City of
SACRAMENTO
Community Development

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

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

REVISED 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:

Fairgrounds Subdivision Project (P18-048) The proposed project is located at 325 Fairgrounds Drive, within the City of Sacramento, Sacramento County (APN: 011-0370-001 through -021; -024 through -029; -032 through -039; -042, 011-0360-024 through -039, 011-0350-024 through -043, 011-0340-001 through -018; -022 through -040). The proposed project consists of redeveloping a portion of the Greenfair area and creating 68 single family homes. It is proposed that the project will conform with the R1A zoning district. The minimum proposed width of the lots is 42 feet and minimum proposed depth is 80 feet. The minimum proposed lot size is 3,552 square feet. The minimum proposed side setback is 5 feet on either side and 12.5 feet on the street side. There will also be approximately one on-street parking space for every two lots. The design review of the homes will be processed as a separate application.

The project requires a General Plan Amendment from Traditional Neighborhood High Density to Traditional Neighborhood Medium Density designation, a Rezone from the Multi-Unit Dwelling (R-3) zone to the Single-Unit or Duplex Dwelling Unit (R-1A) zone, and a Tentative Subdivision Map to create 68 parcels. No house plans or elevations are proposed at this time and future planning entitlements will be required for design review of the house plans. The requested entitlements require approval by the City Council.

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

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

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

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

By: Scott Johnson

Date: May 9, 2019

City of SACRAMENTO

Initial Study/Proposed Mitigated Negative Declaration
Fairgrounds Subdivision Project (P18-048)

Prepared for:

City of Sacramento
Community Development Department
Environmental Planning Services
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MAY 2019

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1 INTRODUCTION

1.1 Project Overview

The Fairgrounds Subdivision project (proposed project) site is located in the City of Sacramento (City) north of Broadway between 53rd and 56th Streets in the southeastern portion of the City. The approximately 8.7-acre project site is located adjacent to Fairgrounds Drive, as shown on Figure 1, Regional Map and Figure 2, Project Location Map. The site is bounded on the north, east and west by Fairgrounds Drive, and on the south by undeveloped land and existing residential uses that include private tennis courts and a pool. The project site is generally flat and sits at an elevation of approximately 34 feet above mean sea level. The site is undeveloped with the exception of 16 carports and small parking areas and sidewalks that are remnants of the prior residential development, numerous mature trees, and non-native grass.

The proposed project includes subdividing the site into 68 single-family lots and internal roadways, as shown in Figure 3, Site Plan and described in more detail in Section 2, below.

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA) serves as the main framework of environmental law and policy in California. CEQA emphasizes the need for public disclosure and identifying and preventing environmental damage associated with proposed projects. Unless the project is deemed categorically exempt, CEQA is applicable to any discretionary project that must be approved by a public agency in order to be processed and established. This project does not fall under any of the statutory or categorical exemptions listed in the 2016 CEQA Statute and Guidelines (California Public Resources Code, Section 21000 et seq.; 14 California Code of Regulations (CCR) 15000 et seq.), and, therefore, must meet CEQA requirements.

1.3 Project Planning Setting

City of Sacramento 2035 General Plan

The City adopted the 2035 Sacramento General Plan in March 2015. The General Plan includes policy guidelines to guide future development in the City and provide for the protection of the City's resources. The proposed project would comply with the goals and policies set forth in the City's 2035 General Plan as well as the City's Single Family Residential Design Principles.

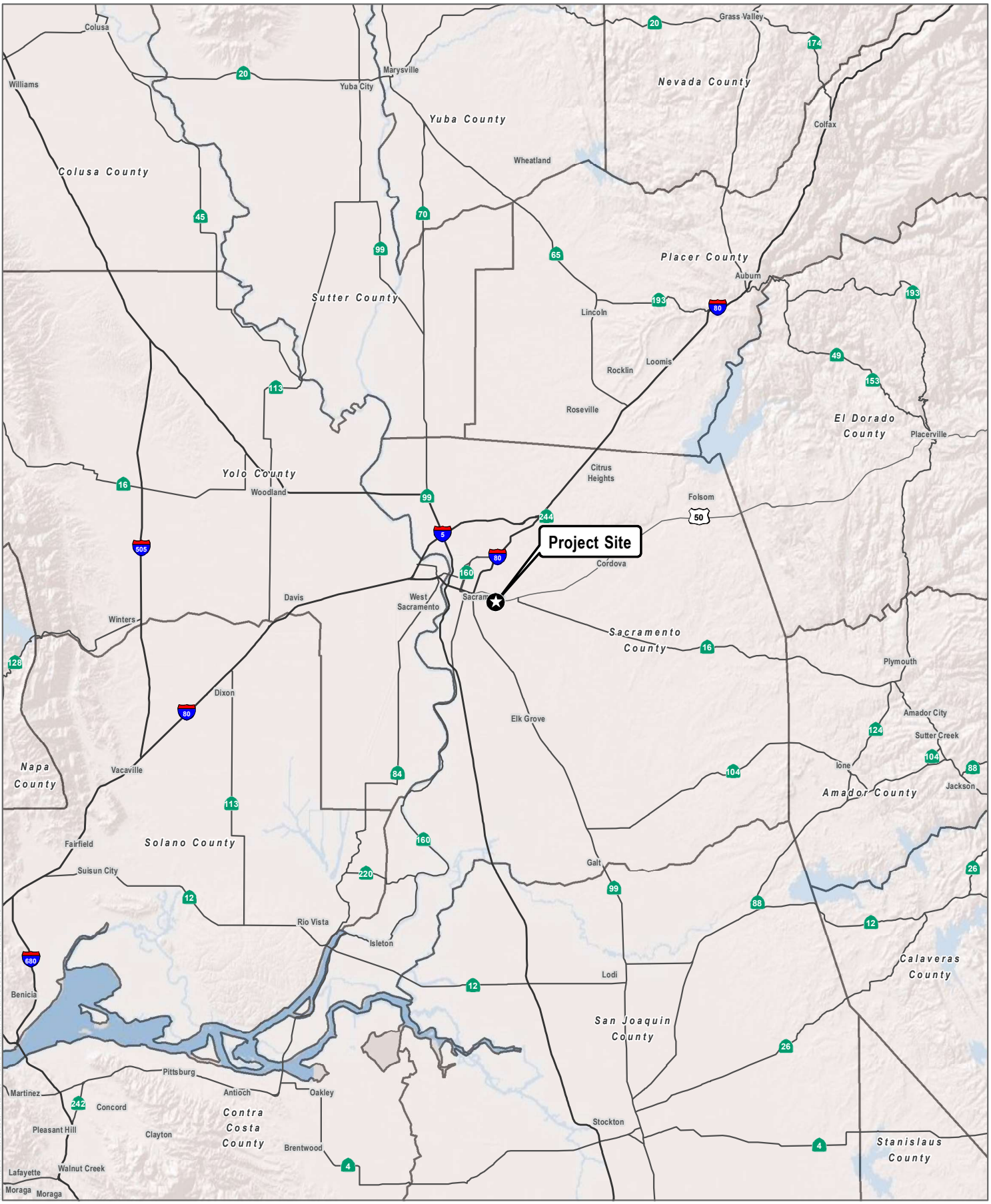
The proposed project is located in the Tahoe Park neighborhood and is designated as Traditional Neighborhood High Density (18-36 dwelling units/acre) and is zoned Medium Density R-3.

1.4 Public and Agency Review

This Initial Study is being circulated for public and agency review during the comment period identified in the Notice of Availability/Notice of Intent. Copies of this document are available for review on the City's website at http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports and at the public counter at the City of Sacramento, Community Development Department, Environmental Planning Services, 300 Richards Boulevard, Third Floor, Sacramento, California 95811.

Comments should be sent to:

Ron Bess, Assistant Planner
Community Development Department, Environmental Planning Services
300 Richards Blvd, Third Floor
Sacramento, California 95811
Direct Line: 916.808.8272
rbess@cityofsacramento.org



SOURCE: Esri 2018

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0 5 10 Miles

FIGURE 1

Regional Map

Fairgrounds Subdivision Project

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SOURCE: Bing Maps 2018; Sacramento County 2016

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0 150 300 Feet

FIGURE 2

Project Location Map

Fairgrounds Subdivision Project

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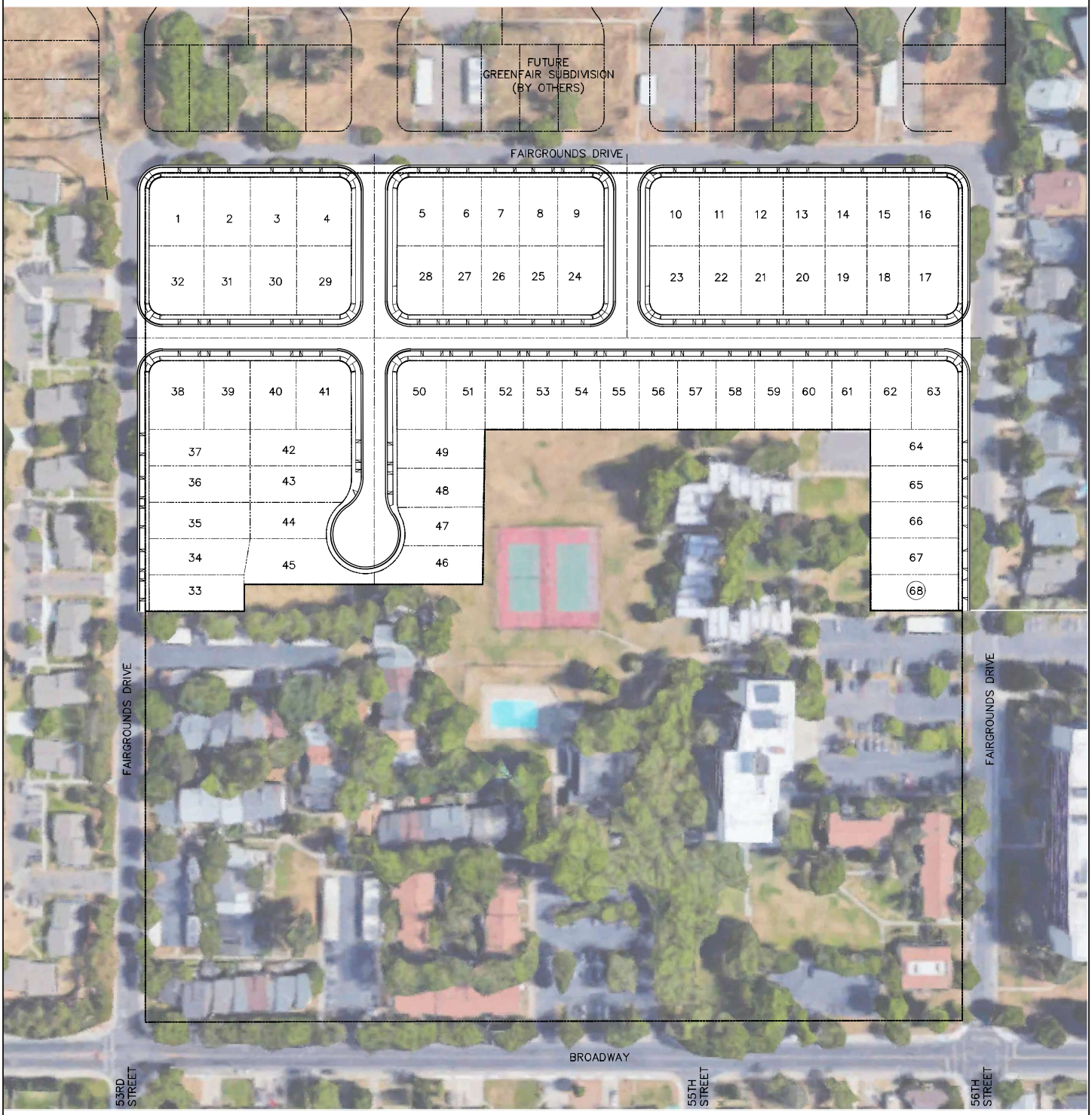

SOURCE: Phillippi Engineering 2018

FIGURE 3

Site Plan

Fairgrounds Subdivision Project

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2 PROJECT DESCRIPTION

2.1 Project Location

The approximately 8.7-acre project site (APN's: 011-0370-001 through 021, 024 through 029, 032-through 039, 042; 011-0360-024 through 039; 011-0350-024 through 043; 011-0340-001 through 018; 011-0340-22 through 040) is located in the southeastern portion of the City in the Fairgrounds neighborhood, north of Broadway along Fairgrounds Drive, between 53rd and 56th Streets, as shown on Figure 2, Project Location Map. Land to the north is currently under construction as part of The Grounds at Tahoe Park project that includes development of 44 single-family residential lots. Single-story multi-family affordable housing units are located across Fairgrounds Drive to the west, single-family residences are located across Fairgrounds Drive to the east, and a multi-story senior housing development is located to the south along with multi-family units, undeveloped land, and a private recreation area managed by the Greenfair Homeowners Association that includes tennis courts and a pool. A small City park, Greenfair Park, is located adjacent to the senior housing development to the south and east of the project site. The U.C. Davis Medical Center campus is located west of the project site at 50th Street and Broadway.

2.2 Project Background

The project site is located within a portion of the old state fairgrounds on land that was purchased in 1909, after outgrowing the original site in downtown at 20th and E Streets. To accommodate an increase in population 80 acres of land was purchased just outside the city limits on Stockton Boulevard for the fairgrounds. Continued growth caused that site to be expanded by 75 acres in 1937. In 1948, the state purchased approximately 900 acres of undeveloped land along the American River north of downtown Sacramento. Funds were not allocated to begin construction on this land until 1963, and the State Fair continued at the Stockton Boulevard site until 1967. In 1968, the new "Cal Expo" site was opened.

The project site was previously developed with apartments in the 1970s that were demolished a number of years ago due to defective building materials. The site has remained undeveloped with the exception of the carports and small parking areas that were not removed.

2.3 Existing Uses

The project site is currently undeveloped with the exception of 16 carports, sidewalks and paved parking areas along with 216 trees and areas of non-native grass. These are remnants of a prior apartment complex development that was removed a number of years ago. The project site is generally flat and sits at an elevation of approximately 34 feet above mean sea level. Access to the project site is provided via Fairgrounds Drive that connects to Broadway at two locations and wraps around the west, north, and east sides of the project site (see Figure 2).

The site is designated as Urban and Built Up Land on the Sacramento County Important Farmland Map (2016) prepared by the Department of Conservation Farmland Mapping and Monitoring Program (CDOC 2017).

2.4 Project Description

The proposed project includes amending the General Plan land use designation from Traditional Neighborhood High Density (18-36 du/ac) to Traditional Neighborhood ~~Low~~ Medium Density (8 ~~3~~-36 du/ac) and rezoning the site from Multi-Family Dwelling (R-3) to Single-Unit or Duplex Dwelling (R-1A). The project is requesting a tentative subdivision map to subdivide the 8.68-acre site into 68 single family lots with an average lot size of 3,552 square feet, along with internal roadways, sidewalks and landscaping, as shown on Figure 3. Based on an Arborist Report prepared for the project (see Appendix C) there are 216 trees on the site. Approximately 55 trees have been identified for removal due to compromised health or structural stability concerns. The removal of any protected private trees to accommodate the project is subject to compliance with the City's Tree Preservation Ordinance (Ord. 2016-0026; City Code Chapter 12.56). The carports, parking areas and sidewalks, and underground utilities present on the site would be removed to accommodate future development.

Transportation and Site Access

Access to the project site would be provided via two public roadway connections to Fairgrounds Drive along the north side of the project site, and roadway connections to Fairgrounds Drive on both the east and west sides of the project site, as shown on Figure 3. Internal streets would provide access throughout the site.

To facilitate safe pedestrian access, the project applicant agreed to install a push button pedestrian flashing beacon at the 53rd Street and Broadway intersection to allow pedestrians to safely cross the street. The project applicant has also agreed to pay the amount of $25,000 as a fair-share contribution towards a traffic signal upgrade at the intersection of Broadway and 56th Street, which would include the installation of a video-based vehicle detection system and traffic signal controller. Furthermore, the City may require the project to include traffic calming devices, such as undulations, stop signs, and additional 4-way intersections, along residential streets at its discretion.

Utilities

The project includes new on-site water, wastewater, and storm drain infrastructure. Existing City water and sewer lines include 8-inch lines along the north, west, and east portions of Fairgrounds Drive, as well as connections along the south side of the project site. There are 18-inch storm drain lines along the west and east side of the project site and 21 to 24-inch storm drain lines along the northern portion of the site. The project would install new on-site 8-inch water lines to form a looped system along with a 15-inch storm drain line and 8-inch sewer lines to serve the site.

2.5 Project Approvals

The project would require the following City discretionary approvals. Subsequent project review would include site plan and design review for proposed housing designs. This document would be used as the basis for evaluating all required subsequent project approvals.

- Adoption of the Mitigated Negative Declaration and Mitigation Monitoring Plan;
- Approval of a General Plan Amendment to change the land use designation from Traditional Neighborhood High Density to Traditional Neighborhood ~~Low~~ Medium Density;
- Approval of a re-zone from Multi-Family Dwelling (R-3) to Single-Unit or Duplex Dwelling (R-1A);
- Approval of a Tentative Subdivision Map to subdivide the property into 68 lots.
- Approval of a Tree Permit.

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3 INITIAL STUDY CHECKLIST AND DISCUSSION

Project title:

Fairgrounds Subdivision Project (P18-048)

Lead agency address:

City of Sacramento
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, California 95811

Contact person and phone number:

Ron Bess, Assistant Planner
Community Development Department, Environmental Planning Services
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Direct Line: 916.808.8272
rbess@cityofsacramento.org

Project Planner name and address:

Garrett Norman, Associate Planner
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916.808.7934

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 (MEIR). The 2035 General Plan designates this site for residential uses and the MEIR evaluated future use of this site for residential, although at a greater density than the project is proposing.

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 MEIR 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 MEIR 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 MEIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the MEIR (CEQA Guidelines Section 15177(d)). Policies included in the 2035 General Plan that reduce significant impacts identified in the MEIR are identified and discussed (see also the MEIR for the 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 MEIR. See City Council Resolution No. 2015-0060, beginning on page 60. The resolution is available at http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-ReportsReports.

This analysis incorporates by reference the general discussion portions of the 2035 General Plan MEIR. (CEQA Guidelines Section 15150(a)). The MEIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, California 95811, and on the City's web site at: http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-ReportsReports.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages. Incorporation of mitigation measures would ensure all impacts are reduced to less than significant.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☐ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☒ Transportation and Traffic	☒ Tribal Cultural Resources	☐ Utilities and Service Systems
☐ Mandatory Findings of Significance		

EVALUATION OF ENVIRONMENTAL IMPACTS

Land Use, Population and Housing, Agricultural and Forest Resources and Energy and Mineral Resources

Introduction

The California Environmental Quality Act (CEQA) requires the Lead Agency (City of Sacramento) to evaluate the impacts of a project on the existing physical conditions within the area that would be affected by the project. Included in this analysis is an evaluation of the proposed project's consistency with applicable general plans and regional plans. An inconsistency between the proposed project and an adopted land use plan would not constitute a physical change in the environment. However, although a project may not directly create a physical change in the environment by conflicting with an adopted plan, it may result in environmental effects as a result of changes in planning in the community regarding infrastructure and services, or by inducing population growth directly or indirectly. An evaluation of physical environmental impacts of the proposed project is included below in Sections 3.1 through 3.14.

This section of the Initial Study discusses impacts to land use and planning, including consistency with applicable land use designations, plans, and policies, population and housing, agricultural and forestry resources, energy and mineral resources.

Discussion

Land Use and Planning

The project site is designated as Traditional Neighborhood High Density in the 2035 General Plan and is zoned Multi-Family Dwelling (R-3), which is intended for traditional multi-family apartments. The project site is located in an urbanized portion of the City, adjacent to existing residential development, including multi-family affordable housing units to the west, single-family residences to the east, and a senior housing development to the south. The Grounds at Tahoe Park project, a 44-unit residential development, is under construction to the north of the project site. Undeveloped land along with a private recreation area with tennis courts and a pool is located to the south. A small City park, Greenfair Park is located adjacent to the east side of the multi-story senior housing development located to the southeast, adjacent to Fairgrounds Drive.

The current land use designation for the site allows a density range of 18 to 36 units per net acre. The proposed project is requesting to subdivide the site into 68 single-family lots on 8.68 acres for a density of 9~~8~~ units per acre.[1] Therefore, the proposed project would require a General Plan

[1] The project's density is calculated based on the net acreage of the site which is 7.67 acres.

Amendment from Traditional Neighborhood High Density to Traditional Neighborhood ~~Low~~ Medium Density and a rezone from Multi-Family Dwelling (R-3) to Single-Unit or Duplex Dwelling (R-1A) to be consistent with the lower density land use requirements. The project site has been designated for residential development in the 2035 General Plan and the proposed project would be consistent with this use as well as the surrounding land uses. With the approval of the General Plan Amendment and rezone, development of the project site would be consistent with the City's Planning and Development Code, and the amended planning designations.

Population and Housing

The project proposes amending the General Plan land use designation from Traditional Neighborhood High Density to Traditional Neighborhood ~~Low~~ Medium Density and rezoning the site from R-3 to R-1A. The project would subdivide the site into 68 single-family residential lots, increasing the population in this area. Based on 2.0 persons per household the project would add approximately 136 residents. As the project site does not contain any existing housing, development of the proposed project would not displace any existing housing units or people. Therefore, the proposed project would not result in the displacement of existing housing or people, or require the construction of replacement housing. Furthermore, the proposed project would result in a reduced added population than planned for in the City's 2035 General Plan MEIR. Therefore, the proposed project would result in a less-than-significant impact related to population and housing.

Agricultural and Forestry Resources

Section 4.1 in the City's 2035 General Plan MEIR evaluates the impact of development under the 2035 General Plan on agricultural resources. The MEIR concluded that buildout of the 2035 General Plan (including the project site) would have a less-than-significant impact on agricultural resources within the City, and would minimize the conversion of farmland outside of the City limits.

