2.5000e- 004	9.7400e- 003	0.0000	31.8388	31.8388	1.7000e- 003	0.0000	31.8745
Total	0.0418	0.1811	0.5183	8.3000e- 004	0.0466	2.8000e- 003	0.0494	0.0126	2.5700e- 003	0.0152	0.0000	67.8733	67.8733	1.9900e- 003	0.0000	67.9151

# 3.5 Building Construction - 2016

#### **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
- Cil rioda	0.1141	0.9550	0.6200	9.0000e- 004		0.0659	0.0659	 	0.0619	0.0619	0.0000	81.1214	81.1214	0.0201	0.0000	81.5439
Total	0.1141	0.9550	0.6200	9.0000e- 004		0.0659	0.0659		0.0619	0.0619	0.0000	81.1214	81.1214	0.0201	0.0000	81.5439

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.1617	0.3146	4.0000e- 004	0.0109	2.5300e- 003	0.0134	3.1100e- 003	2.3200e- 003	5.4400e- 003	0.0000	36.0346	36.0346	2.9000e- 004	0.0000	36.0406
Worker	0.0163	0.0194	0.2037	4.3000e- 004	0.0357	2.7000e- 004	0.0360	9.4900e- 003	2.5000e- 004	9.7400e- 003	0.0000	31.8388	31.8388	1.7000e- 003	0.0000	31.8745
Total	0.0418	0.1811	0.5183	8.3000e- 004	0.0466	2.8000e- 003	0.0494	0.0126	2.5700e- 003	0.0152	0.0000	67.8733	67.8733	1.9900e- 003	0.0000	67.9151

# 3.5 Building Construction - 2017 Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.1008	0.8582	0.5892	8.7000e- 004		0.0579	0.0579		0.0544	0.0544	0.0000	77.8307	77.8307	0.0192	0.0000	78.2330
Total	0.1008	0.8582	0.5892	8.7000e- 004		0.0579	0.0579		0.0544	0.0544	0.0000	77.8307	77.8307	0.0192	0.0000	78.2330

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.1388	0.2791	3.9000e- 004	0.0106	2.0700e- 003	0.0126	3.0200e- 003	1.9000e- 003	4.9200e- 003	0.0000	34.3701	34.3701	2.6000e- 004	0.0000	34.3756
Worker	0.0140	0.0168	0.1763	4.1000e- 004	0.0346	2.5000e- 004	0.0349	9.2100e- 003	2.3000e- 004	9.4400e- 003	0.0000	29.6664	29.6664	1.5100e- 003	0.0000	29.6980
Total	0.0353	0.1557	0.4554	8.0000e- 004	0.0452	2.3200e- 003	0.0475	0.0122	2.1300e- 003	0.0144	0.0000	64.0365	64.0365	1.7700e- 003	0.0000	64.0736

# 3.5 Building Construction - 2017 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.1008	0.8582	0.5892	8.7000e- 004		0.0579	0.0579		0.0544	0.0544	0.0000	77.8306	77.8306	0.0192	0.0000	78.2329
Total	0.1008	0.8582	0.5892	8.7000e- 004		0.0579	0.0579		0.0544	0.0544	0.0000	77.8306	77.8306	0.0192	0.0000	78.2329

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.1388	0.2791	3.9000e- 004	0.0106	2.0700e- 003	0.0126	3.0200e- 003	1.9000e- 003	4.9200e- 003	0.0000	34.3701	34.3701	2.6000e- 004	0.0000	34.3756
Worker	0.0140	0.0168	0.1763	4.1000e- 004	0.0346	2.5000e- 004	0.0349	9.2100e- 003	2.3000e- 004	9.4400e- 003	0.0000	29.6664	29.6664	1.5100e- 003	0.0000	29.6980
Total	0.0353	0.1557	0.4554	8.0000e- 004	0.0452	2.3200e- 003	0.0475	0.0122	2.1300e- 003	0.0144	0.0000	64.0365	64.0365	1.7700e- 003	0.0000	64.0736