The project site is designated as Urban and Built-Up Land on the Sacramento County Important Farmland Map prepared by the Department of Conservation Farmland Mapping and Monitoring Program (CDOC 2017). The project site contains 216 trees, along with areas of non-native grass. Approximately 55 trees would be removed due to defects, compromised health, and/or structural instability. The removal of any protected private trees would be subject to the City's Tree Preservation Ordinance (Ord. 2016-0026; City Code Chapter 12.56). The project site is located in an urban area surrounded by residential uses and public facilities. The site and surrounding vicinity do not contain any agricultural or forestry resources. There are no existing Williamson Act contracts on any portion of the project site and no existing agricultural or timber-harvesting operations are located on or in the vicinity of the project site. For these reasons, the proposed project would result in no impact to agricultural and forestry resources.

Energy

The City's 2035 General Plan includes goals and policies to reduce energy usage within the City through use of energy-efficient technology and energy conservation. Policies U6.1.1 through U6.1.5 describe efforts the City should take to ensure provision of adequate electricity and natural gas services within the City and to reduce overall energy use. General Plan Policies U6.1.6 through U6.1.8 concentrate on encouraging the installation, construction, and use of renewable energy systems and facilities. In addition, Policies U6.1.9 through U6.1.17 call for the City to coordinate with regional organizations, businesses, utility providers, property owners and builders to increase energy efficiency within the City. The MEIR included an analysis of future development anticipated under the 2035 General Plan (which included development of the project site with higher density residential) and evaluated potential impacts to electricity and natural gas due to the increase in demand. The analysis found that impacts would be less than significant, as policies specified in the General Plan would ensure energy conservation, promote energy efficiency and renewable resource systems, and adequate provision of electricity and natural gas. The proposed project would require energy during project construction and operation. Energy use during project construction would consist of fuels used for construction equipment and vehicles, and energy use during project operation would include energy required for residential units and operation of the proposed push button pedestrian flashing signal at the 53rd Street and Broadway intersection. Proposed structures would be subject to Titles 20 and 24 of the California Code of Regulations, which propose measures to reduce energy use by implementing energy-efficient standards for residential and non-residential buildings.

The project site is located in a developed area of the City which is served by existing electrical and natural gas utility lines. The project would not result in a substantial increase in energy use within the City beyond what was evaluated in the MEIR; therefore, it would result in a less-than-significant impact regarding energy resources.

Mineral Resources

According to the California Department of Conservation (CDOC) Mineral Land Classification map, the project site is characterized as being within Mineral Resource Zone 1 (MRZ-1) (CDOC 1999). MRZ-1 describes areas where adequate information indicates that no significant mineral deposits are present, or where it has been determined that little likelihood exists for their presence.

The City's General Plan MEIR concluded that buildout of the 2035 General Plan would result in a less-than-significant impact on mineral resources that would be of importance to the state, region, or City. The project site is designated within MRZ-1, and would not be located in a zone that contains mineral deposits that would be of value to the state, region, or City. Therefore, the proposed project would have no impact on mineral resources.

3.1 Aesthetics

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
I. AESTHETICS – Would the project…			
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 uses?	☒	☐	☐
c) Substantially degrade the existing visual character of the site or its surroundings?	☒	☐	☐

Environmental Setting

The project site currently includes a network of pathways that are surrounded by non-native grass lawns and mature trees of various species. The site also includes 16 carports and paved parking areas (remnants of the prior development). Portions of the western edge of the site and the entirety of the northern and eastern boundaries of the site are lined with sidewalks. The western, northern, and eastern boundaries also contain street lights. The property to the north of the project site, across Fairgrounds Drive, is currently under development as part of The Grounds at Tahoe Park project that includes development of 44 residential lots. The project site is surrounded by gray and white single-story multi-family units to the west across Fairgrounds Drive, neutral-colored single-family residences to the east across Fairgrounds Drive, and a gray multi-story senior housing development to the south of the project site. A large grass lawn, and a private recreation area with tennis courts and a pool, are located immediately to the south of the project site. Landscaping within the surrounding area includes small trees, shrubs, and manicured lawns and groundcover.

The project site does not contain any scenic resources, is not designated as a scenic resource or vista, and is not visible from any designated scenic highways.

Standards of Significance

The significance criteria used to evaluate the project impacts to aesthetics is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if the project would:

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 uses.

c. Substantially degrade the existing visual character of the site or its surroundings.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.13 of the MEIR addresses the change in visual resources associated with future development under the 2035 General Plan. The MEIR concluded that as the City is largely built-out, new development within the City under the 2035 General Plan would result in less-than-significant impacts to scenic resources. Also due to the built-out nature of the City and compliance with general plan policies, building codes, and design review for larger projects, the MEIR found that development under the 2035 General Plan would result in less-than-significant impacts regarding lighting and glare. Relevant policies from the 2035 General Plan are included below.

Relevant 2035 General Plan Policies

The following 2035 General Plan goals and policies related to visual resources are applicable to the proposed project:

Land Use and Urban Design Element

Goal LU 2.3: City of Trees and Open Spaces: Maintain a multi-functional "green infrastructure" consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

Policy LU 2.3.2: Adjacent Development. The City shall require that development adjacent to parks and open spaces complements and benefits from this proximity by:

- preserving physical and visual access;
- requiring development to front, rather than back, onto these areas;
- using single-loaded streets along the edge to define and accommodate public access;
- providing pedestrian and multi-use trails;
- augmenting non-accessible habitat areas with adjoining functional parkland; and
- extending streets perpendicular to parks and open space and not closing off visual and/or physical access with development.

Environmental Resources Element

Goal ER 7.1: Visual Resource Preservation. Maintain and protect significant visual resources and aesthetics that define Sacramento.

Policy ER 7.1.3: Lighting. The City shall 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.

Policy ER 7.1.4: Reflective Glass. The City shall prohibit new development from (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.

Answers to Checklist Questions

a) Glare is produced when expansive surfaces reflect light, creating a nuisance and hazard for people in the vicinity. Large light-colored surfaces or glass are the most likely to produce glare. Building design is required to be consistent with General Plan Policy ER 7.1.4, which prohibits using reflective glass that exceeds 50 percent of any building surface, using mirrored glass or black glass that exceeds 25 percent of any surface of a building, using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, or using exposed concrete that exceeds 50 percent of the building. The proposed project is a residential development that typically does not include large areas of reflective glass surfaces. The project is required to comply with this policy and would not include materials or surfaces that would result in substantial glare that could cause a public hazard or annoyance. This is a less-than-significant impact.

b) The project site contains minimal lighting at present, with the exception of existing overhead street lights that line the western, northern, and eastern boundaries of the project site. Existing sources of light surrounding the project site include interior building lights from residential properties to the west, east, and south of the site. Future development of 68 single-family residential units would increase lighting on the project site. However, project lighting would not substantially increase lighting in the surrounding area, as the level of lighting would be consistent with the project surroundings that are developed and contain building lights and other light sources. Lighting included as part of the project is subject to the Uniform Building Code and Sacramento City Code requirements, ensuring that all external lighting would be downward facing and directed away from existing residential neighbors. The project would be designed consistent with Policy ER 7.1.3, which requires lights be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare. The project would not create a new source of light that would be directed towards oncoming traffic or any residential uses. Therefore, project impacts would be less than significant.

c) As described above, the project site is largely undeveloped land with pathways, areas of grass and trees, and parking lots with carports. The site has previously been developed since the early 1900s, but in the past thirty years the site has been vacant of any developed uses (with the exception of the carports and parking areas that remain from the prior development). The visual character of the site is currently represented by grass lawns, trees, small areas of asphalt and freestanding, low profile carports. The project site is surrounded by existing residential development to the west, east, and south. Land to the north is currently under construction with residential units. The proposed project would subdivide the project site into 68 single-family lots, consistent with surrounding uses and would remove approximately 55 existing trees due to defects, compromised health, and/or structural instability. The removal of any protected private trees would be subject to compliance with the City's Tree Preservation Ordinance (Ord. 2016-0026; City Code Chapter 12.56) and future landscaping would be designed consistent with the City Code residential landscaping requirements. Development of the site with single-family residences and associated landscaping would change the existing character of the site, but due to its location surrounded by development in an urban area of the city the change in visual character would not be considered substantial. The proposed new development would complement existing landscaping and building sizes that currently exist in the vicinity. Therefore, the change in visual character would be considered a less-than-significant impact.

Mitigation Measures

No mitigation would be required.

Findings

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

3.2 Air Quality

		No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
II.	**AIR QUALITY –** Would the project…			
a)	Result in construction emissions of NO_x above 85 pounds per day?	☐	☒	☐
b)	Result in operational emissions of NO_x or ROG above 65 pounds per day?	☐	☒	☐
c)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐
d)	Result in PM_{10} 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?	☐	☒	☐
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)?	☒	☐	☐
f)	Result in exposure of sensitive receptors to substantial pollutant concentrations?	☒	☐	☐
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?	☒	☐	☐
h)	Conflict with the Climate Action Plan?	☒	☐	☐

Environmental Setting

Ambient air quality is generally affected by climatological conditions, the topography of the air basin, the type and amounts of pollutants emitted, and, for some pollutants, sunlight. The project site is located within Sacramento Valley Air Basin (SVAB). Topographical and climatic factors in the SVAB create the potential for high concentrations of regional and local air pollutants. This section describes relevant characteristics of the air basin, types of air pollutants, health effects, and existing air quality levels.

The SVAB includes Sacramento, Shasta, Tehama, Butte, Glenn, Colusa, Sutter, Yuba, Yolo, and portions of Solano and Placer counties. The SVAB extends from south of Sacramento to north of Redding and is bounded on the west by the Coast Ranges and on the north and east by the Cascade Range and Sierra Nevada. The San Joaquin Valley Air Basin is located to the south.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the designated air quality management district for the City. SMAQMD has established significance thresholds for project construction and operational emissions within the City. Air pollutant emissions during proposed project construction and operation were modeled using CalEEMod and used in this analysis. A copy of the Air Quality and Greenhouse Gas Emissions Modeling Report is included in Appendix A.

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter equal to or less than 10 microns in aerodynamic diameter (PM_{10}), particulate matter equal to or less than 10 microns in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Existing Air Quality

Under both the federal and state Clean Air Acts, standards identifying the maximum allowable concentration of the criteria air pollutants have been adopted. The U.S. EPA has designated Sacramento County (which includes the City) as a nonattainment area for the federal 8-hour O_3 standard, and CARB has designated the County as a nonattainment area for the state 1-hour and 8 hour O_3 standards. The County has been designated as a nonattainment area for the state 24-hour and annual PM_{10} standards. The County is designated as a nonattainment area for the 2006 federal 24-hour $PM_{2.5}$ standard. The air basin is designated as unclassified or attainment for all other criteria air pollutants.

Sensitive Receptors

The project site is located in the southeastern portion of the City in an area almost entirely surrounded by residential development, with multi-family housing units located to the west, single-family residences located to the east, and a senior housing development located to the southeast. A residential development project is currently under construction to the north of the project site across Fairgrounds Drive. The closest sensitive receptors to the project site include single and multi-family residential uses adjacent to the project site, the closest of which is located approximately 30 feet to the south. The closest school to the project site is Tahoe Elementary School, located 0.3 mile to the southeast. The University of California, Davis Medical Center campus is located approximately 0.25 mile to the northwest.

Standards of Significance

The significance criteria used to evaluate the project impacts to air quality is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the project would:

a. Result in construction emissions of NO_x above 85 pounds per day.

b. Result in operational emissions of NO_x or ROG above 65 pounds per day.

c. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

d. Result in PM_{10} 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.

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).

f. Result in exposure of sensitive receptors to substantial pollutant concentrations.

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.

h. Conflict with the Climate Action Plan.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.2 of the MEIR addresses the air quality effects of development within the City under the 2035 General Plan. Policies included in the 2035 General Plan were considered to mitigate potential air quality impacts resulting from development under the 2035 General Plan. Although these policies would lessen impacts related to air quality, long-term operational emissions of ozone precursors and particulate matter would remain a significant and unavoidable impact of future development (Impact 4.2-3). The MEIR concluded that exposure to sources of toxic air contaminants (TACs) could also be a potentially significant impact. Policies outlined in the Environmental Resources (ER) Element would mitigate potential impacts related to TAC's to a less-than-significant level.

Relevant 2035 General Plan Policies

The following General Plan policies related to air quality are applicable to the proposed project:

Environmental Resources

Goal ER 6.1: Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that contribute to climate change.

Policy ER 6.1.2: New Development. The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and $PM_{2.5}$) through project design.

Policy ER 6.1.3: Emissions Reduction. The City shall require development projects that exceed SMAQMD ROG and NO_x operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.

Policy ER 6.1.14: Zero-Emission and Low-Emission Vehicle Use. The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Policy ER 6.1.15: Preference for Reduced-Emission Equipment. The City shall give preference to contractors using reduced-emission equipment for City construction projects and contracts for services (e.g., garbage collection), as well as businesses that practice sustainable operations.

Answers to Checklist Questions

a-g) ***Construction***

Construction of the proposed project would result in a temporary addition of pollutants to the local air shed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling demolition debris and from construction workers travelling to and from the site. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Therefore, an increment of day-to-day variability exists.

Pollutant emissions associated with construction of the proposed project were quantified using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. Default values provided by the program were used where detailed project information was not available.

It was assumed that total construction would occur over a period of 4 months. CalEEMod was used to quantify emissions of ozone precursors (ROG and NO_x) and coarse particulate

matter (PM_{10}) emissions from off-road equipment, grading, on-road worker vehicle emissions, and vendor delivery trips. Construction of the project would also generate carbon monoxide (CO), sulfur dioxide (SO_x) and fine particulate matter ($PM_{2.5}$) emissions; however, only the criteria air pollutants that the SMAQMD have adopted thresholds for are presented in Table 1, Estimated Construction Emissions. The results of the model outputs are provided in Appendix A.

Table 1
Estimated Construction Emissions

Year	NO_x	PM_{10}	$PM_{2.5}$
	pounds per day		
2019	45.62	10.66	6.71
2020	22.75	1.76	1.31
Pollutant Threshold	*85*	*80**	*82**
Threshold Exceeded?	**No**	**No**	**No**

Notes: Values shown are the maximum summer and winter daily emissions results from CalEEMod. Detailed results are included in Appendix A.
* SMAQMD PM Thresholds if all feasible BCECP/BMPs are applied
NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

As shown in Table 1, emissions of NO_x, PM_{10}, and $PM_{2.5}$ associated with construction activities would not exceed the SMAQMD significance thresholds because compliance with Basic Construction Emissions Control Practices (BCECP) and Best Management Practices (BMPs) was factored into the model. To ensure dust that generates particulate matter is minimized during construction, the proposed project would comply with the SMAQMD's Rule 403 - Fugitive Dust which requires, where possible, use of water or chemicals to control dust in the demolition of existing buildings or structures, construction operations, and the construction of roadways or the clearing of land; and the application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.

To ensure compliance with the SMAQMD thresholds, mitigation measures AQ-1 and AQ-2 are required, which includes all feasible BCECP and BMPs to minimize construction-related dust and emissions. Therefore, construction criteria air pollutant impacts of the proposed project would be less than significant with mitigation.

SMAQMD defines sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants or may experience adverse effects from unhealthful concentrations of air pollutants. Hospitals, clinics, schools, convalescent facilities, and residential areas are examples of sensitive receptors. The nearest sensitive receptors in the vicinity of the project site are multi-family residential land uses located approximately 30 feet south of the project site. The amount of dust emitted during project construction would be minimized by

through compliance with SMAQMD's Rule 403 and implementation of Mitigation Measures AQ-1 and AQ-2, and would occur short-term, and with mitigation emissions are expected to be well below allowable thresholds (see Table 1). For these reasons, with mitigation impacts would less than significant.

Operation

Following the completion of construction activities, the proposed project would generate pollutant emissions from area sources (include the use of consumer products, natural gas hearths, and landscape maintenance equipment), on-site energy use, and vehicles travelling to and from the project site. Table 2, Estimated Unmitigated Operational Emissions, presents the estimated operational emissions (Year 2021) from the proposed project.

Table 2
Estimated Unmitigated Operational Emissions

Source	ROG	NO_x	PM_{10}	$PM_{2.5}$
	pounds per day			
Area Sources	3.23	0.06	0.03	0.03
Energy Sources	0.05	0.44	0.04	0.04
Mobile Sources	1.47	5.18	3.71	1.02
Pollutant Threshold	*65*	*65*	*80**	*82**
Threshold Exceeded?	**No**	**No**	**No**	**No**

Notes: Detailed results are included in Appendix A.
* SMAQMD PM Thresholds if all feasible BACT/BMPs are applied
ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter, $PM_{2.5}$ = fine particulate matter

As shown in Table 2, emissions of ROG, NO_x, $PM_{10,}$ and $PM_{2.5}$ from project operation would be minimal and would not exceed the SMAQMD thresholds of significance. The SMAQMD CEQA guidance states that operational emissions that generate above zero pounds per day of PM_{10} and $PM_{2.5}$ would result in a significant impact, unless all feasible Best Available Control Technologies (BACT) and BMPs are implemented (SMAQMD 2017). The proposed project would be required to comply with BMP measures in its final design to reduce operational PM_{10} and $PM_{2.5}$ emissions including compliance with the California Building Energy Efficiency Standards and Green Building Code (Title 24, Parts 6 and 11) and would also develop pedestrian infrastructure through the site. Furthermore, project design review under Policy ER 6.1.2 of the City's General Plan would ensure that the proposed project includes feasible measures that reduce air pollutant emissions through project design. Therefore, combined with mitigation the impact would be less than significant.

In addition, the project would also not result in CO concentrations that exceed the current 1-hour and 8-hour standards and would not develop housing that could place residents near

mobile or stationary sources of toxic air contaminants (TACs). Both of these impacts are less than significant.

h) Please see Section 3.5, Greenhouse Gases that addresses potential conflicts with the City's adopted Climate Action Plan.

Mitigation Measures

Mitigation Measure AQ-1 (Construction Emissions)

The following Basic Construction Emission Control Practices (BCECP) shall be implemented during project construction:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways shall be covered.
- Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

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

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

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

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

Mitigation Measure AQ-2 (Construction Traffic)

Route and schedule construction traffic to avoid peak travel times as much as possible to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

Findings

All significant environmental effects of the project relating to Air Quality can be mitigated to a less-than-significant level with Mitigation Measures AQ-1 and AQ-2.

3.3 Biological Resources

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
III. BIOLOGICAL RESOURCES – Would the project…			
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?	☐	☒	☐
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?	☐	☒	☐
c) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?	☒	☐	☐

Environmental Setting

A reconnaissance level biological field survey was conducted for the project site in October 2018, with the results provided in the Biological Constraints Report included in Appendix B. The focus of the survey was to characterize existing conditions and biological resources on the site and to summarize potential biological constraints associated with future development. In addition, an Arborist Report (Appendix C) was prepared to characterize trees on the project site and potential impacts that could occur. The following information is based on the Biological Constraints Report and Arborist Report prepared for the proposed project.

Vegetation Communities and Land Cover Types

Two non-natural land cover types occur on the project site: developed land, which covers 1.5 acres, and ornamental plantings, which covers 6.32 acres. No natural vegetation communities were observed during the site visit. Developed land refers to areas that have been constructed on or disturbed so severely that native vegetation is no longer supported. This land cover type on the project site is the direct result of extensive site disturbance, including prior grading and paving activities, and construction of shade structures and buildings that have since been removed. Currently, the site supports areas of pavement and associated ornamental landscaping. This land cover type does not function as suitable habitat for special-status plant or wildlife species. "Ornamental Plantings" refers to areas where non-native ornamental species and landscaping have been installed. Within the project site, ornamental plantings consist largely of Kentucky blue grass (*Poa pratensis*) and non-native tree species including, but not limited to Zelkova *(Zelkova serrata),* Liquidambar *(Liquidambar styraciflua),* Honey Locust *(Gleditsia triacanthos),* and London plane trees (*Platanus ×hispanica*). This land cover type occurs throughout the majority of the project site.

A total of 13 species of plants, 2 native and 11 non-native, and 31 different tree species were recorded on the site. The relatively low diversity of native plants and the dominance of non-native, weedy species reflects the site's developed and disturbed environment and its proximity to adjacent developed areas.

Special-Status Plant and Wildlife Species

Results of the CNDDB, IPaC and CNPS database searches indicate that 17 special-status plant species and 26 special-status wildlife species are known to occur within the project quadrangle or eight surrounding quadrangles. No special-status plant or wildlife species have been previously documented within the project site or in the immediate project vicinity. Of the 17 special-status plant species and 26 special-status wildlife species known from the region, all plant species and 24 wildlife species were removed from consideration due to lack of suitable habitat or soils on the site, or because the project site is outside of the known elevation or geographic range for the species. Although trees present onsite may provide potential nesting habitat for the remaining two sensitive wildlife species, Swainson's hawk (*Buteo swainsoni*) and Coopers hawk (*Accipiter cooperii*), the site is heavily disturbed, surrounded by development, and lacks any foraging habitat such as extensive, unobstructed grassland and agricultural fields. Furthermore, no nests were observed in any of the trees during the 2018 site visit and no sensitive species were observed. Given the highly disturbed nature of the site along with the extensive level of development surrounding the site, the potential for any sensitive bird species to occur is relatively low. Furthermore, due to the highly disturbed nature of the habitat present on the project site, special-status plant species are not expected to occur.

Common Wildlife Species

Few species of wildlife were recorded within and adjacent to the project site during the site visit. Given the highly disturbed nature of the site and the extensive amount of development surrounding the site and in the site vicinity, wildlife use is expected to be limited to common species adapted to urban settings and human disturbance such as raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and wild turkey (*Meleagris gallopavo*), given the proximity to the American river.

Trees

The City of Sacramento Tree Preservation Ordinance (Ordinance (Ord. 2016-0026; City Code Chapter 12.56), protects City trees and certain private trees within City limits. The ordinance specifies that a tree permit is required to perform regulated work, including removal of protected trees. A tree permit for the removal of private protected trees must include a tree replacement plan. The ordinance requires that the tree replacement plan must provide for one inch of replacement tree for every inch of private protected tree or City tree that is removed. Replacement trees may be planted on-site or off-site and must be monitored and maintained for the specified time period required for tree establishment. Alternatively, an in-lieu fee may be paid for the loss of protected trees, which would be placed in the City's tree planting and replacement fund. Furthermore, replacement credit is offered for preserving existing trees that are smaller than a private protected tree.