3.6 Architectural Coating - 2016 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.7408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.0676	0.0537	8.0000e- 005		5.6000e- 003	5.6000e- 003		5.6000e- 003	5.6000e- 003	0.0000	7.2768	7.2768	8.6000e- 004	0.0000	7.2948
Total	0.7513	0.0676	0.0537	8.0000e- 005		5.6000e- 003	5.6000e- 003		5.6000e- 003	5.6000e- 003	0.0000	7.2768	7.2768	8.6000e- 004	0.0000	7.2948

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7700e- 003	3.3100e- 003	0.0347	7.0000e- 005	6.0700e- 003	5.0000e- 005	6.1200e- 003	1.6100e- 003	4.0000e- 005	1.6600e- 003	0.0000	5.4173	5.4173	2.9000e- 004	0.0000	5.4234
Total	2.7700e- 003	3.3100e- 003	0.0347	7.0000e- 005	6.0700e- 003	5.0000e- 005	6.1200e- 003	1.6100e- 003	4.0000e- 005	1.6600e- 003	0.0000	5.4173	5.4173	2.9000e- 004	0.0000	5.4234

# 3.6 Architectural Coating - 2016 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.7408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.0676	0.0537	8.0000e- 005		5.6000e- 003	5.6000e- 003		5.6000e- 003	5.6000e- 003	0.0000	7.2768	7.2768	8.6000e- 004	0.0000	7.2948
Total	0.7513	0.0676	0.0537	8.0000e- 005		5.6000e- 003	5.6000e- 003		5.6000e- 003	5.6000e- 003	0.0000	7.2768	7.2768	8.6000e- 004	0.0000	7.2948

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7700e- 003	3.3100e- 003	0.0347	7.0000e- 005	6.0700e- 003	5.0000e- 005	6.1200e- 003	1.6100e- 003	4.0000e- 005	1.6600e- 003	0.0000	5.4173	5.4173	2.9000e- 004	0.0000	5.4234
Total	2.7700e- 003	3.3100e- 003	0.0347	7.0000e- 005	6.0700e- 003	5.0000e- 005	6.1200e- 003	1.6100e- 003	4.0000e- 005	1.6600e- 003	0.0000	5.4173	5.4173	2.9000e- 004	0.0000	5.4234

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# 3.6 Architectural Coating - 2017 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.9747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.0819	0.0701	1.1000e- 004		6.5000e- 003	6.5000e- 003		6.5000e- 003	6.5000e- 003	0.0000	9.5747	9.5747	1.0100e- 003	0.0000	9.5959
Total	0.9871	0.0819	0.0701	1.1000e- 004		6.5000e- 003	6.5000e- 003		6.5000e- 003	6.5000e- 003	0.0000	9.5747	9.5747	1.0100e- 003	0.0000	9.5959

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2300e- 003	3.8800e- 003	0.0407	1.0000e- 004	7.9900e- 003	6.0000e- 005	8.0500e- 003	2.1200e- 003	5.0000e- 005	2.1800e- 003	0.0000	6.8461	6.8461	3.5000e- 004	0.0000	6.8534
Total	3.2300e- 003	3.8800e- 003	0.0407	1.0000e- 004	7.9900e- 003	6.0000e- 005	8.0500e- 003	2.1200e- 003	5.0000e- 005	2.1800e- 003	0.0000	6.8461	6.8461	3.5000e- 004	0.0000	6.8534

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# 3.6 Architectural Coating - 2017 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.9747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.0819	0.0701	1.1000e- 004		6.5000e- 003	6.5000e- 003	 	6.5000e- 003	6.5000e- 003	0.0000	9.5747	9.5747	1.0100e- 003	0.0000	9.5959
Total	0.9871	0.0819	0.0701	1.1000e- 004		6.5000e- 003	6.5000e- 003		6.5000e- 003	6.5000e- 003	0.0000	9.5747	9.5747	1.0100e- 003	0.0000	9.5959

#### **Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2300e- 003	3.8800e- 003	0.0407	1.0000e- 004	7.9900e- 003	6.0000e- 005	8.0500e- 003	2.1200e- 003	5.0000e- 005	2.1800e- 003	0.0000	6.8461	6.8461	3.5000e- 004	0.0000	6.8534
Total	3.2300e- 003	3.8800e- 003	0.0407	1.0000e- 004	7.9900e- 003	6.0000e- 005	8.0500e- 003	2.1200e- 003	5.0000e- 005	2.1800e- 003	0.0000	6.8461	6.8461	3.5000e- 004	0.0000	6.8534