Sierra Nevada Arborists conducted a tree inventory summary and prepared an arborist report for the project site (Appendix B). The report recommended 55 trees for removal from the project site due to defects, compromised health, and/or structural instability. One plum tree (Prunus sp.) that is considered a protected private tree due to its size (DBH above 24 inches) is recommended for removal. Because the proposed project would remove protected trees and encroach upon the driplines of protected trees during project construction, a tree permit would be required in compliance with the City's Tree Preservation Ordinance (Ordinance (Ord. 2016-0026; City Code Chapter 12.56).

Potentially Jurisdictional Wetlands

Waters of the United States, including wetlands, are special habitats regulated by the U.S. Army Corps of Engineers (ACOE), and other state and federal agencies, in accordance with the federal Clean Water Act. Some isolated features that may not fall under the jurisdiction of the ACOE would potentially fall under the jurisdiction of the Regional Water Quality Control Board as waters of the state. Determining the extent of waters of the United States and waters of the state on a given site requires that a wetland delineation be prepared according to standards issued by the ACOE and submitted to the ACOE for review and verification.

No formal wetland delineation has been prepared for the project site; however, waters of the United States are not anticipated to be present on the site and no areas of potential wetlands were identified during the site survey. No creeks or streams are present on the site and the only potential sources of hydrology on the site are precipitation and landscape irrigation. Topographic depressions present on site where water could potentially pool contain drains preventing the accumulation of standing water.

Standards of Significance

The significance criteria used to evaluate project impacts to biological resources is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the project would:

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.
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.
c. Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

The City's General Plan MEIR evaluates the effects on biological resources associated with development within the City under the 2035 General Plan in Section 4.3. The MEIR found that development under the 2035 General Plan could cause potential impacts by degrading the quality of the environment or reducing habitat or populations below self-sustaining levels of special-status birds due to the loss of both nesting and foraging habitat. Several policies included in the 2035 General Plan would mitigate impacts to biological resources caused by development under the 2035 General Plan.

Cumulative impacts of development under the 2035 General Plan on special-status plant species, loss of habitat for special-status animal species, and loss of riparian habitat, wetlands and sensitive natural communities were found to be less than significant in the MEIR. Impacts contributing to the regional loss of special-status species or their habitat were found to be a significant and unavoidable impact (Impact 4.3-11). Relevant policies from the 2035 General Plan are included below.

Relevant 2035 General Plan Policies

The following General Plan policies related to biological resources are applicable to the proposed project:

Land Use and Design Element

Goal LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

Policy LU 1.1.1: Regional Leadership. The City shall be the regional leader in sustainable development and encourage compact, higher-density development that conserves land resources, protects habitat, supports transit, reduces vehicle trips, improves air quality, conserves energy and water, and diversifies Sacramento's housing stock.

Environmental Resources Element

Goal ER 2.1: Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

Policy ER 2.1.1: Resource Preservation. The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.

Policy ER 2.1.4: Retain Habitat Areas. The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.

Policy ER 2.1.10: Habitat Assessments and Impact Compensation. The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or (2) suitable habitat and presence of the species shall be assumed to

occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

Goal ER 3.1: Urban Forest. Manage the city's urban forest as an environmental, economic, and aesthetic resource to improve Sacramento residents' quality of life.

Policy ER 3.1.3: Trees of Significance. The City shall require the retention of City trees Heritage Trees by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or appropriate remediation.

Answers to Checklist Questions

a,b) No special-status plant or animal species were detected during the biological survey. The ornamental and developed land cover types on site are not considered suitable habitat for special-status plant species known to occur in the region. Because of the high degree of disturbance on the site and the fact that the site is entirely surrounded by development, special-status plant species are not expected to occur at the project site. A search of the biological databases and evaluation of suitable habitat and soils on the project site revealed that two special-status wildlife species, Swainson's hawk (*Buteo swainsoni*) and Coopers hawk (*Accipiter cooperii*), have the potential to occur in the project area. However, given the highly disturbed nature of the site along with the extensive level of development surrounding the site, the potential for these species to use the trees onsite for nesting and the site for foraging is relatively low.

All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 and Section 3503.5 of the California Fish and Game Code, which specifically protects raptors. The landscaped areas and potential nest trees within the project site provide nesting habitat for native birds protected by the MBTA and the California Fish and Game Code. Destruction or other adverse impacts to active nests with eggs or chicks during construction could be considered a violation of these regulations and be considered potentially significant impacts under CEQA. Due to the developed nature of the surrounding area, the project site does not function as a wildlife corridor. Implementation of Mitigation Measure BIO-1 would ensure that no impacts would occur to nesting bird species, if present during construction. Therefore, impacts to special-status wildlife and plant species would be less than significant with mitigation.

The residential nature of the project does not include any uses or activities that could create a potential health hazard to plant or wildlife resources on the project site. As discussed above, the site does not contain any special-status, or protected, plant or animal species. Therefore, the impact is less than significant.

c) No formal wetland delineation has been prepared for the project site. However, given the lack of wetland indicators observed during the site survey, it is highly unlikely waters of the United States or waters of the state would be present on the site. Thus, a formal wetland delineation and verification by the ACOE is not anticipated to be required. In addition, no riparian habitat or sensitive natural community is located on the project site. Therefore, no impact would occur to federally protected wetlands, riparian habitat, or sensitive natural community due to the proposed project.

Mitigation Measures

Mitigation Measure BIO-1 (construction)

Project construction could result in impacts to nesting birds, including the loss of active nests with eggs or fledglings if vegetation clearing and ground-disturbing activities occur during the nesting season (generally February 1 through August 30, depending on the species). All native migratory bird species are protected by the federal Migratory Bird Treaty Act; active nests of all birds are protected under California Fish and Game Code 3503, and individual raptors (and their active nests) are protected under 3503.5. A preconstruction nesting bird survey shall be conducted by a qualified biologist no sooner than 10 days prior to tree removal, construction and any ground-disturbance activities, if such activities occur during the nesting season, to determine if any native birds are nesting on or immediately adjacent to the site (including a 250-foot buffer for raptors). If any active nests are observed during the survey, a suitable avoidance buffer shall be determined and flagged by the qualified biologist based on species, location, and planned construction activity. These nests would be avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist.

Findings

All significant environmental effects of the project relating to Biological Resources can be mitigated to a less-than-significant level with Mitigation Measure BIO-1.

3.4 Cultural Resources

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
IV. CULTURAL RESOURCES – Would the project…			
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐
b) Directly or indirectly destroy a unique paleontological resource?	☐	☒	☐
c) Adversely affect tribal cultural resources?	☐	☒	☐

Environmental Setting

A site-specific cultural resources evaluation was conducted for the project and is included as Appendix D. The Cultural Resources Inventory Report (CRIR) prepared for the project evaluates the potential for the project site to contain significant historical and archeological resources. The CRIR evaluation included a North Central Information Center (NCIC) California Historic Resources Information System (CHRIS) records search, a request for a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, an intensive pedestrian survey of the project site, and a review of aerial photographs.

Ethnography

Cultural resources within the City and in the surrounding area include prehistoric and historic resources. Prehistoric resources are those sites and artifacts associated with the indigenous, non-Euroamerican population, generally dating prior to contact with people of European descent. Historic resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region.

The 2035 General Plan Background Report designates areas within the City that have the potential to have high or moderate sensitivity for archeological resources. The project site is not located within an area of high or moderate archeological sensitivity according to this report (City of Sacramento 2014).

There are no existing buildings within the project site. Structures within the project site are limited to sixteen carports, which are not considered a historic resource. No archaeological resources were identified within the project site or in the immediate vicinity as part of the CRIR.

Standards of Significance

The significance criteria used to evaluate the project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

b. Directly or indirectly destroy a unique paleontological resource.

c. Adversely affect tribal cultural resources.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.4 of the 2035 General Plan MEIR addresses the effects of development on cultural resources within the City. The MEIR concluded that impacts on historic resources and archeological resources due to development under the 2035 General Plan would be significant and unavoidable (Impacts 4.4-1 and 4.4-2). Adherence to applicable policies and regulations would reduce potential impacts related to paleontological resources to a less-than-significant level (impact 4.5-5). Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to cultural resources are applicable to the proposed project:

Historic and Cultural Resources

Goal HCR 2.1: Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

Policy HCR 2.1.2: Applicable Laws and Regulations. The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.

Policy HCR 2.1.3: Consultation. The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines," etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.

Policy HCR 2.1.6: Planning. The City shall take historical and cultural resources into consideration in the development of planning studies and documents.

Policy HCR 2.1.16: Archeological & Cultural Resources. The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

Answers to Checklist Questions

a,b) The Cultural Resources Inventory Report prepared for the project determined that no historical or archeological resources were found on the project site or in the immediate vicinity (see Appendix D). However, it is always possible that archaeological and paleontological deposits are present at subsurface levels. Implementation of mitigation measure CUL-1 would reduce potential impacts to cultural and paleontological resources discovered during project construction activities to less than significant.

c) To address the potential for tribal cultural resources (TCRs) to be present on the site, the City sent letters to tribes that have requested notification required by AB52. In addition, Senate Bill (SB) 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. As the proposed project includes a general plan amendment, the City of Sacramento has initiated consultation under SB 18 (Government Code section 65352.3).

In response to the AB52 outreach, the City received a response from the United Auburn Indian Community (UAIC). The UAIC requested consultation with the City and asked for a copy of the Cultural Resources Letter Report prepared for the project. The City provided this information as requested. Should a tribal cultural resource be identified that may be impacted, appropriate steps for management will be taken as determined by the City. Because there is the potential for TCRs to be present compliance with Mitigation Measure CUL-3 would ensure impacts are reduced to less than significant. Please see Section 3.14 for more information on tribal cultural resources.

Mitigation Measures

Mitigation Measure CUL-1

If cultural resources, paleontological or tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. This shall be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.
- Recommendations for avoidance of cultural resources, paleontological and tribal cultural resources shall be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes shall be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), shall install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a cultural resource or a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes shall be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing shall

be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.

- The construction contractor(s) shall maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area shall be demarcated as an "Environmentally Sensitive Area".

If a cultural resource or a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources or tribal cultural resources:

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

If a cultural resource or a tribal cultural resource is determined to be eligible for listing in the CRHR, the City shall avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City's invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations shall be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed shall be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative shall also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation shall be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - Protect the cultural character and integrity of the resource.
    - Protect the traditional use of the resource.
    - Protect the confidentiality of the resource.
    - Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
    - Protect the resource.

Mitigation Measure CUL-2

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC) Section 7050.5, if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

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

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.98.

Mitigation Measure CUL-3

The City shall require the applicant/contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP shall be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, as well as culturally affiliated Native American tribes. The City may invite Native American representatives from interested culturally affiliated Native American tribes to participate. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP shall include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP shall also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and shall outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP shall emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and shall discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

Findings

All significant environmental effects of the project relating to Cultural Resources can be mitigated to a less-than-significant level with Mitigation Measures CUL-1, CUL-2, and CUL-3.

3.5 Greenhouse Gas Emissions

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
V. GREENHOUSE GAS EMISSIONS – Would the project…			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of greenhouse gases?	☒	☐	☐

Environmental Setting

The City of Sacramento adopted a community wide Climate Action Plan (CAP) on February 14, 2012 to identify actions the City can take to reduce greenhouse gas (GHG) emissions through GHG reduction targets, strategies, and specific actions. The CAP was incorporated into the City's 2035 General Plan on March 3, 2015. The City has retained a goal of reducing community-wide emissions to 15% below 2005 levels by 2020, 38% below 2005 levels by 2030, and 83% below 2005 levels by 2050. In order to ensure that future development is in compliance with the City's GHG emissions reduction goals, the City has designed self-mitigating policies for all development and operations in the city to adhere to. Proposed new development in the City can demonstrate their compliance through the use of the City's Climate Action Plan Consistency Checklist. The CAP Consistency Review Checklist contains seven criteria that the proposed project must be consistent with in order show reductions in greenhouse gas emissions (City of Sacramento 2018a).

Standards of Significance

The significance criteria used to evaluate the project impacts to greenhouse gases/climate change is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to greenhouse gas emissions would occur if the project would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.14 of the City's 2035 General Plan MEIR addresses the potential for new development to generate an increase in GHG emissions under the 2035 General Plan. The MEIR concluded that GHG emissions associated with development under the 2035 General Plan would be less than significant. Several policies incorporated in the 2035 General Plan address climate change and GHG emissions, specifically Policies U 6.1.1 through 6.1.17, which describe efforts the City should take to reduce overall energy use, promote renewable energy systems and facilities, and coordinate with regional organizations, businesses, utility providers, property owners and builders to increase energy efficiency within the City. These policies include those relating to use of higher-efficiency vehicles, promoting pedestrian, bicycle, and public transit transportation, and sustainable development. Table 4.14-3 of the MEIR lists all General Plan policies that address climate change. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to greenhouse gas emissions are applicable to the proposed project:

Land Use

Goal LU 2.6. City Sustained and Renewed. Promote sustainable development and land use practices in both new development, reuse, and reinvestment that provide for the transformation of Sacramento into a sustainable urban city while preserving choices (e.g., where to live, work, and recreate) for future generations

Policy LU 2.6.4: Sustainable Building Practices. The City shall promote and, where appropriate, require sustainable building practices that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water and other resources, facilitate natural ventilation, use daylight effectively, and are healthy, safe, comfortable, and durable.

Goal LU 4.2. Suburban Neighborhoods. Encourage the creation of more complete and well-designed suburban neighborhoods that provide a variety of housing choices and mix of uses that encourage walking and biking.

Policy LU 4.2.1: Enhanced Walking and Biking. The City shall pursue opportunities to promote walking and biking in existing suburban neighborhoods through improvements such as:

- introducing new pedestrian and bicycle connections;
- adding bike lanes and designating and signing bike routes;

- narrowing streets where they are overly wide;
- introducing planting strips and street trees between the curb and sidewalk; or
- introducing traffic circles, speed humps, traffic tables, and other appropriate traffic-calming improvements.

Environmental Resources

Goal ER 6.1. Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that contribute to climate change.

Policy ER 6.1.2: New Development. The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and $PM_{2.5}$) through project design.

Policy ER 6.1.8: Greenhouse Gas Reduction in New Development. The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.

Policy ER 6.1.11: Coordination with SMAQMD. The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce GHG emissions and air pollution if not already provided for through project design.

Utilities

Policy U 6.1.7: Solar Access: The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.

Policy U 6.1.15: Energy Efficiency Appliances. The City shall encourage builders to supply Energy STAR appliances and HVAC systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

Answers to Checklist Questions

a,b) The project's short-term construction related and long-term operational GHG emissions were estimated using CalEEMod. All project modeling results are included in Appendix A.

Construction

Construction of the proposed project would result in short-term GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions for project construction. Table 3, Project Estimated Annual Construction GHG Emissions, presents estimated construction emissions.

SMAQMD has adopted the quantitative threshold for construction GHG emissions of 1,100 MT CO_2e for land use development projects (SMAQMD 2015). A project that exceeds the thresholds may have a cumulatively considerable contribution of GHG emissions.

Table 3
Project Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2019	190.97	0.05	0.00	192.14
2020	260.31	0.05	0.00	261.57
			Pollutant Threshold	*1,100*
			Threshold Exceeded?	**No**

MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3, estimated annual construction-related GHG emissions would be approximately 192 MT CO_2e in 2019 and 262 MT CO_2e in 2020. Therefore, construction activities would not exceed the applied threshold of 1,100 MT CO_2e per year and impacts would be less than significant.

Operation

Long-term operational emissions would occur over the life of the project. The proposed project would be considered to have a significant effect relating to operational greenhouse gas emissions if it fails to comply with the City's GHG policies. However, the proposed project has committed to reducing greenhouse gas emissions. The proposed project would comply with the City's 2035 General Plan Land Use and Urban Form Designations and Development Standards, and would be consistent with the allowable density standards specified in the General Plan. In addition, the project is consistent with General Plan goals supporting infill development (LU 1.1, 1.1.4, 1.1.5 and 1.1.10), sustainable development patterns (LU 2.6.1), and preservation of neighborhoods (LU 4.1.1, 4.1.3, 4.1.10) that all support the City's CAP.

The proposed project is designed consistent with the City's CAP. Therefore, the proposed project would not generate GHG emissions that exceed the acceptable threshold and would not conflict with a plan or policy adopted to reduce GHGs and the impact is less than significant.

Mitigation Measures

No mitigation would be required.

Findings

The project would have no additional project-specific environmental effects relating to Greenhouse Gas emissions.

3.6 Geology and Soils

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
VI. GEOLOGY, SOILS, AND SEISMICITY – Would the project…			
a) 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?	☒	☐	☐

Environmental Setting

The proposed project is located in the Sacramento Valley within the Great Valley geomorphic province, a relatively flat alluvial plain that is composed of deep layers of sedimentary deposits and has undergone periods of subsidence and uplift over millions of years. The Natural Resources Conservation Service (USDA 2017) maps one soil type on the project site: San Joaquin-Urban land complex, 0-2% slopes. The San Joaquin series consists of moderately deep to a duripan, well and moderately well-drained soils that formed in alluvium derived from mixed but dominantly granitic rock sources (USDA 1999).

There are no known active faults or Alquist-Priolo Earthquake Fault Zoning Act special studies zones within the City and the larger Sacramento region (City of Sacramento 2014). The nearest earthquake threats are from faults that occur within Northern California, including the San Andreas, Calaveras, and Hayward faults. Sacramento has a low seismic-ground shaking hazard, and accordingly threats from earthquake hazards are low.

Standards of Significance

The significance criteria used to evaluate the project impacts to geology and soils is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to geology and soils would occur if the project would:

a. 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.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.5 of the City's 2035 General Plan MEIR addresses the effects of geology, soils, and seismic hazards on development within the City. The MEIR concluded that all impacts related to seismic hazards, underlying soil characteristics, slope stability, and erosion would be reduced to a less-than-significant level with implementation of policies included in the 2035 General Plan. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to geology and soils are applicable to the proposed project:

Environmental Constraints Element

Goal EC 1.1: Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

Policy EC 1.1.1: Review Standards. The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.

Policy EC 1.1.2: Geotechnical Investigations. The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

Environmental Resources Element

Goal ER 1.1: Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines.

Policy ER 1.1.7: Construction Site Impacts. The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and storm water management and discharge control ordinance.

Answers to Checklist Questions

a) The proposed project is not located in an area prone to substantial seismic activity, and therefore is not considered likely to result in exposure to substantial seismic or geologic hazards. The proposed project would include 68 single-family lots, along with internal roadways, sidewalks, and landscaping. The site is relatively flat and site disturbance would not involve significant changes in topography. Therefore, slope stability, landslide, and erosion hazards would not be significant. However, erosion could occur as a result of site grading. The Sacramento City Code (Ordinance 15.88.250) includes requirements for grading and erosion control. Compliance with these requirements would ensure that soil erosion impacts would be less than significant. Furthermore, construction within the State is required to comply with the California Building Code (CBC), which sets forth design and engineering requirements to reduce impacts from geologic hazards.

The 2035 General Plan identifies that areas susceptible to liquefaction hazards include the Central City, Pocket, and North and South Natomas neighborhoods. However, soil types can vary considerably depending on depth to ground water. Soils on the project site can affect the stability and durability of buildings and structures located on the project site. Therefore, as required by General Plan Policy EC 1.1.2, a geotechnical investigation would be required to evaluate soil susceptibility to liquefaction, expansion, or collapse. Compliance with the recommendations of the geotechnical report and requirements of the CBC would ensure that impacts related to geology and soils would be less than significant.

Mitigation Measures

No mitigation would be required.

Findings

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

3.7 Hazards and Hazardous Materials

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project…			
a) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?	☐	☒	☐
b) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?	☒	☐	☐
c) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?	☒	☐	☐

Environmental Setting

The project site has historically been developed with multi-family residential uses. Currently, the project site is undeveloped, with the exception of carports, sidewalks, and small paved parking areas. The project site is not included on any list of hazardous materials compiled by the State of California (DTSC 2017). The California Department of Forestry and Fire Protection (CAL FIRE) designates the project site as not being within a very high fire hazard severity zone (CAL FIRE 2008).

Standards of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project would:

a. Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities.

b. Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials.

c. 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, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.6 of the City's 2035 General Plan MEIR addresses the effects of hazards and hazardous materials on development within the City. The MEIR determined that although development under the 2035 General Plan may result in the exposure of people to hazards and hazardous materials during construction activities and project operation, impacts would be less than significant. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to hazards and hazardous materials are applicable to the proposed project:

Public Health and Safety Element

Goal PHS 2.2: Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

PHS 2.2.9: Development Review for Emergency Response. The City shall continue to include appropriate emergency responders (e.g., Fire Department staff) in the review of development proposals to ensure emergency response times can be adequately maintained.

Goal PHS 3.1: Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

Policy PHS 3.1.1: Investigate Sites for Contamination. The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.

Answers to Checklist Questions

a,b) Project construction would involve the use of petroleum-based fuels for construction equipment, which would be transported to the site and would be present on the site for short periods of time in a designated staging area. The proposed project would be subject to an erosion control plan and implement best management practices (BMPs) to prevent foreseeable upset and accident conditions to the extent possible. Demolishing activities would include removing existing carports on the project site, which do not contain hazardous materials.

Therefore, construction workers or the public would not be exposed to hazardous materials during demolishing activities. To minimize impacts from the handling and use of potentially hazardous materials, the contractor would follow all necessary precautions according to the applicable California Health and Safety Codes (Chapter 6. 5, Division 20, California Administration Code, Title 22, relating to Handling, Storage, and Treatment of Hazardous Materials) and the City of Sacramento Building Code and the Uniform Building Code. If evidence of contaminated soils is discovered during grading, implementation of Mitigation Measure HAZ-1 would ensure that contaminants would be cleaned up immediately in compliance with applicable regulations in the event of a spill or release. All hazardous materials would be used, stored, transported, and disposed of according to applicable federal, state and local requirements.