# 4.0 Operational Detail - Mobile

### **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.6075	1.4642	6.7141	0.0146	1.0235	0.0197	1.0432	0.2742	0.0181	0.2923	0.0000	1,110.856 9	1,110.856 9	0.0465	0.0000	1,111.834 3
Unmitigated	0.6075	1.4642	6.7141	0.0146	1.0235	0.0197	1.0432	0.2742	0.0181	0.2923	0.0000	1,110.856 9	1,110.856 9	0.0465	0.0000	1,111.834 3

### **4.2 Trip Summary Information**

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	945.48	945.48	945.48	2,749,744	2,749,744
Parking Lot	0.00	0.00	0.00		
Total	945.48	945.48	945.48	2,749,744	2,749,744

### 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Unrefrigerated Warehouse-No	10.00	5.00	6.50	59.00	0.00	41.00	92	5	3
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504380	0.068251	0.178421	0.147199	0.044767	0.006294	0.020809	0.016358	0.002307	0.002286	0.006181	0.000572	0.002175

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# 5.9 Elaet yyxDetail

Historical Energy Use: N

### **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	198.1167	198.1167	0.0119	2.4600e- 003	199.1297
Electricity Unmitigated						0.0000	0.0000	,	0.0000	0.0000	0.0000	203.2399	203.2399	0.0122	2.5300e- 003	204.2792
NaturalGas Mitigated	4.8000e- 004	4.3500e- 003	3.6500e- 003	3.0000e- 005		3.3000e- 004	3.3000e- 004	,	3.3000e- 004	3.3000e- 004	0.0000	4.7333	4.7333	9.0000e- 005	9.0000e- 005	4.7621
NaturalGas Unmitigated	6.8000e- 004	6.2100e- 003	5.2200e- 003	4.0000e- 005		4.7000e- 004	4.7000e- 004	y : : :	4.7000e- 004	4.7000e- 004	0.0000	6.7618	6.7618	1.3000e- 004	1.2000e- 004	6.8029

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Unrefrigerated Warehouse-No	126711	6.8000e- 004	6.2100e- 003	5.2200e- 003	4.0000e- 005		4.7000e- 004	4.7000e- 004		4.7000e- 004	4.7000e- 004	0.0000	6.7618	6.7618	1.3000e- 004	1.2000e- 004	6.8029
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		6.8000e- 004	6.2100e- 003	5.2200e- 003	4.0000e- 005		4.7000e- 004	4.7000e- 004		4.7000e- 004	4.7000e- 004	0.0000	6.7618	6.7618	1.3000e- 004	1.2000e- 004	6.8029

#### **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	88697.7	4.8000e- 004	4.3500e- 003	3.6500e- 003	3.0000e- 005	       	3.3000e- 004	3.3000e- 004		3.3000e- 004	3.3000e- 004	0.0000	4.7333	4.7333	9.0000e- 005	9.0000e- 005	4.7621
Total		4.8000e- 004	4.3500e- 003	3.6500e- 003	3.0000e- 005		3.3000e- 004	3.3000e- 004		3.3000e- 004	3.3000e- 004	0.0000	4.7333	4.7333	9.0000e- 005	9.0000e- 005	4.7621

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# 5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Parking Lot	89760	19.6582	1.1800e- 003	2.4000e- 004	19.7587
Unrefrigerated Warehouse-No	838242	183.5817	0.0110	2.2800e- 003	184.5205
Total		203.2399	0.0122	2.5200e- 003	204.2792

#### **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Parking Lot	89760	19.6582	1.1800e- 003	2.4000e- 004	19.7587
Unrefrigerated Warehouse-No Rail	814849	178.4585	0.0107	2.2200e- 003	179.3711
Total		198.1167	0.0119	2.4600e- 003	199.1297

#### 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					ton	s/yr							МП	-/yr		
Mitigated	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131
Unmitigated	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131

### 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Architectural Coating	0.1715					0.0000	0.0000	! !	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3500	<del></del>	1 1 1			0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.3000e- 004	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005	1 1 1 1 1	2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131
Total	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131