The proposed project consists of constructing 68 single-family lots, internal roadways, sidewalks and landscaping on the project site. Construction and maintenance of the project would use fuels, oils, lubricants, paint and paint thinners, glues, cleaners and other hazardous materials. However, the project would comply with City and State regulations regarding the handling and use of hazardous materials. Therefore, impacts associated with the exposure of people to contaminated soils during construction and operation would be less than significant with Mitigation Measure HAZ-1. The project does not require demolition of any structures that may contain asbestos materials nor would any dewatering activities be required. Therefore, these impacts would be less than significant.

Mitigation Measures

Mitigation Measure HAZ-1

If evidence of contaminated soils is discovered during grading or soil excavation, work in the vicinity of the contaminated area shall cease until the suspected contaminated soils are properly characterized, identified and remediated. Hazardous or contaminated materials may be removed and disposed of from the project site only in accordance with applicable federal, state and local requirements.

Findings

All significant environmental effects of the project relating to Hazards and Hazardous Materials can be mitigated to a less-than-significant level with Mitigation Measure HAZ-1.

3.8 Hydrology and Water Quality

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
VIII. HYDROLOGY AND WATER QUALITY – Would the project…			
a) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?	☒	☐	☐
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?	☒	☐	☐

Environmental Setting

The project site is located within the Lower Sacramento Watershed, Hydrologic Unit Code 18020109 (USGS 2016). The hydrology of the site has been influenced by development including residential, recreational and public facilities in the surrounding area. Sources of hydrology in the project area include precipitation and runoff from the surrounding areas. The existing storm drainage infrastructure in the project area consists of 18-inch storm drain lines located along the west and east sides of the project site and 21 to 24-inch storm drain lines along the northern portion of the site.

At present, the site is predominantly undeveloped with the exception of carports, sidewalks, and paved walkways and parking areas. The majority of the project site consists of nonnative grass lawns interspersed with mature trees. The project site is located approximately four miles east of the Sacramento River and approximately 1.5 miles south of the American River. There are no creeks, wetlands, or other hydrologic features located on the site. Stormwater is currently primarily absorbed on site or drains into the City's storm drain system.

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) that delineate flood hazard zones for communities. The project site is located within an area designated as Zone X (Community Panel Number 06067C0195H), which is applied to areas of 0.2 percent annual chance of flooding, areas of 1 percent annual chance of flooding with average depths of less than one foot, or with drainage areas less than one square mile, and areas protected by levees from the 1 percent annual chance of a flood. FEMA considers Zone X to be an area of minimal flood hazard. FEMA does not have building regulations for development in areas designated Zone X and would not require mandatory flood insurance for structures within this zone.

Standards of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

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.

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.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.7 of the City's 2035 General Plan MEIR addresses hydrology and water quality effects associated with future development within the City. The MEIR identified that development under the 2035 General Plan could result in impacts to water quality due to construction activities and operation, and exposure of people to flood risks. Implementation of policies included in the 2035 General Plan would reduce these impacts to less than significant. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to hydrology and water quality are applicable to the proposed project:

Environmental Resources Element

Goal ER 1.1: Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines.

Policy ER 1.1.4: New Development. The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.

Policy ER 1.1.5: Limit Stormwater Peak Flows. The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

Policy ER 1.1.6: Post-Development Runoff. The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.

Policy ER 1.1.7: Construction Site Impacts. The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

Environmental Constraints Element

Goal EC 2.1: Flood Protection. Protect life and property from flooding.

Policy EC 2.1.11: New Development. The City shall require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with California Department of Water Resources (DWR) Urban Level of Flood Protection Criteria. The City shall not approve new development or a subdivision or enter into a development agreement for any property within a flood hazard zone unless the adequacy of flood protection specific to the area has been demonstrated.

Utilities Element

Goal U 4.1: Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.

Policy U 1.1.6: Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy U 4.1.4: Watershed Drainage Plans. The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.

Answers to Checklist Questions

a) The proposed project includes 68 single-family lots, internal roadways, sidewalks and landscaping. Development of the site would convert natural vegetated groundcover to paved impervious surfaces. This could alter existing drainage patterns, site infiltration rates, and the rate of surface runoff. Sacramento City Code Section 13.08.145 addresses mitigation of

drainage impacts and requires that when new development contributes runoff into the City's storm drain system, all storm water and surface runoff drainage impacts resulting from development must be fully mitigated to ensure that it does not affect the function of the storm drain system, and that there is no increase in flooding or in water surface elevation that adversely affects individuals, streets, structures, infrastructure, or property.

Storm drainage for the project site would be provided via a new 15-inch storm drain line in combination with connections to existing storm drain lines along the west, east, and northern sides of the project site. Storm water infrastructure that would serve the project site has been sized to accommodate projected development. The City operates under a Phase I National Pollutant Discharge Elimination System (NPDES) permit, which requires developers to include water quality and watershed protection measures for all development projects (City of Sacramento 2014). The City implements a comprehensive Storm Water Quality Improvement Plan (SQIP) to ensure compliance with its NPDES permit. The SQIP contains provisions for construction storm water control and post-construction storm water control for new development and redevelopment. These include storm water quality treatment and/or BMPs that are required to be implemented in the project design phase.

Construction grading and excavation and construction of new structures would create the potential to degrade water quality from increased sedimentation and increased storm water runoff. Construction projects that involve disturbance of over one acre of land are required by law to seek coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, SWRCB Order No. 2010-0014-DWQ / NPDES No. CAS0085324, Order R5-2016-0040 as amended). To comply with this permit, construction projects disturbing over one acre must prepare a Storm Water Pollution Prevention Plan (SWPPP), which specifies BMPs to reduce the contribution of sediments, spilled and leaked liquids from construction equipment, and other construction-related pollutants to storm water runoff. The project would be required to submit all permit registration documents (including the SWPPP) to the State Water Resources Control Board, obtain a waste discharge identification number as certification of coverage, and implement the SWPPP during construction activities. The SWPPP identifies which structural and nonstructural BMPs would be implemented, such as sandbag barriers, dust controls, perimeter controls, drain inlet protection, proper construction site housekeeping practices, and construction worker training.

After construction, the project would be required to use source control, runoff reduction, and treatment control measures set forth in the Storm Water Quality Design Manual for the Sacramento Region, if required. These include storm water treatment measures, such as swales, filter strips, media filters and infiltration, and spill prevention and cleanup measures. Furthermore, the City's Land Grading and Erosion Control Ordinance and Storm Water Management and Discharge Control Code include requirements for reducing storm water pollutants. The proposed project

would comply with the City's SQIP and Storm Water Quality Design Manual, and all other applicable regulations; therefore, it would result in a less-than-significant impact with regard to increase in sediments due to storm water runoff and water quality.

b) The proposed project would not be located within a 100-year flood hazard area, as designated by FEMA (FEMA 2015). The project site is within an area designated Zone X, which allows for building construction. The proposed project would not place housing or structures within a 100-year flood hazard areas and would not expose people or structures to risks associated with flooding. Therefore, impacts due to flooding would be less than significant.

Mitigation Measures

No mitigation would be required.

Findings

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

3.9 Noise

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
IX. NOISE – Would the project…			
a) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?	☒	☐	☐
b) Result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project?	☒	☐	☐
c) Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?	☒	☐	☐
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?	☒	☐	☐
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?	☒	☐	☐

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
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?	☒	☐	☐

Environmental Setting

The project site is located in a developed area of the City with multi-family residences to the west, single-family residences to the east, and a multi-story senior housing development to the southeast. A 44-unit residential development is under construction north of the project site across Fairgrounds Drive. Undeveloped land and a private recreation area with tennis courts and a pool is located directly to the south of the project site. The project site consists of undeveloped land with a grass lawn, pathways, carports, and paved parking areas. There are no historic buildings on the site. Sensitive receptors in the project area include residential uses surrounding the project site.

The 2035 General Plan specifies that single-family residential areas have an acceptable noise level of 60 dBA and multi-family residential areas have an acceptable noise level of 65 dBA (City of Sacramento 2015). Because adjacent residences include single-family housing, the noise level of 60 dBA would apply. Furthermore, the City's noise ordinance specifies that exterior noise limits within residential areas shall not exceed 55 dBA within the hours between 7 a.m. and 10 p.m. and 50 dBA between 10:00 p.m. and 7:00 a.m. (City Code Section 8.68.060(A)). The project site is not within an Airport Influence Area for the Sacramento Metropolitan Airport or Executive Airport.

It is generally accepted that the average healthy ear can barely perceive a noise level change of 3 dB (Caltrans 2013). A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as twice or half as loud. A doubling of sound energy results in a 3 dBA increase in sound, which means that a doubling of sound energy (e.g., doubling the average daily numbers of traffic on a road) would result in a barely perceptible change in sound level.

Standards of Significance

The significance criteria used to evaluate the project impacts related to noise is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

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.

b. Result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project.

c. Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.

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.

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.

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.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.8 of the MEIR addresses the noise effects of development within the City under the 2035 General Plan. The MEIR concluded that that development under the 2035 General Plan would contribute to the introduction of noise from vehicular traffic, aircraft, railways, light rail and stationary sources. Policies included in the General Plan set exterior and interior noise standards for noise-sensitive uses. Although these policies would reduce impacts due to exterior and interior noise generation, impacts regarding exterior and interior noise levels and construction vibration would remain significant and unavoidable. Implementation of policies included in the 2035 General plan would reduce impacts from construction noise and vibration from transportation facilities to less than significant. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to noise are applicable to the proposed project:

Environmental Constraints

Goal EC 3.1: Noise Reduction. Minimize noise impacts on land uses and human activity to ensure the health and safety of the community.

Policy EC 3.1.1: Exterior Noise Standards. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC-1, to the extent feasible.

Table EC-1
Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure That Is Regarded as "Normally Acceptable"[a] (L_{dn}[b] or CNEL[c])
Residential—Low Density[d] Single Family, Duplex, Mobile Homes	60 dBA[e,f]
Residential—Multi-family[g]	65 dBA
Urban Residential Infill[h] and Mixed-Use Projects[i,j]	70 dBA
Transient Lodging—Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings—Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Notes:
a. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
b. Ldn or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
d. Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.
e. dBA or A-weighted decibel scale is a measurement of noise levels.
f. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
g. Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments).These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.
h. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).
i. All mixed-use projects located anywhere in the City of Sacramento
j. See notes d and g above for definition of primary open space areas for single-family and multi-family developments.
Source: City of Sacramento 2014.

Policy EC 3.1.2: Exterior Incremental Noise Standards. The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC-2, to the extent feasible.

Table EC-2
Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and buildings where people normally sleep[a]		Institutional land uses with primarily daytime and evening uses[b]	
Existing L_{dn}	*Allowable Noise Increment*	*Existing Peak Hour L_{eq}*	*Allowable Noise Increment*
45	8	45	12
50	5	50	9
55	3	55	6

Table EC-2
Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and buildings where people normally sleep[a]		Institutional land uses with primarily daytime and evening uses[b]	
Existing L_{dn}	*Allowable Noise Increment*	*Existing Peak Hour L_{eq}*	*Allowable Noise Increment*
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

a. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
b. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Source: City of Sacramento 2014.

Policy EC 3.1.3: Interior Noise Standards. The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA Ldn (with windows closed) for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA Leq (peak hour with windows closed) for office buildings and similar uses

Policy EC 3.1.10: Construction Noise. The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.

Policy EC 3.1.11: Alternatives to Sound Walls. The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

City of Sacramento City Code

Chapter 8.68 of the City of Sacramento City Code contains applicable noise regulations within City Limits, as listed below:

Section 8.68.060 – Exterior Noise Standards:

a. The noise standards that apply to all agricultural and residential properties are:
    1. From seven a.m. to ten p.m. the exterior noise standard shall be fifty-five (55) dBA.
    2. From ten p.m. to seven a.m. the exterior noise standard shall be fifty (50) dBA.

b. It is unlawful for any person at any location to create any noise which causes the noise levels when measured on agricultural or residential property to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Cumulative Duration of the Intrusive Sound	Allowance Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+5
Cumulative period of 5 minutes per hour	+10
Cumulative period of 1 minute per hour	+15
Level not to be exceeded for any time per hour	+20

Source: Sacramento City Code, 2012.

c. Each of the noise limits specified in subsection B of this section shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

d. If the ambient noise level exceeds that permitted by any of the first four noise categories specified in subsection B of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

8.68.080 Exemptions

The following activities shall be exempted from the provisions of this chapter:

a. School bands, school athletic and school entertainment events. School entertainment events shall not include events sponsored by student organizations;

b. Activities conducted on parks and public playgrounds, provided such parks and public playgrounds are owned and operated by a public entity;

c. Any mechanical device, apparatus or equipment related to or connected with emergency activities or emergency work;

d. Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not

to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work;

e. Noise sources associated with agricultural operations provided such operations take place between the hours of six a.m. and eight p.m.; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order;

f. Any mechanical device, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during period of adverse weather conditions or when the use of mobile noise sources is necessary for pest control; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order;

g. Noise sources associated with maintenance of street trees and residential area property provided said activities take place between the hours of seven a.m. and six p.m.;

h. Tree and park maintenance activities conducted by the city department of parks and community services; provided, however, that use of portable gasoline-powered blowers within two hundred (200) feet of residential property shall comply with the requirements of Section 8.68.150 of this chapter.

Answers to Checklist Questions

a-e) ***Construction***

Project construction would create noise from the use of construction equipment and vehicles. Temporary construction activities would use conventional construction techniques and equipment that would not generate substantial levels of vibration or groundborne noise. Construction activities would include removal of existing features such as carports, parking areas, sidewalks, and underground utilities, clearing of groundcover and some trees, grading, construction of buildings, internal roadways and sidewalks, and installation of utilities, landscaping, and the pedestrian flashing signal. The nearest noise-sensitive receptors are residences to the west and east of the project site across Fairgrounds Drive and immediately to the south of the project site. Noise from construction would be temporary and would comply with the City's Noise Ordinance that permits construction to occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays. By following the allowed hours of construction, noise from project construction would result in a less-than-significant impact.

Operation

The project proposes to amend the existing General Plan land use designation on the site from Traditional Neighborhood High Density to Traditional NeighborhoodMedium Density and rezone the site from R-3 to R-1A. Surrounding land uses include residential to the north, west, east, and south. Undeveloped land and a private recreation area are also located to the south of the project site. Because the project is proposing single-family residential uses, it would be consistent with surrounding existing and planned uses and the residential land use designation of the project site. The project would not be exposed to existing noise sources that would exceed a noise level of 60 dBA. Therefore, a less-than-significant impact would occur.

f) There are no historic buildings or known archeological resources near or on the project site that could be adversely impacted due to vibration-related project construction or operation. The project site is not located in close proximity to a highway or rail line. Therefore, no impact due to vibration would occur.

Mitigation Measures

No mitigation would be required.

Findings

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

3.10 Public Services

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
X. PUBLIC SERVICES – Would the project…			
a) 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?	☒	☐	☐

Environmental Setting

The City of Sacramento provides fire protection and law enforcement services to the project site. Police protection services are provided by the Sacramento City Police Department (SPD). The project site is located in the Fairgrounds service area and is served by Beat 6B, which operates from the Richards Police Facility, located at 300 Richards Boulevard, approximately 4.5 miles from the project site (SPD 2018). Fire protection services and emergency medical services are provided by the Sacramento Fire Department (SFD). The nearest SFD fire station, Station 12, is located approximately 2.5 miles from the project site at 4500 24th Street. The City has entered into a mutual aid agreement with Metro Fire and other fire protection districts within the region that provide further protection services within the City when necessary.

The Sacramento City Unified School District (SCUSD) serves the project site. The SCUSD is a K-12 district that serves 46,737 students on 77 campuses within 70 square miles (SCUSD 2018). The nearest school to the project site is Tahoe Elementary School, located approximately 0.3 of a mile to the southeast of the project site.

Standards of Significance

The significance criteria used to evaluate the project impacts to public services are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to public services would occur if the project would:

a. 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.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.10 of the MEIR addresses the public services effects of development within the City under the 2035 General Plan. The MEIR found that implementation of policies included in the 2035 General Plan would reduce impacts related to the provision of police, fire, to less than significant. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to public services are applicable to the proposed project:

Public Health and Safety Element

Goal PHS 1.1: Crime and Law Enforcement. Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety and well-being of our city, reduce current and future criminal activity, and incorporate design strategies into new development.

Policy PHS 1.1.7: Development Review. The City shall continue to include the Police Department in the review of development proposals to ensure that projects adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.

Policy PHS 1.1.8: Development Fees for Facilities and Services. The City shall require development projects to contribute fees for police facilities.

Goal PHS 2.1: Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that address the needs of Sacramento residents and businesses and maintains a safe and healthy community.

Policy PHS 2.1.11: Development Fees for Facilities and Services. The City shall require development projects to contribute fees for fire protection services and facilities.

Policy PHS 2.2.2: Development Review. The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.

Policy PHS 2.2.3: Fire Sprinkler Systems. The City shall promote installation of fire sprinkler systems in new commercial and residential development, and shall encourage the installation of sprinklers in existing structures when it is reasonable and not cost prohibitive.

Policy PHS 2.2.4: Water Supply for Fire Suppression. The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.

Answers to Checklist Questions

a) The proposed project involves the development of 68 single-family lots on an approximately 8.7-acre project site. The project would be consistent with the residential land use designation for the site and surrounding residential uses. Development proposed by the project would increase the number of residents in the area and result in increased demand for fire and police protection and schools and public facilities. According to the General Plan MEIR, the SFD has an unofficial goal to provide one station per 16,000 residents and for every 1.5 mile

service radius. The MEIR determined that, based on this unofficial service goal, buildout of the General Plan would require over 10 new fire stations and additional fire personnel (City of Sacramento 2014).

Furthermore, although the SPD does not have an official service level goal, it strives to maintain 2.0 to 2.5 sworn police officers per 1,000 residents and 1 civilian support staff per 2 sworn officers. The MEIR found that buildout of the General Plan would result in the need for an additional 330-413 sworn officers and 165-207 additional support personnel based on this service level goal. This would result in the need to remodel existing facilities and construct new facilities (City of Sacramento 2014). The proposed project would result in fewer units than anticipated by the 2035 General Plan. Furthermore, as specified by General Plan policies PHS 1.1.8 and PHS 2.1.11, the project would contribute required fees for police and fire protection services and facilities. Therefore, impacts to police and fire services would be less than significant.

Additionally, development of the proposed project would add students to the project area. The General Plan MEIR specifies a student generation rate of 0.44 K-6 students per unit, 0.12 7th-8th grade students per unit, and 0.23 9th-12th grade students per unit within the SCUSD service area (City of Sacramento 2014). Using these generation rates, the proposed 68-unit single-family lots would produce approximately 54 K-12 students that would require accommodation at SCUSD schools, as shown in Table 4, below.

Table 4
Project Student Generation

Grades	Single-Family Generation Rate	Number of Single-Family Dwelling Units	Number of Students Generated
K-6	0.44	68	30
7-8	0.12	68	8
9-12	0.23	68	16
		Total	**54**

Source: City of Sacramento 2014.

The proposed project would be required to pay developer fees used to fund school facilities and services in compliance with SB 50. Furthermore, the project would produce fewer units than anticipated in the 2035 General Plan. Therefore, impacts to school facilities and services would be less than significant.

Mitigation Measures

No mitigation would be required.

Findings

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

3.11 Recreation

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
XI. RECREATION – Would the project…			
a) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?	☒	☐	☐
b) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?	☒	☐	☐

Environmental Setting

The City of Sacramento Department of Youth, Parks, and Community Enrichment (YPCE) maintains parks and recreation facilities within the City (City of Sacramento 2018b). The YPCE maintains 226 parks and parkways comprising approximately 3,200 acres of land. The nearest park is Greenfair Park, located immediately to the south of the site. The 0.67-acre City-owned Greenfair Park is located at 2950 57th Street to the southeast of the project site adjacent to Fairgrounds Drive/57th Street. This park contains a large grass lawn and mature trees, there are no other amenities provided. Other nearby city parks include Tahoe Park, a large park with a soccer field, basketball court, picnic areas, children's play areas, softball field, swimming and wading pool, and volleyball court, located approximately 0.5 mile southeast of the site, and Sierra Vista Park, located approximately 0.4 mile northwest of the site.

Standards of Significance

The significance criteria used to evaluate the project impacts to recreation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to recreation would occur if the project would:

a. Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities.

b. 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, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 3.1 of the MEIR addresses the recreation effects of development within the City under the 2035 General Plan. The MEIR concluded that impacts from development under the 2035 General Plan would be less than significant with implementation of Quimby Act and City Code requirements that offset demand for recreational facilities, along with policies included in the 2035 General Plan. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to recreation are applicable to the proposed project:

Education, Recreation, and Culture

Goal ERC 2.2: Parks, Community and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.

Policy ERC 2.2.3: Service Level Radius. The City shall strive to provide accessible public park or recreational open space within one-half mile of all residences.

Policy ERC 2.2.4: Park Acreage Service Level. The City shall develop and maintain 1.75 acres of neighborhood and community parks and recreational facilities per 1,000 population in the Central City, and 3.5 acres of neighborhood and community parks and recreational facilities per 1,000 population in the remainder of the city.

Policy ERC 2.2.5: Meeting Service Level Goal. The City shall require new residential development to either dedicate land for new parks, pay a fair share of the costs for new parks and recreation facilities, and/or pay a fair share for rehabilitation or renovation of existing parks and recreation facilities. For new development in urban areas where land dedication is not reasonably feasible (e.g., the Central City), the City shall require new development to either construct improvements or pay fees for existing park and recreation facility enhancements to address increased use.

Answers to Checklist Questions

a,b) The proposed project includes a tentative subdivision map to subdivide the approximately 8.7-acre project site into 68 single-family lots. This would result in an increased demand for recreational facilities; however, the project would result in fewer units than anticipated by the 2035 General Plan. The City's 2035 General Plan established the park acreage service level goal for the central city as 1.75 acres of neighborhood and community parks per 1,000 population. General Plan Policy ERC 2.2.5 requires new residential development to dedicate land or pay in-lieu fees for parks or recreation facilities. There are three City parks within a half mile of the project site that would serve project residents. The project does not include any on-site recreation facilities. The project applicant is required to pay the City's applicable in-lieu fees for parks and recreation facilities to ensure adequate park facilities are available to serve the project. Introducing new residents in this area of the City 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. Impacts to recreational facilities is less than significant.

Mitigation Measures

No mitigation would be required.

Findings

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

3.12 Transportation and Traffic

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
XII. TRANSPORTATION AND TRAFFIC – Would the project…			
a) Roadway segments: degrade peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more?	☐	☒	☐
b) Intersections: degrade peak period level of service from A, B, C or D (without project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more?	☒	☐	☐

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
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?	☒	☐	☐
d) Transit: adversely affect public transit operations or fail to adequately provide for public access?	☒	☐	☐
e) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?	☒	☐	☐
f) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?	☒	☐	☐

Environmental Setting

The project site is located in the southeastern portion of the City and is surrounded by Fairgrounds Drive, which wraps around the west, north and east sides of the project site. Broadway is located approximately 0.1 mile to the south of the site. Fairgrounds Drive transitions to 53rd and 56th Streets south of Broadway. Access to the project site is provided from Fairgrounds Drive off of Broadway. Existing roadway, pedestrian system, bicycle system and transit system conditions are described below. City staff evaluated project trips and analyzed existing and projected traffic conditions with implementation of 68 single family lots (Milatzo pers. comm. 2018).

Roadway System

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

- Highway 50 is a multi-lane freeway that serves as an east-west commute corridor within the Sacramento region. The highway is located 0.5 mile north of the project site.
- Broadway is a major east-west roadway beginning at the American River west of I-5 and terminating at 65th Street. Broadway is a two-lane arterial roadway between Stockton Boulevard and 65th Street. This segment of Broadway is classified as having an Existing Level of Service (LOS) D and supports a volume of 15,500 vehicles per day. Buildout of the 2035 General Plan would result in an LOS E and a roadway volume of 17,200 along this segment (City of Sacramento 2014).

- Fairgrounds Drive is a two-lane neighborhood street that is located between 53rd and 56th Streets, north of Broadway. The street wraps around the project site on the west, east, and north.

Pedestrian, Bicycle and Transit System

Continuous sidewalks exist along one or both sides of Fairgrounds Drive and along both sides of Broadway. Class II bike lines are located on Broadway west of Fairgrounds Drive. Sacramento Regional Transit provides bus service is the project area. Route 38 provides service for both directions on Broadway between Land Park Drive and 65th Street and Folsom Boulevard. The route operates on 60-minute headways Monday through Sunday.

Standards of Significance

The significance criteria used to evaluate the project impacts to traffic and circulation is based on Appendix G of the CEQA Guidelines and established standards and policies for the City of Lincoln, the County of Placer, and Caltrans. According to Appendix G of the CEQA Guidelines and these jurisdiction standards, a significant impact related to traffic and circulation would occur if the project would:

a. 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.

b. 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 hour period average vehicle delay by five seconds or more.

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.

d. Transit: Adversely affect public transit operations; or fail to adequately provide for access to public transit.

e. Bicycle Facilities: Adversely affect bicycle travel, bicycle paths; or fail to adequately provide for access by bicycle.

f. 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, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.12 of the MEIR addresses the increase in traffic associated with development in the City under the 2035 General Plan. The MEIR analyzed impacts of development under the 2035 General Plan on vehicular, bicycle, pedestrian, public transit, and aviation modes of transportation. The analysis examined existing roadway capacity and levels of service, and transportation impacts due to development under the 2035 General Plan. Implementation of policies included in the 2035 General Plan would reduce most traffic impacts to less than significant. However, impacts to freeway segments (Impact 4.12-4) and impacts to roadway segments (Impact 4.12-3) in adjacent jurisdictions would remain significant and unavoidable. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to transportation and traffic are applicable to the proposed project:

Mobility

Policy M 1.2.2: Level of Service (LOS) Standard. The City shall implement a flexible context-sensitive Level of Service (LOS) standard, and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure Vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday AM and PM peak-hour conditions with the following exceptions described below and mapped on Figure M-1. Exhibit 4.12-2 shows the boundary of each vehicle LOS exception area.

A. Core Area (Central City Community Plan Area) – LOS F allowed

B. Priority Investment Areas – LOS F allowed

C. LOS E Roadways – LOS E is allowed for the following roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values.

- 65th Street: Elvas Avenue to 14th Avenue
- Arden Way: Royal Oaks Drive to I-80 Business
- Broadway: Stockton Boulevard to 65th Street
- College Town Drive: Hornet Drive to La Rivera Drive
- El Camino Avenue: I-80 Business to Howe Avenue
- Elder Creek Road: Stockton Boulevard to Florin Perkins Road
- Elder Creek Road: South Watt Avenue to Hedge Avenue
- Fruitridge Road: Franklin Boulevard to SR 99
- Fruitridge Road: SR 99 to 44th Street
- Howe Avenue: El Camino Avenue to Auburn Boulevard
- Sutterville Road: Riverside Boulevard to Freeport Boulevard

LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of light rail stations.

D. Other LOS F Roadways – LOS F is allowed for the following roadways (up to the identified volume/capacity ratio shown below) because expansion of the roadways would cause undesirable impacts or conflict with other community values.

- 47th Avenue: State Route 99 to Stockton Boulevard
- Arcade Boulevard: Marysville Boulevard to Roseville Road
- Carlson Drive: Moddison Avenue to H Street
- El Camino Avenue: Grove Avenue to Del Paso Boulevard
- Elvas Avenue: J Street to Folsom Boulevard
- Elvas Avenue/56th Street: 52nd Street to H Street
- Florin Road: Havenside Drive to Interstate 5
- Florin Road: Freeport Boulevard to Franklin Boulevard
- Florin Road: Interstate 5 to Freeport Boulevard
- Folsom Boulevard: 47th Street to 65th Street
- Folsom Boulevard: Howe Avenue to Jackson Highway
- Folsom Boulevard: US 50 to Howe Avenue
- Freeport Boulevard: Sutterville Road (North) to Sutterville Road (South)

- Freeport Boulevard: 21st Street to Sutterville Road (North)
- Freeport Boulevard: Broadway to 21st Street
- Garden Highway: Truxel Road to Northgate Boulevard
- H Street: Alhambra Boulevard to 45th Street
- H Street 45th: Street to Carlson Drive
- Hornet Drive: US 50 Westbound On-ramp to Folsom Boulevard
- Howe Avenue: US 50 to Fair Oaks Boulevard
- Howe Avenue: US 50 to 14th Avenue
- Raley Boulevard: Bell Avenue to Interstate 80
- South Watt Avenue: US 50 to Kiefer Boulevard
- West El Camino Avenue: Northgate Boulevard to Grove Avenue

If maintaining the above LOS standard would, in the City's judgment be infeasible and/or conflict with the achievement of other goals, LOS E or F conditions may be accepted provided that provisions are made to improve the overall system, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally, the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

Policy M 1.2.3: Transportation Evaluation. The City shall evaluate discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities, consistent with the City's Traffic Study Guidelines.

Policy M 1.2.5: Ultimate Roadway Network. If development projects would cause or exacerbate unacceptable LOS E or F conditions, the City shall not expand the physical capacity of the planned roadway network to accommodate the project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes). To maintain acceptable LOS E or F conditions, the City may require applicable vehicle trip reduction measures and physical improvements that increase transit use, bicycling, or walking and traffic operational improvements.

Policy M 1.2.6: Maximum Volume/Capacity Ratios. The City shall limit the application of the maximum daily volume/capacity ratios identified in Policy 1.2.2 to development projects requiring a General Plan Amendment.

Policy M 1.4.2: Automobile Commute Trip Reduction. The City shall encourage developers to reduce the number of single-occupant vehicle commute trips to their sites by enforcing the existing trip reduction ordinance in the City Code.

Policy M 1.4.3: Transportation Management Associations. The City shall encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations to reduce single-occupant vehicle trips.

Goal M 4.3: Neighborhood Traffic. Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City's desire to provide a grid system that creates a high level of connectivity.

Land Use and Urban Design

Goal LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

Policy LU 1.1.5: Infill Development. The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, reuse, and growth in existing urbanized areas to enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability.

Goal LU 2.1: City of Neighborhoods. Maintain a city of diverse, distinct, and well-structured neighborhoods that meet the community's needs for complete, sustainable, and high-quality living environments, from the historic downtown core to well-integrated new growth areas.

Policy LU 2.1.3: Complete and Well-structured Neighborhoods. The City shall promote the design of complete and well-structured neighborhoods whose physical layout and land use mix promote walking to services, biking, and transit use; foster community pride; enhance neighborhood identity; ensure public safety; are family-friendly and address the needs of all ages and abilities.

Goal LU 2.5: City Connected and Accessible. Promote the development of an urban pattern of well-connected, integrated, and accessible neighborhoods corridors, and centers.

Policy LU 2.5.1: Connected Neighborhoods, Corridors, and Centers. The City shall require that new development, both infill and greenfield, maximizes connections and minimizes barriers between neighborhoods, corridors, and centers within the city.

Goal LU 2.6: City Sustained and Renewed. Promote sustainable development and land use practices in both new development, reuse, and reinvestment that provide for the transformation of Sacramento into a sustainable urban city while preserving choices (e.g., where to live, work, and recreate) for future generations.

Policy LU 2.6.1: Sustainable Development Patterns. The City shall promote compact development patterns, mixed use, and higher-development intensities that use land efficiently; reduce pollution and automobile dependence and the expenditure of energy and other resources; and facilitate walking, bicycling, and transit use.

Goal LU 2.7: City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

Policy LU 2.7.6: Walkable Blocks. The City shall require new development and reuse and reinvestment projects to create walkable, pedestrian-scaled blocks, publicly accessible mid-block and alley pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use.

Goal LU 4.1: Neighborhoods. Promote the development and preservation of neighborhoods that provide a variety of housing types, densities, and designs and a mix of uses and services that address the diverse needs of Sacramento residents of all ages, socio-economic groups, and abilities.

Policy LU 4.1.3: Walkable Neighborhoods. The City shall require the design and development of neighborhoods that are pedestrian friendly and include features such as short blocks, broad and well-appointed sidewalks (e.g., lighting, landscaping, adequate width), tree-shaded streets, buildings that define and are oriented to adjacent streets and public spaces, limited driveway curb cuts, paseos and pedestrian lanes, alleys, traffic-calming features, convenient pedestrian street crossings, and access to transit.

Goal LU 4.2: Suburban Neighborhoods. Encourage the creation of more complete and well-designed suburban neighborhoods that provide a variety of housing choices and mix of uses that encourage walking and biking.

Policy LU 4.2.1: Enhanced Walking and Biking. The City shall pursue opportunities to promote walking and biking in existing suburban neighborhoods through improvements such as:

- introducing new pedestrian and bicycle connections;
- adding bike lanes and designating and signing bike routes;
- narrowing streets where they are overly wide;
- introducing planting strips and street trees between the curb and sidewalk; or

- introducing traffic circles, speed humps, traffic tables, and other appropriate traffic-calming improvements.

Answers to Checklist Questions

a-c) The project proposes to amend the General Plan land use designation of the site from Traditional Neighborhood High Density to Traditional Neighborhood Medium Density and rezone the site from R-3 to R-1A. The project would subdivide the site into 68 single-family lots, along with internal roadways, sidewalks and landscaping. The City's Public Works Department, Transportation Division, has determined the project would generate approximately 53 vehicle trips during the AM peak hour, 70 during the PM peak hour, and 729 daily trips, per the information provided in Institute of Transportation Engineers Trip Generation Manual, 10th Edition. No traffic analysis is required for projects which generate less than 100 peak hour trips since projects of such size are not expected to significantly impact the roadway facilities. Access to the project site would be provided via two roadway connections to Fairgrounds Drive along the north side of the project site and connections to Fairgrounds Drive on both the east and west sides of the project site, as shown in Figure 3. Additionally, the project applicant would contribute $25,000 as a fair share contribution towards traffic signal upgrade work at the intersection of Broadway and 56th Street which would include the installation of a video-based vehicle detection system and traffic signal controller. Furthermore, the City may require the project to include traffic calming devices along residential streets, which is at the discretion of the City. Due to the low number of new trips generated by the proposed project and inclusion of traffic calming devices, impacts would be less than significant.

d-f) Pedestrian and bicycle access may be disrupted during project construction. Construction vehicles, equipment and trucks would access the site and may need to be staged on-site during construction. Construction may also include disruptions to the transportation network near the project site, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. These activities could result in degraded roadway operating conditions that could result in inadequate emergency access. Mitigation Measure TRAF-1 would establish a construction traffic management plan that would reduce traffic impacts to pedestrian and bicycle access during construction to less than significant. Compliance with Mitigation Measure TRAF-1 would reduce impacts to less than significant.

During project operation, the proposed project would not adversely affect existing or planned transit, bicycle or pedestrian facilities. Although the project would generate less than 100 trips during peak hours, the project includes installing a rectangular rapid flashing beacon (RRFB) at the 53rd Street and Broadway intersection for pedestrians to safely cross

the street and the project would pay a fair share contribution towards traffic signal upgrade work at the intersection of Broadway and 56th Street which would include the installation of a video-based vehicle detection system and traffic signal controller. In addition, the project may be required to include traffic calming devices such as undulations, stop signs, and additional 4-way intersections along residential streets at the discretion of the City. The intersection of Fairgrounds Drive/56th Street and Broadway is signalized and includes crosswalks and sidewalks are available along Fairgrounds Drive and Broadway. The proposed project would not remove pedestrian or bicycle facilities or impede access to public transportation. The proposed project would not conflict with surrounding land uses, or result in a change in air traffic patterns. With incorporation of the pedestrian rectangular rapid flashing beacon at 53rd Street and Broadway, contribution of funds to traffic signal upgrade work at the intersection of Broadway and 56th Street, and additional traffic calming measures, impacts would be less than significant.

Mitigation Measures

Mitigation Measure TRAF-1

Prior to the start of any construction activities, a Construction Traffic Management plan shall be prepared to the satisfaction of the City's Traffic Engineer and subject to review by all affected agencies. The plan shall ensure that acceptable operating conditions on roadways are maintained. At a minimum, the plan shall include:

- Description of trucks including: number and size of trucks per day, expected arrival / departure times, truck circulation patterns.
- Description of staging area including: location, maximum number of trucks simultaneously permitted in staging area, use of traffic control personnel, specific signage.
- Description of street closures and/or bicycle and pedestrian facility closures including: duration, advance warning and posted signage, safe and efficient access routes for emergency vehicles, and use of manual traffic control.
- Description of access plan including: provisions for safe vehicular, pedestrian, and bicycle travel, minimum distance from any open trench, special signage, and private vehicle accesses.
- Provisions for parking for construction workers.

Findings

All significant environmental effects of the project relating to Transportation and Traffic can be mitigated to a less-than-significant level with Mitigation Measure TRAF-1.

3.13 Tribal Cultural Resources

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

Environmental Setting

Assembly Bill (AB) 52 establishes a consultation process, effective July 1, 2015, between California public agencies and California Native American Tribes. AB 52 further establishes a category of resources known as tribal cultural resources. At the outset of the CEQA process, public agencies must notify tribes that have requested such notice, of any project that has the potential to impact a tribal cultural resource. The City sent letters to tribes that have requested notification and is completing consultation as required by AB52.

Additionally, Senate Bill (SB) 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.). As the proposed project includes a general plan amendment, the City of Sacramento has initiated consultation under SB 18 (Government Code section 65352.3).

Relevant General Plan Policies

The following General Plan policies related to tribal cultural resources are applicable to the proposed project:

Historic and Cultural Resources

Policy HCR 2.1.3: Consultation. The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines", etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.

Standards of Significance

The significance criteria used to evaluate the project impacts to tribal cultural resources is based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to tribal cultural resources would occur if the project would:

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

   ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

The MEIR analyzed impacts to archeological resources within the City under the 2035 General Plan. Archeological materials originating from Native American groups that have occupied the City and surrounding areas for thousands of years prior to settlement of non-Native people have been found throughout the City. High sensitivity areas within the City are often associated with the Sacramento and American rivers, along with other watercourses. The MEIR found that development under the 2035 General Plan could impact archeological resources, which could include tribal cultural resources. As protection of all important archeological resources from damage or destruction cannot be assured, the MEIR concluded that impacts to archeological resources would be significant and unavoidable. As the MEIR predated AB 52 consultation requirements, specific impacts to other tribal cultural resources were not evaluated in the MEIR.

Answers to Checklist Questions

a,b) The City sent letters to those California Native American Tribal representatives that have requested consultation notification of the proposed project pursuant to AB 52 and that are on file with the NAHC as being traditionally or culturally affiliated with the geographic area. A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code, §21084.2). Under AB 52 a tribal cultural resource must have tangible, geographically defined properties that can be impacted by project implementation.

The 30-day response period closed on December 7, 2018, and the City received a response from the United Auburn Indian Community (UAIC). The UAIC requested consultation with the City and asked for a copy of the Cultural Resources Letter Report prepared for the project. The City provided this information as requested. Should a tribal cultural resource be identified that may be impacted, appropriate steps for management will be taken as determined by the City. Mitigation Measure CUL 1 provides specific steps to be taken in the event that unanticipated cultural resources, including those of Native American origin, are encountered during project construction. With this mitigation implemented, the potential for impacts to tribal cultural resources would be less than significant.

Mitigation Measures

Mitigation Measure TCR 1 Implement Mitigation Measures CUL-1 through CUL-3.

Findings

All significant environmental effects of the project relating to Tribal Cultural Resources can be mitigated to a less-than-significant level with Mitigation Measure TCR-1.

3.14 Utilities and Service Systems

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
XIV. UTILITIES AND SERVICE SYSTEMS – Would the project…			
a) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?	☒	☐	☐

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
b) Require or result in the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental effects?	☒	☐	☐

Environmental Setting

The project site is currently undeveloped, with the exception of 16 carports, sidewalks and paved parking areas along with over 200 trees and grass areas. The City provides water service to the project site and sewer service is provided by the Sacramento Regional County Sanitation District (SRCSD). Drainage from the project site flows into the City's storm drain system. The City would collect and dispose of solid waste generated by the proposed project.

Water

The City would provide water to serve the proposed project. Water supply is obtained from the American and Sacramento rivers, along with groundwater wells. The City's 2015 Urban Water Management Plan (UWMP) determined that the City has adequate water supplies to meet the demands of development under the 2035 General Plan. The City possesses 275,917 acre-feet per year (AFY) in water supplies during multiple-dry years, and this amount will increase until 2035 for a total of 294,419 AFY during multiple-dry years (City of Sacramento 2016a). The City's retail water demand was 84,832 acre-feet (AF) in 2015. The City estimates that its multiple-dry year water demand will be 123,229 AFY in 2020 and 149,213 AFY in 2035. Therefore, the City would possess an excess supply of at least 145,206 AFY of water in the most conservative case (City of Sacramento 2016a).

The proposed project would include the construction of on-site 8-inch water lines to connect to existing 8-inch water lines along the north, west, and east portions of Fairgrounds Drive, as well as to the south of the project site.

Sewer

SRCSD provides wastewater treatment services for the project site. Wastewater is collected by the City's sewer system, transported to the SRCSD sewer system, and ultimately conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWWTP), located in Elk Grove, for

treatment. The SRWWTP's current average dry weather flow (ADWF) is approximately 119 million gallons daily (mgd), with a permitted capacity of 181 mgd for ADWF (CRWQCB 2016).

The proposed project would connect to existing 8-inch sewer lines within Fairgrounds Drive to the north, west, and east of the project site, and connections along the south side of the project site. The project would install new 8-inch sewer lines to serve the site.

Storm Water Drainage

Storm drain infrastructure within the project area consists of gutters, drain inlets, pipes, detention basins, and pumping facilities. The City's drainage system operates through a gravity system of pipes which carry storm water into regional detention basins. The proposed project would connect to existing 18-inch storm drain lines along the west and east side of the project site and 21 to 24-inch storm drain lines along the northern portion of the site. The project would install a 15-inch storm drain line to serve the site.

Solid Waste

Residential solid waste within the City is collected by the Sacramento Department of General Services, and private haulers collect commercial solid waste. Solid waste collected within the City is then transported to the Sacramento Recycling and Transfer Station (8491 Fruitridge Road and 4550 Roseville Road), and transferred to the Kiefer Landfill. The Kiefer Landfill has a permitted capacity of up to 10,815 tons per day, and accepts approximately 6,300 tons of solid waste per day on average. The landfill accepts municipal and industrial waste, including household hazardous waste, and is expected to have sufficient capacity until 2065.

Standards of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the project would:

a. Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments.

b. Require or result in the construction of new utilities or expansion of existing utilities, the construction of which could cause significant environmental effects.

Summary of Analysis Under the 2035 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

Section 4.11 of the MEIR addresses the utilities and service systems effects of development within the City under the 2035 General Plan. The MEIR analyzed impacts from development under the 2035 General Plan on water, wastewater, sewer and storm drainage, solid waste, and electricity and natural gas. The MEIR concluded that although policies included under the 2035 General Plan would reduce water supply impacts, effects would remain significant and unavoidable due to an increased demand for potable water and a need for the construction of new water facilities. Impacts related to wastewater treatment and conveyance facilities were determined to be less than significant. Future buildout under the 2035 General Plan was also found to have a less-than-significant impact on solid waste facilities and storm water drainage conveyance facilities. Implementation of policies included in the 2035 General Plan and compliance with Title 20 and Title 24 energy efficiency standards would reduce impacts regarding energy to less than significant. Relevant policies from the 2035 General Plan are included below.

Relevant General Plan Policies

The following General Plan policies related to utilities and service systems are applicable to the proposed project:

Utilities

Policy U 1.1.6: Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy U 1.1.11: Underground Utilities. The City shall require undergrounding of all new publicly-owned utility lines, encourage undergrounding of all privately-owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines.