# 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	СО	SO2	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					ton	s/yr						MT	7/yr			
Architectural Coating	0.1715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3500		1       			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.3000e- 004	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131
Total	1.5222	6.0000e- 005	6.4800e- 003	0.0000		2.0000e- 005	2.0000e- 005		2.0000e- 005	2.0000e- 005	0.0000	0.0124	0.0124	3.0000e- 005	0.0000	0.0131

### 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		МТ	√yr	
	. 01.1200	0.0726	0.0442	96.6472
Ommigatou	81.4289	0.0723	0.0441	96.6250

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## 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	/yr	
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	56.351 / 0	81.4289	0.0723	0.0441	96.6250
Total		81.4289	0.0723	0.0441	96.6250

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	-/yr	
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	56.351 / 0	81.4289	0.0726	0.0442	96.6472
Total		81.4289	0.0726	0.0442	96.6472

### 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	√yr	
Willingutou	46.4971	2.7479	0.0000	104.2030
Unmitigated	46.4971	2.7479	0.0000	104.2030

## 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	√yr	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	229.06	46.4971	2.7479	0.0000	104.2030
Total		46.4971	2.7479	0.0000	104.2030

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### 8.2 Waste by Land Use

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	229.06	46.4971	2.7479	0.0000	104.2030
Total		46.4971	2.7479	0.0000	104.2030

# 9.0 Operational Offroad

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

# 10.0 Vegetation

### **Fruitridge Warehouse**

#### **Sacramento County, Mitigation Report**

### **Construction Mitigation Summary**

Phase	ROG	NOx	СО	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				Percent I	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

**OFFROAD Equipment Mitigation** 

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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	4	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	3	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	6	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

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Equipment Type	ROG	NOx	СО	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
	Unmitigated tons/yr							Unmitigated mt/yr						
Air Compressors	2.29600E-002	1.49550E-001	1.23740E-001	2.00000E-004	1.21000E-002	1.21000E-002	0.00000E+000	1.68515E+001	1.68515E+001	1.87000E-003	0.00000E+000	1.68907E+001		
Concrete/Industria I Saws	3.23000E-003	2.31100E-002	1.88800E-002	3.00000E-005	1.74000E-003	1.74000E-003	0.00000E+000	2.68829E+000	2.68829E+000	2.60000E-004	0.00000E+000	2.69375E+000		
Cranes	3.95300E-002	4.68850E-001	1.65880E-001	3.30000E-004	2.11000E-002	1.94100E-002	0.00000E+000	3.04807E+001	3.04807E+001	9.26000E-003	0.00000E+000	3.06753E+001		
Excavators	1.00900E-002	1.15200E-001	8.91400E-002	1.40000E-004	5.67000E-003	5.22000E-003	0.00000E+000	1.29708E+001	1.29708E+001	3.91000E-003	0.00000E+000	1.30530E+001		
Forklifts	4.33700E-002	3.74380E-001	2.48720E-001	3.00000E-004	3.11100E-002	2.86200E-002	0.00000E+000	2.82918E+001	2.82918E+001	8.60000E-003	0.00000E+000	2.84724E+001		
Generator Sets	3.99400E-002	3.07050E-001	2.50040E-001	4.30000E-004	2.11100E-002	2.11100E-002	0.00000E+000	3.73037E+001	3.73037E+001	3.22000E-003	0.00000E+000	3.73713E+001		
Graders	1.12100E-002	1.14180E-001	5.42000E-002	7.00000E-005	6.41000E-003	5.90000E-003	0.00000E+000	6.48045E+000	6.48045E+000	1.95000E-003	0.00000E+000	6.52150E+000		
Pavers	4.41000E-003	4.96400E-002	3.13700E-002	5.00000E-005	2.47000E-003	2.27000E-003	0.00000E+000	4.68043E+000	4.68043E+000	1.41000E-003	0.00000E+000	4.71008E+000		
Paving Equipment	3.38000E-003	3.92400E-002	2.79800E-002	4.00000E-005	1.95000E-003	1.79000E-003	0.00000E+000	4.15810E+000	4.15810E+000	1.25000E-003	0.00000E+000	4.18444E+000		
Rollers	3.71000E-003	3.42400E-002	2.21500E-002	3.00000E-005	2.52000E-003	2.32000E-003	0.00000E+000	2.71907E+000	2.71907E+000	8.20000E-004	0.00000E+000	2.73629E+000		
Rubber Tired Dozers	2.60000E-002	2.91280E-001	2.20180E-001	1.90000E-004	1.35500E-002	1.24700E-002	0.00000E+000	1.75922E+001	1.75922E+001	5.31000E-003	0.00000E+000	1.77036E+001		
Tractors/Loaders/ Backhoes	6.82100E-002	6.53340E-001	4.96000E-001	6.40000E-004	4.98400E-002	4.58500E-002	0.00000E+000	6.01434E+001	6.01434E+001	1.82600E-002	0.00000E+000	6.05268E+001		
Welders	3.51100E-002	1.16940E-001	1.28150E-001	1.70000E-004	8.91000E-003	8.91000E-003	0.00000E+000	1.24226E+001	1.24226E+001	2.86000E-003	0.00000E+000	1.24825E+001		