Policy U 2.1.9: New Development. The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

Policy U 2.1.15: Landscaping. The City shall continue to require the use of water-efficient and river friendly landscaping in all new development, and shall use water conservation gardens (e.g., Glen Ellen Water Conservation Office) to demonstrate and promote water conserving landscapes.

Policy U 2.1.16: River-Friendly Landscaping. The City shall promote "River Friendly Landscaping" techniques which include the use of native and climate appropriate plants; sustainable design and maintenance; underground (water-efficient) irrigation; and yard waste reduction practices.

Wastewater and Stormwater Drainage Systems

Utilities Element

Goal U 1.1: High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services in all areas of the city.

Policy U 1.1.5: Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy U 4.1.5: Green Stormwater Infrastructure. The City shall encourage "green infrastructure" design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).

Policy U 4.1.6: New Development. The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure" and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.

Environmental Resources Element

Goal ER 1.1: Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers and their shorelines.

Policy ER 1.1.5: Limit Stormwater Peak Flows. The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

Policy ER 1.1.6: Post-Development Runoff. The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.

Solid Waste

Utilities Element

Goal U 5.1: Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

Policy U 5.1.8: Diversion of Waste. The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

Policy U 5.1.14: Recycled Materials in New Construction. The City shall encourage the use of recycled materials in new construction.

Policy U 5.1.15: Recycling and Reuse of Construction Wastes. The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting 85 percent to a certified recycling processor.

Answers to Checklist Questions

a) The proposed project would subdivide the site into 68 single-family lots on 8.68 acres. The project site is currently largely undeveloped and does not require water, wastewater, or solid waste services. Therefore, the proposed project would generate an increased demand for water, wastewater, and solid waste services on the project site. Table 5 shows the estimated water demand for the project based on water demand rates from the City's Water Distribution System Criteria (City of Sacramento 2016b). The expected water demand for the project is approximately ~~41.48~~ 26.52 acre-feet per year (AFY) during project operation.

Table 5
Proposed Project Water Demand

Land Use	Amount	Rate	Demand (AFY)
Traditional Neighborhood ~~Low~~ Medium Density	68 single-family dwelling units	0.39 ~~61~~AFY/dwelling unit	~~41.48~~ 26.52
		Total	**~~41.48~~ 26.52**

Source: City of Sacramento 2016b.

The 2035 General Plan MEIR determined that buildout of the 2035 General Plan would increase total water demand by 260,984 AFY. As shown in Table 5, the proposed project is expected to require approximately ~~41.48~~ 26.52 AFY of water during operation. The City's water supply would be approximately 145,206 AFY more than the City's projected demand under the 2035 General Plan during the highest water use year. The construction of residential uses on the project site at a higher density than what the project is proposing has been factored into the City's 2035 General Plan MEIR and 2015 UWMP. Therefore, the 2035 General Plan MEIR considered the water demands of developing the site with residential uses. Furthermore, the proposed project would include fewer units than anticipated in the 2035 General Plan. The City's water supply would sufficiently serve the project's water demand. Because the City would have adequate water supply to serve the project, a less-than-significant impact regarding water supply would occur.

According to the SRCSD Interceptor Sequencing Study, the SRCSD utilizes Equivalent Single-Family Dwelling Units (ESD), units that describe an equivalent wastewater flow as that from a typical single-family dwelling, to determine overall wastewater generation. The SRCSD uses a generation rate of 310 gallons per day (gpd) of wastewater per ESD (SRCSD 2010). Table 6 shows the projected volume of wastewater generation from the project based on ESD equivalent factors provided by the SRCSD.

Table 6
Proposed Project Wastewater Generation

Proposed Use	Units	Flow Rate	ESD	Average Dry Weather Flow (ADWF)
Traditional Neighborhood ~~Low~~ Medium Density	68 single-family dwelling units	310 gpd/ESD	68 ESD	0.02 mgd
	Project Total	**21,080 gpd**	**68 ESD**	**0.02 mgd**

Notes: ADWF (mgd) = (310 gpd/ESD) * (# ESDs/acre) * (# acres) / 1,000,000
Source: SRCSD 2010.

As shown in Table 6, the proposed project would have an average dry weather flow (ADWF) of approximately 0.02 mgd. Sewer flows would ultimately be conveyed to the SRWWTP for treatment prior to being discharged into the Sacramento River. The SRWWTP's current ADWF is approximately 119 mgd, with a permitted capacity of 181 mgd for ADWF (CRWQCB 2016). Thus, the SRWWTP currently has an excess capacity of 62 mgd. As previously stated, the proposed project is anticipated to have an ADWF of 0.02 mgd. As the SRWWTP currently has an excess capacity of 16 mgd, adequate capacity is currently available and is expected to remain available in the future to serve the proposed project. Furthermore, because the proposed project would include fewer units than anticipated in the 2035 General Plan, it would generate less wastewater than evaluated in the 2035 General Plan MEIR. The SRWWTP has adequate capacity to provide wastewater services to serve the proposed project without adverse impacts to current service levels and the treatment plant would not need to be expanded to accommodate the project. The project applicant would be required to pay development fees, including the Sacramento County Regional Sanitation Fee, Public Works Fee, Water Development Fee, and Utilities Fee, which would mitigate any impacts on the City's water and wastewater treatment and conveyance systems. Therefore, the project's impact would be less than significant.

b) The proposed project would connect to existing water, sewer and storm-drain lines in the project vicinity. The project would convey storm water into the City's existing storm drain system, which has been designed to accommodate flows associated with development in the surrounding area. No new utilities or expansion of existing utilities would be required; therefore, impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Findings

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

3.15 Mandatory Findings of Significance

	No additional significant effect	Additional significant effect can be mitigated to less than significant	Additional significant environmental effect; EIR will be prepared
XV. MANDATORY FINDINGS OF SIGNIFICANCE – Would the project…			
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?	☒	☐	☐
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)?	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐

a) As discussed above, the proposed project would not degrade the quality of the habitat of a fish or wildlife species, reduce the available habitat resulting in a drop in population of a species, eliminate a plant or animal community, or in any way restrict the range of a protected species. The project site does not contain significant historical resources that would be impacted by project implementation. Therefore, impacts would be less than significant.

b) The cumulative context for the proposed project is the continued buildout of the City's 2035 General Plan. As discussed in Items 1 through 18, with implementation of applicable General Plan policies, required regulation and ordinances, and the mitigation measures previously identified herein, the proposed project would not substantially contribute to

cumulative impacts and/or cause the cumulative impacts of the 2035 General Plan EIR to exceed the levels described in the Master EIR. The proposed project is consistent with the City's 2035 General Plan and would not result in new or increased cumulative impacts.

c) The proposed project would not result in environmental impacts that would affect the health or safety of human beings, directly or indirectly. Therefore, no impact would occur.

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: Ron Bess, Assistant Planner

May 9, 2019
Date

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4 REFERENCES AND PREPARERS

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4.2 List of Preparers

Dudek prepared this document under the direction of the City of Sacramento.

City of Sacramento Environmental Planning Services

Ron Bess, Assistant Planner

Dudek

Christine Kronenberg, AICP, Project Manager
Shilpa Iyer
Ian McIntire

APPENDIX A

Air Quality and Greenhouse Gas Emissions Modeling Report

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/9/2018 10:27 AM

Fairgrounds Drive Subdivision Project

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.20	Acre	1.20	52,272.00	0
Single Family Housing	68.00	Dwelling Unit	7.48	122,400.00	182

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	499.66	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Fairgrounds Drive Subdivision Project. SMAQMD. Adjusted CO2 intensity based on 33% RPS by 2020.

Land Use - Construction of 68 single-family homes on a 8.68-acre site.

Construction Phase - Construction assumed to begin July 2019.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Grading - Assumed that soil would be balanced onsite.

Demolition - 754 tons of pavement to be removed estimated area from Google Earth.

Trips and VMT - Rounded up trips.

Construction Off-road Equipment Mitigation - Standard fugitive dust practices assumed.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% waste diversion consistent with the City's goal and AB 341.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	15.00
tblGrading	AcresOfGrading	7.50	10.00
tblLandUse	LotAcreage	22.08	7.48
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	590.31	499.66
tblTripsAndVMT	HaulingTripNumber	75.00	76.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1732	1.6494	1.2111	2.1400e-003	0.1672	0.0884	0.2556	0.0812	0.0823	0.1635	0.0000	190.9705	190.9705	0.0466	0.0000	192.1357
2020	0.9784	1.8191	1.6223	2.9700e-003	0.0383	0.0979	0.1361	0.0104	0.0922	0.1026	0.0000	260.3086	260.3086	0.0507	0.0000	261.5749
Maximum	**0.9784**	**1.8191**	**1.6223**	**2.9700e-003**	**0.1672**	**0.0979**	**0.2556**	**0.0812**	**0.0922**	**0.1635**	**0.0000**	**260.3086**	**260.3086**	**0.0507**	**0.0000**	**261.5749**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1732	1.6494	1.2111	2.1400e-003	0.0851	0.0884	0.1735	0.0392	0.0823	0.1215	0.0000	190.9703	190.9703	0.0466	0.0000	192.1355
2020	0.9784	1.8191	1.6222	2.9700e-003	0.0383	0.0979	0.1361	0.0104	0.0922	0.1026	0.0000	260.3084	260.3084	0.0507	0.0000	261.5747
Maximum	**0.9784**	**1.8191**	**1.6222**	**2.9700e-003**	**0.0851**	**0.0979**	**0.1735**	**0.0392**	**0.0922**	**0.1215**	**0.0000**	**260.3084**	**260.3084**	**0.0507**	**0.0000**	**261.5747**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**39.94**	**0.00**	**20.95**	**45.86**	**0.00**	**15.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5800	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733
Energy	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	223.8800	223.8800	9.3500e-003	3.2800e-003	225.0915
Mobile	0.2026	0.8733	2.4006	7.2800e-003	0.6149	6.5500e-003	0.6215	0.1649	6.1300e-003	0.1710	0.0000	669.2808	669.2808	0.0329	0.0000	670.1023
Waste						0.0000	0.0000		0.0000	0.0000	13.3000	0.0000	13.3000	0.7860	0.0000	32.9501
Water						0.0000	0.0000		0.0000	0.0000	1.5675	7.2188	8.7863	5.8100e-003	3.5000e-003	9.9734
Total	**0.7921**	**0.9624**	**3.1379**	**7.8400e-003**	**0.6149**	**0.0170**	**0.6319**	**0.1649**	**0.0165**	**0.1814**	**14.8675**	**901.5251**	**916.3926**	**0.8351**	**6.7800e-003**	**939.2906**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5800	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733
Energy	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	223.8800	223.8800	9.3500e-003	3.2800e-003	225.0915
Mobile	0.2026	0.8733	2.4006	7.2800e-003	0.6149	6.5500e-003	0.6215	0.1649	6.1300e-003	0.1710	0.0000	669.2808	669.2808	0.0329	0.0000	670.1023
Waste						0.0000	0.0000		0.0000	0.0000	3.3250	0.0000	3.3250	0.1965	0.0000	8.2375
Water						0.0000	0.0000		0.0000	0.0000	1.2540	5.7751	7.0291	4.6500e-003	2.8000e-003	7.9787
Total	**0.7921**	**0.9624**	**3.1379**	**7.8400e-003**	**0.6149**	**0.0170**	**0.6319**	**0.1649**	**0.0165**	**0.1814**	**4.5790**	**900.0814**	**904.6604**	**0.2445**	**6.0800e-003**	**912.5833**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.20	0.16	1.28	70.73	10.32	2.84

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	7/1/2019	7/19/2019	5	15	
2	Site Preparation	Site Preparation	7/20/2019	8/2/2019	5	10	
3	Grading	Grading	8/3/2019	8/23/2019	5	15	
4	Trenching	Trenching	8/24/2019	9/6/2019	5	10	
5	Paving	Paving	9/7/2019	10/4/2019	5	20	
6	Building Construction	Building Construction	10/5/2019	8/21/2020	5	230	
7	Architectural Coating	Architectural Coating	6/6/2020	8/21/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.2

Residential Indoor: 247,860; Residential Outdoor: 82,620; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Trenchers	1	8.00	78	0.50
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	0.00	76.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.4100e-003	0.0000	8.4100e-003	1.2700e-003	0.0000	1.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2684	0.1655	2.9000e-004		0.0135	0.0135		0.0125	0.0125	0.0000	25.9698	25.9698	7.2200e-003	0.0000	26.1504
Total	**0.0264**	**0.2684**	**0.1655**	**2.9000e-004**	**8.4100e-003**	**0.0135**	**0.0219**	**1.2700e-003**	**0.0125**	**0.0138**	**0.0000**	**25.9698**	**25.9698**	**7.2200e-003**	**0.0000**	**26.1504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	0.0118	2.8600e-003	3.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.2000e-004	0.0000	2.9381	2.9381	1.7000e-004	0.0000	2.9425
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.6800e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8057	0.8057	3.0000e-005	0.0000	0.8063
Total	**8.3000e-004**	**0.0122**	**6.5400e-003**	**4.0000e-005**	**1.5200e-003**	**6.0000e-005**	**1.5800e-003**	**4.1000e-004**	**6.0000e-005**	**4.6000e-004**	**0.0000**	**3.7438**	**3.7438**	**2.0000e-004**	**0.0000**	**3.7488**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7800e-003	0.0000	3.7800e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2684	0.1655	2.9000e-004		0.0135	0.0135		0.0125	0.0125	0.0000	25.9697	25.9697	7.2200e-003	0.0000	26.1503
Total	**0.0264**	**0.2684**	**0.1655**	**2.9000e-004**	**3.7800e-003**	**0.0135**	**0.0172**	**5.7000e-004**	**0.0125**	**0.0131**	**0.0000**	**25.9697**	**25.9697**	**7.2200e-003**	**0.0000**	**26.1503**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	0.0118	2.8600e-003	3.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.2000e-004	0.0000	2.9381	2.9381	1.7000e-004	0.0000	2.9425
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.6800e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8057	0.8057	3.0000e-005	0.0000	0.8063
Total	**8.3000e-004**	**0.0122**	**6.5400e-003**	**4.0000e-005**	**1.5200e-003**	**6.0000e-005**	**1.5800e-003**	**4.1000e-004**	**6.0000e-005**	**4.6000e-004**	**0.0000**	**3.7438**	**3.7438**	**2.0000e-004**	**0.0000**	**3.7488**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	2.7600e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6042	0.6042	2.0000e-005	0.0000	0.6047
Total	**3.6000e-004**	**2.6000e-004**	**2.7600e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6042**	**0.6042**	**2.0000e-005**	**0.0000**	**0.6047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0407**	**0.0120**	**0.0526**	**0.0223**	**0.0110**	**0.0333**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	2.7600e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6042	0.6042	2.0000e-005	0.0000	0.6047
Total	**3.6000e-004**	**2.6000e-004**	**2.7600e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6042**	**0.6042**	**2.0000e-005**	**0.0000**	**0.6047**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0505	0.0000	0.0505	0.0254	0.0000	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2126	0.1222	2.2000e-004		0.0105	0.0105		9.6400e-003	9.6400e-003	0.0000	19.9817	19.9817	6.3200e-003	0.0000	20.1398
Total	**0.0194**	**0.2126**	**0.1222**	**2.2000e-004**	**0.0505**	**0.0105**	**0.0610**	**0.0254**	**9.6400e-003**	**0.0350**	**0.0000**	**19.9817**	**19.9817**	**6.3200e-003**	**0.0000**	**20.1398**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.6800e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8057	0.8057	3.0000e-005	0.0000	0.8063
Total	**4.9000e-004**	**3.4000e-004**	**3.6800e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8057**	**0.8057**	**3.0000e-005**	**0.0000**	**0.8063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0227	0.0000	0.0227	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2126	0.1222	2.2000e-004		0.0105	0.0105		9.6400e-003	9.6400e-003	0.0000	19.9817	19.9817	6.3200e-003	0.0000	20.1397
Total	**0.0194**	**0.2126**	**0.1222**	**2.2000e-004**	**0.0227**	**0.0105**	**0.0332**	**0.0114**	**9.6400e-003**	**0.0211**	**0.0000**	**19.9817**	**19.9817**	**6.3200e-003**	**0.0000**	**20.1397**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.6800e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8057	0.8057	3.0000e-005	0.0000	0.8063
Total	**4.9000e-004**	**3.4000e-004**	**3.6800e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8057**	**0.8057**	**3.0000e-005**	**0.0000**	**0.8063**

3.5 Trenching - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8100e-003	0.0564	0.0526	7.0000e-005		3.6900e-003	3.6900e-003		3.4000e-003	3.4000e-003	0.0000	6.6306	6.6306	2.1000e-003	0.0000	6.6830
Total	**5.8100e-003**	**0.0564**	**0.0526**	**7.0000e-005**		**3.6900e-003**	**3.6900e-003**		**3.4000e-003**	**3.4000e-003**	**0.0000**	**6.6306**	**6.6306**	**2.1000e-003**	**0.0000**	**6.6830**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.5300e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3357	0.3357	1.0000e-005	0.0000	0.3360
Total	**2.0000e-004**	**1.4000e-004**	**1.5300e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.0000e-005**	**0.0000**	**0.3360**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8100e-003	0.0564	0.0526	7.0000e-005		3.6900e-003	3.6900e-003		3.4000e-003	3.4000e-003	0.0000	6.6306	6.6306	2.1000e-003	0.0000	6.6830
Total	**5.8100e-003**	**0.0564**	**0.0526**	**7.0000e-005**		**3.6900e-003**	**3.6900e-003**		**3.4000e-003**	**3.4000e-003**	**0.0000**	**6.6306**	**6.6306**	**2.1000e-003**	**0.0000**	**6.6830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.5300e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3357	0.3357	1.0000e-005	0.0000	0.3360
Total	**2.0000e-004**	**1.4000e-004**	**1.5300e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.0000e-005**	**0.0000**	**0.3360**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	1.5700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.5000e-004	4.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0742	1.0742	3.0000e-005	0.0000	1.0750
Total	**6.5000e-004**	**4.5000e-004**	**4.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0742**	**1.0742**	**3.0000e-005**	**0.0000**	**1.0750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	1.5700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.5000e-004	4.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0742	1.0742	3.0000e-005	0.0000	1.0750
Total	**6.5000e-004**	**4.5000e-004**	**4.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0742**	**1.0742**	**3.0000e-005**	**0.0000**	**1.0750**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0732	0.6534	0.5321	8.3000e-004		0.0400	0.0400		0.0376	0.0376	0.0000	72.8823	72.8823	0.0178	0.0000	73.3262
Total	**0.0732**	**0.6534**	**0.5321**	**8.3000e-004**		**0.0400**	**0.0400**		**0.0376**	**0.0376**	**0.0000**	**72.8823**	**72.8823**	**0.0178**	**0.0000**	**73.3262**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3800e-003	0.0608	0.0186	1.2000e-004	2.9000e-003	4.3000e-004	3.3300e-003	8.4000e-004	4.1000e-004	1.2500e-003	0.0000	11.8093	11.8093	7.4000e-004	0.0000	11.8278
Worker	5.7700e-003	4.0500e-003	0.0438	1.1000e-004	0.0105	8.0000e-005	0.0106	2.7900e-003	7.0000e-005	2.8600e-003	0.0000	9.5738	9.5738	3.0000e-004	0.0000	9.5812
Total	**8.1500e-003**	**0.0649**	**0.0624**	**2.3000e-004**	**0.0134**	**5.1000e-004**	**0.0139**	**3.6300e-003**	**4.8000e-004**	**4.1100e-003**	**0.0000**	**21.3831**	**21.3831**	**1.0400e-003**	**0.0000**	**21.4090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0732	0.6534	0.5321	8.3000e-004		0.0400	0.0400		0.0376	0.0376	0.0000	72.8822	72.8822	0.0178	0.0000	73.3261
Total	**0.0732**	**0.6534**	**0.5321**	**8.3000e-004**		**0.0400**	**0.0400**		**0.0376**	**0.0376**	**0.0000**	**72.8822**	**72.8822**	**0.0178**	**0.0000**	**73.3261**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3800e-003	0.0608	0.0186	1.2000e-004	2.9000e-003	4.3000e-004	3.3300e-003	8.4000e-004	4.1000e-004	1.2500e-003	0.0000	11.8093	11.8093	7.4000e-004	0.0000	11.8278
Worker	5.7700e-003	4.0500e-003	0.0438	1.1000e-004	0.0105	8.0000e-005	0.0106	2.7900e-003	7.0000e-005	2.8600e-003	0.0000	9.5738	9.5738	3.0000e-004	0.0000	9.5812
Total	**8.1500e-003**	**0.0649**	**0.0624**	**2.3000e-004**	**0.0134**	**5.1000e-004**	**0.0139**	**3.6300e-003**	**4.8000e-004**	**4.1100e-003**	**0.0000**	**21.3831**	**21.3831**	**1.0400e-003**	**0.0000**	**21.4090**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1781	1.6116	1.4153	2.2600e-003		0.0938	0.0938		0.0882	0.0882	0.0000	194.5524	194.5524	0.0475	0.0000	195.7390
Total	**0.1781**	**1.6116**	**1.4153**	**2.2600e-003**		**0.0938**	**0.0938**		**0.0882**	**0.0882**	**0.0000**	**194.5524**	**194.5524**	**0.0475**	**0.0000**	**195.7390**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1400e-003	0.1507	0.0420	3.3000e-004	7.8600e-003	7.8000e-004	8.6400e-003	2.2700e-003	7.5000e-004	3.0200e-003	0.0000	31.8008	31.8008	1.8800e-003	0.0000	31.8479
Worker	0.0144	9.7500e-003	0.1070	2.8000e-004	0.0284	2.0000e-004	0.0286	7.5500e-003	1.9000e-004	7.7400e-003	0.0000	25.1444	25.1444	7.1000e-004	0.0000	25.1622
Total	**0.0195**	**0.1605**	**0.1490**	**6.1000e-004**	**0.0362**	**9.8000e-004**	**0.0372**	**9.8200e-003**	**9.4000e-004**	**0.0108**	**0.0000**	**56.9453**	**56.9453**	**2.5900e-003**	**0.0000**	**57.0101**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1781	1.6116	1.4153	2.2600e-003		0.0938	0.0938		0.0882	0.0882	0.0000	194.5522	194.5522	0.0475	0.0000	195.7388
Total	**0.1781**	**1.6116**	**1.4153**	**2.2600e-003**		**0.0938**	**0.0938**		**0.0882**	**0.0882**	**0.0000**	**194.5522**	**194.5522**	**0.0475**	**0.0000**	**195.7388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1400e-003	0.1507	0.0420	3.3000e-004	7.8600e-003	7.8000e-004	8.6400e-003	2.2700e-003	7.5000e-004	3.0200e-003	0.0000	31.8008	31.8008	1.8800e-003	0.0000	31.8479
Worker	0.0144	9.7500e-003	0.1070	2.8000e-004	0.0284	2.0000e-004	0.0286	7.5500e-003	1.9000e-004	7.7400e-003	0.0000	25.1444	25.1444	7.1000e-004	0.0000	25.1622
Total	**0.0195**	**0.1605**	**0.1490**	**6.1000e-004**	**0.0362**	**9.8000e-004**	**0.0372**	**9.8200e-003**	**9.4000e-004**	**0.0108**	**0.0000**	**56.9453**	**56.9453**	**2.5900e-003**	**0.0000**	**57.0101**