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Equipment Type	ROG	NOx	СО	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
		М	itigated tons/yr				Mitigated mt/yr						
Air Compressors	2.29600E-002	1.49550E-001	1.23740E-001	2.00000E-004	1.21000E-002	1.21000E-002	0.00000E+000	1.68515E+001	1.68515E+001	1.87000E-003	0.00000E+000	1.68907E+001	
Concrete/Industrial Saws	3.23000E-003	2.31100E-002	1.88800E-002	3.00000E-005	1.74000E-003	1.74000E-003	0.00000E+000	2.68828E+000	2.68828E+000	2.60000E-004	0.00000E+000	2.69375E+000	
Cranes	3.95300E-002	4.68850E-001	1.65880E-001	3.30000E-004	2.11000E-002	1.94100E-002	0.00000E+000	3.04807E+001	3.04807E+001	9.26000E-003	0.00000E+000	3.06752E+001	
Excavators	1.00900E-002	1.15200E-001	8.91400E-002	1.40000E-004	5.67000E-003	5.21000E-003	0.00000E+000	1.29708E+001	1.29708E+001	3.91000E-003	0.00000E+000	1.30530E+001	
Forklifts	4.33700E-002	3.74380E-001	2.48720E-001	3.00000E-004	3.11100E-002	2.86200E-002	0.00000E+000	2.82918E+001	2.82918E+001	8.60000E-003	0.00000E+000	2.84724E+001	
Generator Sets	3.99400E-002	3.07050E-001	2.50040E-001	4.30000E-004	2.11100E-002	2.11100E-002	0.00000E+000	3.73037E+001	3.73037E+001	3.22000E-003	0.00000E+000	3.73713E+001	
Graders	1.12100E-002	1.14180E-001	5.42000E-002	7.00000E-005	6.41000E-003	5.90000E-003	0.00000E+000	6.48044E+000	6.48044E+000	1.95000E-003	0.00000E+000	6.52149E+000	
Pavers	4.41000E-003	4.96400E-002	3.13700E-002	5.00000E-005	2.47000E-003	2.27000E-003	0.00000E+000	4.68042E+000	4.68042E+000	1.41000E-003	0.00000E+000	4.71007E+000	
Paving Equipment	3.38000E-003	3.92400E-002	2.79800E-002	4.00000E-005	1.95000E-003	1.79000E-003	0.00000E+000	4.15810E+000	4.15810E+000	1.25000E-003	0.00000E+000	4.18444E+000	
Rollers	3.71000E-003	3.42400E-002	2.21500E-002	3.00000E-005	2.52000E-003	2.32000E-003	0.00000E+000	2.71906E+000	2.71906E+000	8.20000E-004	0.00000E+000	2.73629E+000	
Rubber Tired Dozers	2.60000E-002	2.91280E-001	2.20180E-001	1.90000E-004	1.35500E-002	1.24700E-002	0.00000E+000	1.75922E+001	1.75922E+001	5.31000E-003	0.00000E+000	1.77036E+001	
Tractors/Loaders/Ba ckhoes	6.82100E-002	6.53340E-001	4.96000E-001	6.40000E-004	4.98400E-002	4.58500E-002	0.00000E+000	6.01433E+001	6.01433E+001	1.82600E-002	0.00000E+000	6.05267E+001	
Welders	3.51100E-002	1.16940E-001	1.28140E-001	1.70000E-004	8.91000E-003	8.91000E-003	0.00000E+000	1.24226E+001	1.24226E+001	2.86000E-003	0.00000E+000	1.24825E+001	

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Equipment Type	ROG	NOx	СО	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
	Percent Reduction													
Air Compressors	Air Compressors 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 1.18684E-006 0.00000E+000 0.00000E+000 1.18684E-006 0.00000E+000 0.0000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.00000E+000 0.0000E+000 0.00000E+000 0.00													
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.71984E-006	3.71984E-006	0.00000E+000	0.00000E+000	0.00000E+000		
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.84230E-007	9.84230E-007	0.00000E+000	0.00000E+000	1.30398E-006		
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.91571E-003	0.00000E+000	1.54192E-006	1.54192E-006	0.00000E+000	0.00000E+000	7.66109E-007		
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.06038E-006	1.06038E-006	0.00000E+000	0.00000E+000	1.05365E-006		
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07228E-006	1.07228E-006	0.00000E+000	0.00000E+000	1.33793E-006		
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.54310E-006	1.54310E-006	0.00000E+000	0.00000E+000	1.53339E-006		
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.13656E-006	2.13656E-006	0.00000E+000	0.00000E+000	2.12311E-006		
Paving Equipment	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		
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.67773E-006	3.67773E-006	0.00000E+000	0.00000E+000	0.00000E+000		
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.13687E-006	1.13687E-006	0.00000E+000	0.00000E+000	1.12971E-006		
Tractors/Loaders/Ba ckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16389E-006	1.16389E-006	0.00000E+000	0.00000E+000	1.32173E-006		
Welders	0.00000E+000	0.00000E+000	7.80336E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.04987E-007	8.04987E-007	0.00000E+000	0.00000E+000	1.60224E-006		

#### **Fugitive Dust Mitigation**

Yes/I	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)	

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

		Unmitigated Mitigated		Percent	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	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.09	0.02	0.09	0.02	0.00	0.00
Demolition	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.08	0.04	0.08	0.04	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

**Operational Percent Reduction Summary** 

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Category	ROG	NOx	СО	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	2.52	2.52	2.54	2.38	2.52
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	29.41	29.95	30.08	25.00	29.79	29.79	0.00	30.00	30.00	30.77	25.00	30.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.37	-0.11	-0.02
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			1
No	Land Use	Increase Diversity	0.07	0.27		#
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	9		,
	Land Use	Land Use SubTotal	0.00	9		<b>,</b>

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		1 ago o o. 10		Date. 5/5/2016 3.57 PW	
No	Neighborhood Enhancements	Improve Pedestrian Network	10		
No	; Neighborhood Enhancements	Provide Traffic Calming Measures	"		
No	Neighborhood Enhancements	 ;Implement NEV Network	0.00		<del> </del>
	;Neighborhood Enhancements		0.00	<u>-</u>	<del> </del>
No	Parking Policy Pricing	Limit Parking Supply	0.00	<del> </del>	<del></del>
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		<del></del>
No	Parking Policy Pricing	On-street Market Pricing	0.00		<del></del>
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		<del></del>
No	Transit Improvements	Provide BRT System	0.00		<del></del>
No	Transit Improvements	Expand Transit Network	0.00		<del></del>
No	Transit Improvements	Increase Transit Frequency	0.00		<del></del>
	Transit Improvements	Transit Improvements Subtotal	0.00		<del></del>
	 	Land Use and Site Enhancement Subtotal	0.00		<del></del>
No	Commute	Implement Trip Reduction Program			<del></del>
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		1
No	Commute	Employee Vanpool/Shuttle	0.00	2.0	0
No	Commute	Provide Ride Sharing Program			<del></del>
	Commute	Commute Subtotal	0.00	 	<del></del>

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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	1
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)	150.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	!
No	% Electric Chainsaw	! !

# **Energy Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement	
ClothWasher			30.00

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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	