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7732					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0215	7.0215	5.4000e-004	0.0000	7.0350
Total	**0.7798**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0215**	**7.0215**	**5.4000e-004**	**0.0000**	**7.0350**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.9000e-004	7.6100e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.7895	1.7895	5.0000e-005	0.0000	1.7908
Total	**1.0200e-003**	**6.9000e-004**	**7.6100e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.7895**	**1.7895**	**5.0000e-005**	**0.0000**	**1.7908**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7732					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0214	7.0214	5.4000e-004	0.0000	7.0350
Total	**0.7798**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0214**	**7.0214**	**5.4000e-004**	**0.0000**	**7.0350**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.9000e-004	7.6100e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.7895	1.7895	5.0000e-005	0.0000	1.7908
Total	**1.0200e-003**	**6.9000e-004**	**7.6100e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.7895**	**1.7895**	**5.0000e-005**	**0.0000**	**1.7908**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2026	0.8733	2.4006	7.2800e-003	0.6149	6.5500e-003	0.6215	0.1649	6.1300e-003	0.1710	0.0000	669.2808	669.2808	0.0329	0.0000	670.1023
Unmitigated	0.2026	0.8733	2.4006	7.2800e-003	0.6149	6.5500e-003	0.6215	0.1649	6.1300e-003	0.1710	0.0000	669.2808	669.2808	0.0329	0.0000	670.1023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	647.36	673.88	586.16	1,648,483	1,648,483
Total	647.36	673.88	586.16	1,648,483	1,648,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915
Single Family Housing	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	130.1326	130.1326	7.5500e-003	1.5600e-003	130.7871
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	130.1326	130.1326	7.5500e-003	1.5600e-003	130.7871
NaturalGas Mitigated	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	93.7474	93.7474	1.8000e-003	1.7200e-003	94.3044
NaturalGas Unmitigated	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	93.7474	93.7474	1.8000e-003	1.7200e-003	94.3044

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Single Family Housing	1.75676e+006	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	93.7474	93.7474	1.8000e-003	1.7200e-003	94.3044
Total		**9.4700e-003**	**0.0810**	**0.0345**	**5.2000e-004**		**6.5400e-003**	**6.5400e-003**		**6.5400e-003**	**6.5400e-003**	**0.0000**	**93.7474**	**93.7474**	**1.8000e-003**	**1.7200e-003**	**94.3044**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Single Family Housing	1.75676e+006	9.4700e-003	0.0810	0.0345	5.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	93.7474	93.7474	1.8000e-003	1.7200e-003	94.3044
Total		**9.4700e-003**	**0.0810**	**0.0345**	**5.2000e-004**		**6.5400e-003**	**6.5400e-003**		**6.5400e-003**	**6.5400e-003**	**0.0000**	**93.7474**	**93.7474**	**1.8000e-003**	**1.7200e-003**	**94.3044**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	574177	130.1326	7.5500e-003	1.5600e-003	130.7871
Total		**130.1326**	**7.5500e-003**	**1.5600e-003**	**130.7871**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	574177	130.1326	7.5500e-003	1.5600e-003	130.7871
Total		**130.1326**	**7.5500e-003**	**1.5600e-003**	**130.7871**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5800	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733
Unmitigated	0.5800	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0213	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733
Total	**0.5800**	**8.1100e-003**	**0.7028**	**4.0000e-005**		**3.8700e-003**	**3.8700e-003**		**3.8700e-003**	**3.8700e-003**	**0.0000**	**1.1455**	**1.1455**	**1.1100e-003**	**0.0000**	**1.1733**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0213	8.1100e-003	0.7028	4.0000e-005		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	1.1455	1.1455	1.1100e-003	0.0000	1.1733
Total	**0.5800**	**8.1100e-003**	**0.7028**	**4.0000e-005**		**3.8700e-003**	**3.8700e-003**		**3.8700e-003**	**3.8700e-003**	**0.0000**	**1.1455**	**1.1455**	**1.1100e-003**	**0.0000**	**1.1733**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.0291	4.6500e-003	2.8000e-003	7.9787
Unmitigated	8.7863	5.8100e-003	3.5000e-003	9.9734

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.43047 / 2.79312	8.7863	5.8100e-003	3.5000e-003	9.9734
Total		**8.7863**	**5.8100e-003**	**3.5000e-003**	**9.9734**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.54438 / 2.2345	7.0291	4.6500e-003	2.8000e-003	7.9787
Total		**7.0291**	**4.6500e-003**	**2.8000e-003**	**7.9787**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.3250	0.1965	0.0000	8.2375
Unmitigated	13.3000	0.7860	0.0000	32.9501

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	65.52	13.3000	0.7860	0.0000	32.9501
Total		**13.3000**	**0.7860**	**0.0000**	**32.9501**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	16.38	3.3250	0.1965	0.0000	8.2375
Total		**3.3250**	**0.1965**	**0.0000**	**8.2375**

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/9/2018 10:28 AM

Fairgrounds Drive Subdivision Project

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.20	Acre	1.20	52,272.00	0
Single Family Housing	68.00	Dwelling Unit	7.48	122,400.00	182

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	499.66	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Fairgrounds Drive Subdivision Project. SMAQMD. Adjusted CO2 intensity based on 33% RPS by 2020.

Land Use - Construction of 68 single-family homes on a 8.68-acre site.

Construction Phase - Construction assumed to begin July 2019.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Grading - Assumed that soil would be balanced onsite.

Demolition - 754 tons of pavement to be removed estimated area from Google Earth.

Trips and VMT - Rounded up trips.

Construction Off-road Equipment Mitigation - Standard fugitive dust practices assumed.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% waste diversion consistent with the City's goal and AB 341.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	15.00
tblGrading	AcresOfGrading	7.50	10.00
tblLandUse	LotAcreage	22.08	7.48
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	590.31	499.66
tblTripsAndVMT	HaulingTripNumber	75.00	76.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4194	45.6191	23.0115	0.0442	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	4,382.4536	4,382.4536	1.1963	0.0000	4,409.7326
2020	30.7786	22.7549	20.9805	0.0383	0.5223	1.2401	1.7624	0.1407	1.1728	1.3135	0.0000	3,700.7270	3,700.7270	0.6813	0.0000	3,717.7591
Maximum	**30.7786**	**45.6191**	**23.0115**	**0.0442**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**4,382.4536**	**4,382.4536**	**1.1963**	**0.0000**	**4,409.7326**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4194	45.6191	23.0115	0.0442	8.2668	2.3913	10.6581	4.5051	2.2000	6.7052	0.0000	4,382.4536	4,382.4536	1.1963	0.0000	4,409.7326
2020	30.7786	22.7549	20.9805	0.0383	0.5223	1.2401	1.7624	0.1407	1.1728	1.3135	0.0000	3,700.7270	3,700.7270	0.6813	0.0000	3,717.7591
Maximum	**30.7786**	**45.6191**	**23.0115**	**0.0442**	**8.2668**	**2.3913**	**10.6581**	**4.5051**	**2.2000**	**6.7052**	**0.0000**	**4,382.4536**	**4,382.4536**	**1.1963**	**0.0000**	**4,409.7326**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.06**	**0.00**	**44.44**	**54.04**	**0.00**	**40.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Energy	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Mobile	1.4696	4.8234	15.5550	0.0455	3.6688	0.0376	3.7064	0.9810	0.0352	1.0161		4,601.0500	4,601.0500	0.2150		4,606.4239
Total	**4.7534**	**5.3318**	**21.3662**	**0.0486**	**3.6688**	**0.1044**	**3.7733**	**0.9810**	**0.1020**	**1.0830**	**0.0000**	**5,177.3916**	**5,177.3916**	**0.2356**	**0.0104**	**5,186.3752**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Energy	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Mobile	1.4696	4.8234	15.5550	0.0455	3.6688	0.0376	3.7064	0.9810	0.0352	1.0161		4,601.0500	4,601.0500	0.2150		4,606.4239
Total	**4.7534**	**5.3318**	**21.3662**	**0.0486**	**3.6688**	**0.1044**	**3.7733**	**0.9810**	**0.1020**	**1.0830**	**0.0000**	**5,177.3916**	**5,177.3916**	**0.2356**	**0.0104**	**5,186.3752**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2019	7/19/2019	5	15	
2	Site Preparation	Site Preparation	7/20/2019	8/2/2019	5	10	
3	Grading	Grading	8/3/2019	8/23/2019	5	15	
4	Trenching	Trenching	8/24/2019	9/6/2019	5	10	
5	Paving	Paving	9/7/2019	10/4/2019	5	20	
6	Building Construction	Building Construction	10/5/2019	8/21/2020	5	230	
7	Architectural Coating	Architectural Coating	6/6/2020	8/21/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.2

Residential Indoor: 247,860; Residential Outdoor: 82,620; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Trenchers	1	8.00	78	0.50
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	0.00	76.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1215	0.0000	1.1215	0.1698	0.0000	0.1698			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**1.1215**	**1.7949**	**2.9164**	**0.1698**	**1.6697**	**1.8395**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.5182	0.3738	4.0600e-003	0.0882	6.5300e-003	0.0947	0.0241	6.2500e-003	0.0304		434.5715	434.5715	0.0252		435.2018
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.1191**	**1.5594**	**0.9515**	**5.3800e-003**	**0.2099**	**7.4000e-003**	**0.2173**	**0.0564**	**7.0500e-003**	**0.0635**		**565.5542**	**565.5542**	**0.0293**		**566.2875**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5047	0.0000	0.5047	0.0764	0.0000	0.0764			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**0.5047**	**1.7949**	**2.2996**	**0.0764**	**1.6697**	**1.7461**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.5182	0.3738	4.0600e-003	0.0882	6.5300e-003	0.0947	0.0241	6.2500e-003	0.0304		434.5715	434.5715	0.0252		435.2018
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.1191**	**1.5594**	**0.9515**	**5.3800e-003**	**0.2099**	**7.4000e-003**	**0.2173**	**0.0564**	**7.0500e-003**	**0.0635**		**565.5542**	**565.5542**	**0.0293**		**566.2875**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**8.1298**	**2.3904**	**10.5202**	**4.4688**	**2.1991**	**6.6679**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

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

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7291	0.0000	6.7291	3.3866	0.0000	3.3866			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.7291**	**1.3974**	**8.1265**	**3.3866**	**1.2856**	**4.6721**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.0750**	**0.0412**	**0.5777**	**1.3200e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**130.9827**	**130.9827**	**4.1200e-003**		**131.0857**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0281	0.0000	3.0281	1.5240	0.0000	1.5240			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**3.0281**	**1.3974**	**4.4255**	**1.5240**	**1.2856**	**2.8095**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.0750**	**0.0412**	**0.5777**	**1.3200e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**130.9827**	**130.9827**	**4.1200e-003**		**131.0857**

3.5 Trenching - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1623	11.2880	10.5185	0.0148		0.7384	0.7384		0.6794	0.6794		1,461.7942	1,461.7942	0.4625		1,473.3566
Total	**1.1623**	**11.2880**	**10.5185**	**0.0148**		**0.7384**	**0.7384**		**0.6794**	**0.6794**		**1,461.7942**	**1,461.7942**	**0.4625**		**1,473.3566**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0257	0.3611	8.2000e-004	0.0761	5.4000e-004	0.0766	0.0202	5.0000e-004	0.0207		81.8642	81.8642	2.5800e-003		81.9286
Total	**0.0469**	**0.0257**	**0.3611**	**8.2000e-004**	**0.0761**	**5.4000e-004**	**0.0766**	**0.0202**	**5.0000e-004**	**0.0207**		**81.8642**	**81.8642**	**2.5800e-003**		**81.9286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1623	11.2880	10.5185	0.0148		0.7384	0.7384		0.6794	0.6794	0.0000	1,461.7942	1,461.7942	0.4625		1,473.3566
Total	**1.1623**	**11.2880**	**10.5185**	**0.0148**		**0.7384**	**0.7384**		**0.6794**	**0.6794**	**0.0000**	**1,461.7942**	**1,461.7942**	**0.4625**		**1,473.3566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0257	0.3611	8.2000e-004	0.0761	5.4000e-004	0.0766	0.0202	5.0000e-004	0.0207		81.8642	81.8642	2.5800e-003		81.9286
Total	**0.0469**	**0.0257**	**0.3611**	**8.2000e-004**	**0.0761**	**5.4000e-004**	**0.0766**	**0.0202**	**5.0000e-004**	**0.0207**		**81.8642**	**81.8642**	**2.5800e-003**		**81.9286**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6116**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.0750**	**0.0412**	**0.5777**	**1.3200e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**130.9827**	**130.9827**	**4.1200e-003**		**131.0857**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6116**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0750	0.0412	0.5777	1.3200e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		130.9827	130.9827	4.1200e-003		131.0857
Total	**0.0750**	**0.0412**	**0.5777**	**1.3200e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**130.9827**	**130.9827**	**4.1200e-003**		**131.0857**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0757	1.9165	0.5722	4.0100e-003	0.0963	0.0138	0.1101	0.0277	0.0132	0.0409		424.4015	424.4015	0.0255		425.0391
Worker	0.2156	0.1184	1.6609	3.7900e-003	0.3499	2.4900e-003	0.3524	0.0928	2.3000e-003	0.0951		376.5752	376.5752	0.0119		376.8714
Total	**0.2913**	**2.0349**	**2.2331**	**7.8000e-003**	**0.4462**	**0.0163**	**0.4625**	**0.1205**	**0.0155**	**0.1361**		**800.9767**	**800.9767**	**0.0374**		**801.9106**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0757	1.9165	0.5722	4.0100e-003	0.0963	0.0138	0.1101	0.0277	0.0132	0.0409		424.4015	424.4015	0.0255		425.0391
Worker	0.2156	0.1184	1.6609	3.7900e-003	0.3499	2.4900e-003	0.3524	0.0928	2.3000e-003	0.0951		376.5752	376.5752	0.0119		376.8714
Total	**0.2913**	**2.0349**	**2.2331**	**7.8000e-003**	**0.4462**	**0.0163**	**0.4625**	**0.1205**	**0.0155**	**0.1361**		**800.9767**	**800.9767**	**0.0374**		**801.9106**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0603	1.7569	0.4722	3.9800e-003	0.0963	9.1600e-003	0.1055	0.0277	8.7600e-003	0.0365		421.8487	421.8487	0.0239		422.4463
Worker	0.1984	0.1053	1.5019	3.6700e-003	0.3499	2.4300e-003	0.3524	0.0928	2.2400e-003	0.0951		365.0160	365.0160	0.0105		365.2774
Total	**0.2587**	**1.8621**	**1.9741**	**7.6500e-003**	**0.4462**	**0.0116**	**0.4578**	**0.1205**	**0.0110**	**0.1315**		**786.8646**	**786.8646**	**0.0344**		**787.7237**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0603	1.7569	0.4722	3.9800e-003	0.0963	9.1600e-003	0.1055	0.0277	8.7600e-003	0.0365		421.8487	421.8487	0.0239		422.4463
Worker	0.1984	0.1053	1.5019	3.6700e-003	0.3499	2.4300e-003	0.3524	0.0928	2.2400e-003	0.0951		365.0160	365.0160	0.0105		365.2774
Total	**0.2587**	**1.8621**	**1.9741**	**7.6500e-003**	**0.4462**	**0.0116**	**0.4578**	**0.1205**	**0.0110**	**0.1315**		**786.8646**	**786.8646**	**0.0344**		**787.7237**

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**28.3569**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0431	0.0229	0.3265	8.0000e-004	0.0761	5.3000e-004	0.0766	0.0202	4.9000e-004	0.0207		79.3513	79.3513	2.2700e-003		79.4081
Total	**0.0431**	**0.0229**	**0.3265**	**8.0000e-004**	**0.0761**	**5.3000e-004**	**0.0766**	**0.0202**	**4.9000e-004**	**0.0207**		**79.3513**	**79.3513**	**2.2700e-003**		**79.4081**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**28.3569**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0431	0.0229	0.3265	8.0000e-004	0.0761	5.3000e-004	0.0766	0.0202	4.9000e-004	0.0207		79.3513	79.3513	2.2700e-003		79.4081
Total	**0.0431**	**0.0229**	**0.3265**	**8.0000e-004**	**0.0761**	**5.3000e-004**	**0.0766**	**0.0202**	**4.9000e-004**	**0.0207**		**79.3513**	**79.3513**	**2.2700e-003**		**79.4081**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4696	4.8234	15.5550	0.0455	3.6688	0.0376	3.7064	0.9810	0.0352	1.0161		4,601.0500	4,601.0500	0.2150		4,606.4239
Unmitigated	1.4696	4.8234	15.5550	0.0455	3.6688	0.0376	3.7064	0.9810	0.0352	1.0161		4,601.0500	4,601.0500	0.2150		4,606.4239

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	647.36	673.88	586.16	1,648,483	1,648,483
Total	647.36	673.88	586.16	1,648,483	1,648,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915
Single Family Housing	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
NaturalGas Unmitigated	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	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
Single Family Housing	4813.04	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Total		**0.0519**	**0.4436**	**0.1888**	**2.8300e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**566.2398**	**566.2398**	**0.0109**	**0.0104**	**569.6047**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	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
Single Family Housing	4.81304	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Total		**0.0519**	**0.4436**	**0.1888**	**2.8300e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**566.2398**	**566.2398**	**0.0109**	**0.0104**	**569.6047**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Unmitigated	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1704	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310		10.1018	10.1018	9.7900e-003		10.3466
Total	**3.2319**	**0.0649**	**5.6224**	**3.0000e-004**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**10.1018**	**10.1018**	**9.7900e-003**	**0.0000**	**10.3466**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1704	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310		10.1018	10.1018	9.7900e-003		10.3466
Total	**3.2319**	**0.0649**	**5.6224**	**3.0000e-004**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**10.1018**	**10.1018**	**9.7900e-003**	**0.0000**	**10.3466**

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/9/2018 10:29 AM

Fairgrounds Drive Subdivision Project

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.20	Acre	1.20	52,272.00	0
Single Family Housing	68.00	Dwelling Unit	7.48	122,400.00	182

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	499.66	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Fairgrounds Drive Subdivision Project. SMAQMD. Adjusted CO2 intensity based on 33% RPS by 2020.

Land Use - Construction of 68 single-family homes on a 8.68-acre site.

Construction Phase - Construction assumed to begin July 2019.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Grading - Assumed that soil would be balanced onsite.

Demolition - 754 tons of pavement to be removed estimated area from Google Earth.

Trips and VMT - Rounded up trips.

Construction Off-road Equipment Mitigation - Standard fugitive dust practices assumed.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% waste diversion consistent with the City's goal and AB 341.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	15.00
tblGrading	AcresOfGrading	7.50	10.00
tblLandUse	LotAcreage	22.08	7.48
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	590.31	499.66
tblTripsAndVMT	HaulingTripNumber	75.00	76.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4126	45.6300	22.9580	0.0440	18.2032	2.3913	20.5945	9.9670	2.2000	12.1670	0.0000	4,359.9808	4,359.9808	1.1958	0.0000	4,387.2787
2020	30.7625	22.8210	20.7887	0.0377	0.5223	1.2404	1.7627	0.1407	1.1731	1.3138	0.0000	3,635.8284	3,635.8284	0.6817	0.0000	3,652.8718
Maximum	**30.7625**	**45.6300**	**22.9580**	**0.0440**	**18.2032**	**2.3913**	**20.5945**	**9.9670**	**2.2000**	**12.1670**	**0.0000**	**4,359.9808**	**4,359.9808**	**1.1958**	**0.0000**	**4,387.2787**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4126	45.6300	22.9580	0.0440	8.2668	2.3913	10.6581	4.5051	2.2000	6.7052	0.0000	4,359.9808	4,359.9808	1.1958	0.0000	4,387.2787
2020	30.7625	22.8210	20.7887	0.0377	0.5223	1.2404	1.7627	0.1407	1.1731	1.3138	0.0000	3,635.8284	3,635.8284	0.6817	0.0000	3,652.8718
Maximum	**30.7625**	**45.6300**	**22.9580**	**0.0440**	**8.2668**	**2.3913**	**10.6581**	**4.5051**	**2.2000**	**6.7052**	**0.0000**	**4,359.9808**	**4,359.9808**	**1.1958**	**0.0000**	**4,387.2787**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.06**	**0.00**	**44.44**	**54.04**	**0.00**	**40.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Energy	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Mobile	1.1081	5.1841	14.3528	0.0410	3.6688	0.0381	3.7069	0.9810	0.0357	1.0166		4,155.4993	4,155.4993	0.2124		4,160.8103
Total	**4.3919**	**5.6926**	**20.1639**	**0.0442**	**3.6688**	**0.1050**	**3.7738**	**0.9810**	**0.1025**	**1.0835**	**0.0000**	**4,731.8409**	**4,731.8409**	**0.2331**	**0.0104**	**4,740.7615**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Energy	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Mobile	1.1081	5.1841	14.3528	0.0410	3.6688	0.0381	3.7069	0.9810	0.0357	1.0166		4,155.4993	4,155.4993	0.2124		4,160.8103
Total	**4.3919**	**5.6926**	**20.1639**	**0.0442**	**3.6688**	**0.1050**	**3.7738**	**0.9810**	**0.1025**	**1.0835**	**0.0000**	**4,731.8409**	**4,731.8409**	**0.2331**	**0.0104**	**4,740.7615**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2019	7/19/2019	5	15	
2	Site Preparation	Site Preparation	7/20/2019	8/2/2019	5	10	
3	Grading	Grading	8/3/2019	8/23/2019	5	15	
4	Trenching	Trenching	8/24/2019	9/6/2019	5	10	
5	Paving	Paving	9/7/2019	10/4/2019	5	20	
6	Building Construction	Building Construction	10/5/2019	8/21/2020	5	230	
7	Architectural Coating	Architectural Coating	6/6/2020	8/21/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.2

Residential Indoor: 247,860; Residential Outdoor: 82,620; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Trenchers	1	8.00	78	0.50
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	0.00	76.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1215	0.0000	1.1215	0.1698	0.0000	0.1698			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**1.1215**	**1.7949**	**2.9164**	**0.1698**	**1.6697**	**1.8395**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.5834	0.4009	4.0000e-003	0.0882	6.7400e-003	0.0949	0.0241	6.4500e-003	0.0306		428.0414	428.0414	0.0264		428.7023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.1148**	**1.6343**	**0.8980**	**5.1600e-003**	**0.2099**	**7.6100e-003**	**0.2175**	**0.0564**	**7.2500e-003**	**0.0637**		**543.0814**	**543.0814**	**0.0301**		**543.8336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5047	0.0000	0.5047	0.0764	0.0000	0.0764			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**0.5047**	**1.7949**	**2.2996**	**0.0764**	**1.6697**	**1.7461**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.5834	0.4009	4.0000e-003	0.0882	6.7400e-003	0.0949	0.0241	6.4500e-003	0.0306		428.0414	428.0414	0.0264		428.7023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.1148**	**1.6343**	**0.8980**	**5.1600e-003**	**0.2099**	**7.6100e-003**	**0.2175**	**0.0564**	**7.2500e-003**	**0.0637**		**543.0814**	**543.0814**	**0.0301**		**543.8336**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**8.1298**	**2.3904**	**10.5202**	**4.4688**	**2.1991**	**6.6679**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

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

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7291	0.0000	6.7291	3.3866	0.0000	3.3866			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.7291**	**1.3974**	**8.1265**	**3.3866**	**1.2856**	**4.6721**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.0690**	**0.0509**	**0.4970**	**1.1600e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**115.0400**	**115.0400**	**3.6500e-003**		**115.1313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0281	0.0000	3.0281	1.5240	0.0000	1.5240			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**3.0281**	**1.3974**	**4.4255**	**1.5240**	**1.2856**	**2.8095**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.0690**	**0.0509**	**0.4970**	**1.1600e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**115.0400**	**115.0400**	**3.6500e-003**		**115.1313**

3.5 Trenching - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1623	11.2880	10.5185	0.0148		0.7384	0.7384		0.6794	0.6794		1,461.7942	1,461.7942	0.4625		1,473.3566
Total	**1.1623**	**11.2880**	**10.5185**	**0.0148**		**0.7384**	**0.7384**		**0.6794**	**0.6794**		**1,461.7942**	**1,461.7942**	**0.4625**		**1,473.3566**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0431	0.0318	0.3106	7.2000e-004	0.0761	5.4000e-004	0.0766	0.0202	5.0000e-004	0.0207		71.9000	71.9000	2.2800e-003		71.9571
Total	**0.0431**	**0.0318**	**0.3106**	**7.2000e-004**	**0.0761**	**5.4000e-004**	**0.0766**	**0.0202**	**5.0000e-004**	**0.0207**		**71.9000**	**71.9000**	**2.2800e-003**		**71.9571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1623	11.2880	10.5185	0.0148		0.7384	0.7384		0.6794	0.6794	0.0000	1,461.7942	1,461.7942	0.4625		1,473.3566
Total	**1.1623**	**11.2880**	**10.5185**	**0.0148**		**0.7384**	**0.7384**		**0.6794**	**0.6794**	**0.0000**	**1,461.7942**	**1,461.7942**	**0.4625**		**1,473.3566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0431	0.0318	0.3106	7.2000e-004	0.0761	5.4000e-004	0.0766	0.0202	5.0000e-004	0.0207		71.9000	71.9000	2.2800e-003		71.9571
Total	**0.0431**	**0.0318**	**0.3106**	**7.2000e-004**	**0.0761**	**5.4000e-004**	**0.0766**	**0.0202**	**5.0000e-004**	**0.0207**		**71.9000**	**71.9000**	**2.2800e-003**		**71.9571**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6116**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.0690**	**0.0509**	**0.4970**	**1.1600e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**115.0400**	**115.0400**	**3.6500e-003**		**115.1313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.1572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6116**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0509	0.4970	1.1600e-003	0.1217	8.7000e-004	0.1226	0.0323	8.0000e-004	0.0331		115.0400	115.0400	3.6500e-003		115.1313
Total	**0.0690**	**0.0509**	**0.4970**	**1.1600e-003**	**0.1217**	**8.7000e-004**	**0.1226**	**0.0323**	**8.0000e-004**	**0.0331**		**115.0400**	**115.0400**	**3.6500e-003**		**115.1313**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0796	1.9633	0.6509	3.9100e-003	0.0963	0.0142	0.1105	0.0277	0.0136	0.0413		413.7373	413.7373	0.0276		414.4282
Worker	0.1984	0.1464	1.4289	3.3200e-003	0.3499	2.4900e-003	0.3524	0.0928	2.3000e-003	0.0951		330.7401	330.7401	0.0105		331.0025
Total	**0.2780**	**2.1097**	**2.0799**	**7.2300e-003**	**0.4462**	**0.0167**	**0.4629**	**0.1205**	**0.0159**	**0.1364**		**744.4774**	**744.4774**	**0.0381**		**745.4307**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0796	1.9633	0.6509	3.9100e-003	0.0963	0.0142	0.1105	0.0277	0.0136	0.0413		413.7373	413.7373	0.0276		414.4282
Worker	0.1984	0.1464	1.4289	3.3200e-003	0.3499	2.4900e-003	0.3524	0.0928	2.3000e-003	0.0951		330.7401	330.7401	0.0105		331.0025
Total	**0.2780**	**2.1097**	**2.0799**	**7.2300e-003**	**0.4462**	**0.0167**	**0.4629**	**0.1205**	**0.0159**	**0.1364**		**744.4774**	**744.4774**	**0.0381**		**745.4307**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	1.7928	0.5432	3.8800e-003	0.0963	9.4700e-003	0.1058	0.0277	9.0500e-003	0.0368		411.0597	411.0597	0.0259		411.7064
Worker	0.1825	0.1301	1.2860	3.2200e-003	0.3499	2.4300e-003	0.3524	0.0928	2.2400e-003	0.0951		320.5687	320.5687	9.2200e-003		320.7991
Total	**0.2461**	**1.9228**	**1.8292**	**7.1000e-003**	**0.4462**	**0.0119**	**0.4581**	**0.1205**	**0.0113**	**0.1318**		**731.6284**	**731.6284**	**0.0351**		**732.5055**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	1.7928	0.5432	3.8800e-003	0.0963	9.4700e-003	0.1058	0.0277	9.0500e-003	0.0368		411.0597	411.0597	0.0259		411.7064
Worker	0.1825	0.1301	1.2860	3.2200e-003	0.3499	2.4300e-003	0.3524	0.0928	2.2400e-003	0.0951		320.5687	320.5687	9.2200e-003		320.7991
Total	**0.2461**	**1.9228**	**1.8292**	**7.1000e-003**	**0.4462**	**0.0119**	**0.4581**	**0.1205**	**0.0113**	**0.1318**		**731.6284**	**731.6284**	**0.0351**		**732.5055**

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**28.3569**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0397	0.0283	0.2796	7.0000e-004	0.0761	5.3000e-004	0.0766	0.0202	4.9000e-004	0.0207		69.6889	69.6889	2.0000e-003		69.7389
Total	**0.0397**	**0.0283**	**0.2796**	**7.0000e-004**	**0.0761**	**5.3000e-004**	**0.0766**	**0.0202**	**4.9000e-004**	**0.0207**		**69.6889**	**69.6889**	**2.0000e-003**		**69.7389**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**28.3569**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0397	0.0283	0.2796	7.0000e-004	0.0761	5.3000e-004	0.0766	0.0202	4.9000e-004	0.0207		69.6889	69.6889	2.0000e-003		69.7389
Total	**0.0397**	**0.0283**	**0.2796**	**7.0000e-004**	**0.0761**	**5.3000e-004**	**0.0766**	**0.0202**	**4.9000e-004**	**0.0207**		**69.6889**	**69.6889**	**2.0000e-003**		**69.7389**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1081	5.1841	14.3528	0.0410	3.6688	0.0381	3.7069	0.9810	0.0357	1.0166		4,155.4993	4,155.4993	0.2124		4,160.8103
Unmitigated	1.1081	5.1841	14.3528	0.0410	3.6688	0.0381	3.7069	0.9810	0.0357	1.0166		4,155.4993	4,155.4993	0.2124		4,160.8103

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	647.36	673.88	586.16	1,648,483	1,648,483
Total	647.36	673.88	586.16	1,648,483	1,648,483

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915
Single Family Housing	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
NaturalGas Unmitigated	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	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
Single Family Housing	4813.04	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Total		**0.0519**	**0.4436**	**0.1888**	**2.8300e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**566.2398**	**566.2398**	**0.0109**	**0.0104**	**569.6047**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	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
Single Family Housing	4.81304	0.0519	0.4436	0.1888	2.8300e-003		0.0359	0.0359		0.0359	0.0359		566.2398	566.2398	0.0109	0.0104	569.6047
Total		**0.0519**	**0.4436**	**0.1888**	**2.8300e-003**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**566.2398**	**566.2398**	**0.0109**	**0.0104**	**569.6047**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466
Unmitigated	3.2319	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310	0.0000	10.1018	10.1018	9.7900e-003	0.0000	10.3466

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1704	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310		10.1018	10.1018	9.7900e-003		10.3466
Total	**3.2319**	**0.0649**	**5.6224**	**3.0000e-004**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**10.1018**	**10.1018**	**9.7900e-003**	**0.0000**	**10.3466**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1704	0.0649	5.6224	3.0000e-004		0.0310	0.0310		0.0310	0.0310		10.1018	10.1018	9.7900e-003		10.3466
Total	**3.2319**	**0.0649**	**5.6224**	**3.0000e-004**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**10.1018**	**10.1018**	**9.7900e-003**	**0.0000**	**10.3466**

APPENDIX B

Biological Constraints Report

DUDEK

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November 12, 2018 11482

Ron Bess
City of Sacramento
300 Richards Boulevard, 3rd floor
Sacramento, California 95811

Subject: Biological Constraints Report for the Proposed Fairgrounds Subdivision Project in Sacramento, Sacramento County, California

Dear Mr. Bess:

At the request of the City of Sacramento Community Development Department Environmental Planning Services, Dudek has prepared this letter report documenting the methodology and results of a biological constraints analysis performed for the proposed Fairgrounds Subdivision Project (Project), located in the City of Sacramento, Sacramento County, California (Figure 1). Specifically, the analysis focused on identifying biological resources, particularly those considered of special status by local, state, and/or federal resource agencies, within or immediately adjacent to the Project site.

PROJECT LOCATION

The approximately 8-acre site is located on Fairgrounds Avenue just north of Broadway Street. The center of the Project site corresponds to 38°, 32', 56.14" north latitude and 121°, 26', 32.46" west longitude, in township 8 north, range 5 east, section 21 of the "Sacramento East, California" U.S. Geological Survey 7.5-minute quadrangle.

METHODS

Literature Review

For this report, special-status plant and wildlife species are those that are (1) listed, proposed for listing, or candidates for listing under the federal Endangered Species Act as threatened or endangered; (2) listed or candidates for listing under the California Endangered Species Act as threatened or endangered; (3) a state fully-protected species; (4) a California Department of Fish and Wildlife (CDFW) Species of Special Concern; or (5) a species listed on the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants with a California Rare Plant Rank of 1B or 2B.

Special-status vegetation communities are those communities identified as high priority for inventory in the List of Vegetation Alliances and Associations (CDFG 2010) with a state rarity ranking of S1, S2, or S3. Special-status vegetation communities also include wetland and riparian communities of which impacts to could trigger the need for regulatory permits pursuant to the federal Clean Water Act, Regional Water Quality Control Board, and/or the California Fish and Game Code.

Special-status species and vegetation community resources present or potentially present on the Project site were identified through a literature search using the following sources: the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) Trust Resource Report (USFWS 2018); the CDFW California Natural Diversity Database (CNDDB) (CDFW 2018); and the CNPS online Inventory of Rare, Threatened, and Endangered Plants (CNPS 2018). Searches were completed for the following U.S. Geological Survey 7.5-minute quadrangles: Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove.

Dudek also reviewed historic aerial photography of the project site dating back to 1952 (Nationwide 2018).

Field Reconnaissance

Dudek biologist Paul Keating conducted a reconnaissance-level site assessment on October 23, 2018. Because the focus of the site visit and this report was to identify potential constraints to future development of the site posed by onsite biological resources and/or the potential of sensitive biological resources to occur, no focused presence/absence surveys for special-status plant or wildlife species were conducted. However, all observed native and naturalized plant species as well as any wildlife species encountered within the Project site during the site visit were identified and recorded. The potential for special-status plant and wildlife species to occur within the Project site was evaluated based on the vegetation communities and soils present, the results of the database review discussed above, and on known life history requirements and geographic ranges of special-status species known to occur in the region.

Natural vegetation communities were mapped directly in the field using the Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009) and the List of Vegetation Alliances and Associations (CDFG 2010). Ornamental and landscaped vegetation, as well as non-vegetative land cover types, were also mapped in the field.

Latin and common names for plant species with a California Rare Plant Rank follow the CNPS Inventory of Rare and Endangered Plants (CNPS 2018). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2018), and common names follow the United States Department of Agriculture's Natural Resources Conservation Service Plants Database (USDA 2017).

Dudek geographic information systems (GIS) specialists mapped observed biological resources into GIS and provided figures using ArcGIS software.

RESULTS

Site Description

The Project site is relatively flat with an elevation of approximately 35 feet above mean sea level. Historically, the site has been altered by grading activities associated with development. The site is primarily comprised of ornamental landscaping interspersed with parking lots. The Project site is entirely surrounded by existing high and medium density housing development (Figure 1).

Soils

One soil type is mapped on the project site: San Joaquin Urban land complex, 0%–2% slopes, MLRA 14 (Figure 2). The San Joaquin Urban land complex consists of several soil types intermixed on such a fine scale that they are not easily discernable. This soil complex is generally comprised of a moderately drained alluvium derived from granitic rock, typically used for cropland and livestock grazing. The area is developed, however, and much of the area likely contains Xerarents that are the result of past deposition of fill materials (USDA 2018).

Vegetation Communities and Land Covers

At the time of the 2018 site visit, two non-natural land cover types were classified for the Project site: the non-natural land cover types included developed land (1.5 acres) and ornamental plantings (6.32 acres) (Figure 4). No natural vegetation communities were observed during the site visit. These land cover types are described in further detail in the following text and representative photographs are included as Attachment 1.

Developed Land

Although not recognized by the Natural Communities List (CDFG 2010), "developed land" refers to areas that have been constructed on or disturbed so severely that native vegetation is no longer supported. Developed land typically includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials.

This land cover type on the Project site is the direct result of extensive anthropogenic disturbance, including grading, paving, and construction of shade structures. Currently, the site supports parking lots and associated ornamental landscaping. This land cover type does not function as suitable habitat for special-status plant or wildlife species.

Ornamental Plantings

"Ornamental Plantings" refers to areas where non-native ornamental species and landscaping have been installed. This land cover type is not recognized by the Natural Communities List (CDFG 2010).

Within the Project site, ornamental plantings consists largely of Kentucky blue grass (*Poa pratensis*) and London planetree (*Platanus ×hispanica*). This land cover type occurs throughout the majority of the Project site. These areas are typically irrigated and maintained as part of the built environment.

Waters of the United States

Waters of the United States, including wetlands, are special habitats regulated by the U.S. Army Corps of Engineers (ACOE), and other state and federal agencies, in accordance with the federal Clean Water Act. Some isolated features that may not fall under the jurisdiction of the ACOE would potentially fall under the jurisdiction of the Regional Water Quality Control Board as waters of the state. Determining the extent of waters of the United States and waters of the state on a given site requires that a wetland delineation be prepared according to standards issued by the ACOE and submitted to the ACOE for review and verification.

No formal wetland delineation has been prepared for the Project site. Waters of the United States are not anticipated to be present on the site. Potential sources of hydrology on the site are precipitation and irrigation of the ornamental landscaping. Topographic depressions present on site where water could potentially pool contain drains preventing the accumulation of standing water.

Floral Diversity

A total of 13 species of plants, 2 native (15%) and 11 non-native (85%), was recorded on the site (Attachment 2). The relatively low diversity of native plants and the dominance of non-native, weedy species reflects the Project site's developed and disturbed environment and its proximity to adjacent developed areas.

Common Wildlife

Few species of wildlife were recorded within and adjacent to the Project site during the site visit (Attachment 3). Given the highly disturbed nature of the site and the extensive amount of development surrounding the site and in the site vicinity, wildlife use is expected to be limited to common species adapted to urban settings and human disturbance such as raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and wild turkey (*Meleagris gallopavo*), given the proximity to the American river.

Special-Status Plant Species

A total of 17 special-status plant species are known to occur within the Project quadrangle or eight surrounding quadrangles (CDFW 2018). No special-status plant species have been previously documented within the Project site (CDFW 2018; Figure 3). Of the 17 species known from the region, all were removed from consideration based on lack of suitable soils or habitat on the site, or because the Project site is outside of the known elevation or geographic range for the species (Attachment 4). Due to the highly disturbed nature of the habitat present on the Project site, special status plant species are not expected to occur.

Special-Status Wildlife Species

A total of 26 special-status wildlife species are known to occur within the Project quadrangle or eight surrounding quadrangles (CDFW 2018). No special-status wildlife species are known to occur within the Project site or in the immediate Project site vicinity (Figure 3). Of these, 24 were removed from consideration based on lack of suitable habitat or because the site is outside of the known geographic or elevation range for the species (Attachment 4). These species are not discussed further in this document. There were many trees present onsite which may provide potential nesting habitat for sensitive bird species such as Swainson's hawk (*Buteo swainsoni*) and Coopers hawk (*Accipiter cooperii*), the site is heavily disturbed, surrounded by high density development, and lacks any foraging habitat such as extensive grassland and agricultural fields. Furthermore, no nests were observed during the 2018 site visit. Given the highly disturbed nature

of the site along with the extensive level of development surrounding the site, the potential for these species to occur is relatively low.

CONSTRAINTS ANALYSIS

This section addresses potential constraints on future development of the Project site posed by special-status biological resources that were either observed during the site visit or that could potentially occur on the site in the future. Most special-status biological resources are protected or otherwise regulated by state and/or federal resource agencies; adverse impacts on these resources, should they occur, could potentially conflict with such regulations and also possibly be considered a significant impact under CEQA. For the purposes of this analysis, it is assumed that the entire Project site will be disturbed under the proposed new development.

Special-Status Plants

The ornamental and developed land cover types on site are not considered suitable habitat for special-status plant species known to occur in the region. Because of the high degree of past and continued anthropogenic disturbance at this developed site and the fact that the site is entirely surrounded by development, special-status plant species are not expected to occur at the Project site.

Future development would not be constrained by the potential for special-status plant species occurring on the site.

Special-Status Wildlife

The landscaped areas and potential nest trees within the project site provide nesting habitat for native birds protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Destruction or other adverse impacts to active nests with eggs or chicks during construction could be considered a violation of these regulations and be considered potentially significant impacts under CEQA. Implementation of the following recommended avoidance measures will minimize the potential for Project constraints by ensuring that no impacts to nesting birds occur due to implementation of the Project.

BIO-1: Nesting Birds

Project construction could result in impacts to nesting birds, including the loss of active nests with eggs or fledglings if vegetation clearing and ground-disturbing activities occur during the nesting season (generally February 1 through August 30, depending on the species). All native migratory

bird species are protected by the federal Migratory Bird Treaty Act; active nests of all birds are protected under California Fish and Game Code 3503, and individual raptors (and their active nests) are protected under 3503.5. A preconstruction nesting bird survey should be conducted by a qualified biologist no sooner than 10 days prior to construction and ground-disturbance activities, if such activities will occur during the nesting season, to determine if any native birds are nesting on or immediately adjacent to the site (including a 250-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer will be determined and flagged by the qualified biologist based on species, location, and planned construction activity. These nests would be avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist. Dudek also recommends removing any habitat (i.e., trees) outside of the breeding bird season.

Aquatic Habitats and Jurisdictional Wetlands and Waters

No formal wetland delineation has been prepared for the project site. Given the lack of wetland indicators and the developed storm water drain system already present on site, no waters of the United States or waters of the state are predicted, a formal wetland delineation and verification by the ACOE is not anticipated to be required.

Wildlife Corridors and Nursery Sites

Due to the developed nature of the surrounding area, the project site does not function as a wildlife corridor. BIO-1 will ensure no impacts occur to potentially nesting bird species resulting from project implementation. As a result, implementation of the proposed project would not result in impacts to these resources.

If you have any questions or concerns regarding the content of this letter report, please contact me at 760.334.1592 or pkeating@dudek.com.

Sincerely,

Paul Keating
Biologist

Att.: Figures
Figure 1 – Project Location

Figure 2 – Soils
Figure 3 –CNDDB 2-Mile Radius Map
Figure 4 – Vegetation Communities and Land Cover Types

Att. 1 – Representative Site Photographs
Att. 2 – Vascular Plant Species Observed On Site
Att. 3 – Wildlife Species Observed On Site
Att. 4– Table of Potentially Occurring Species

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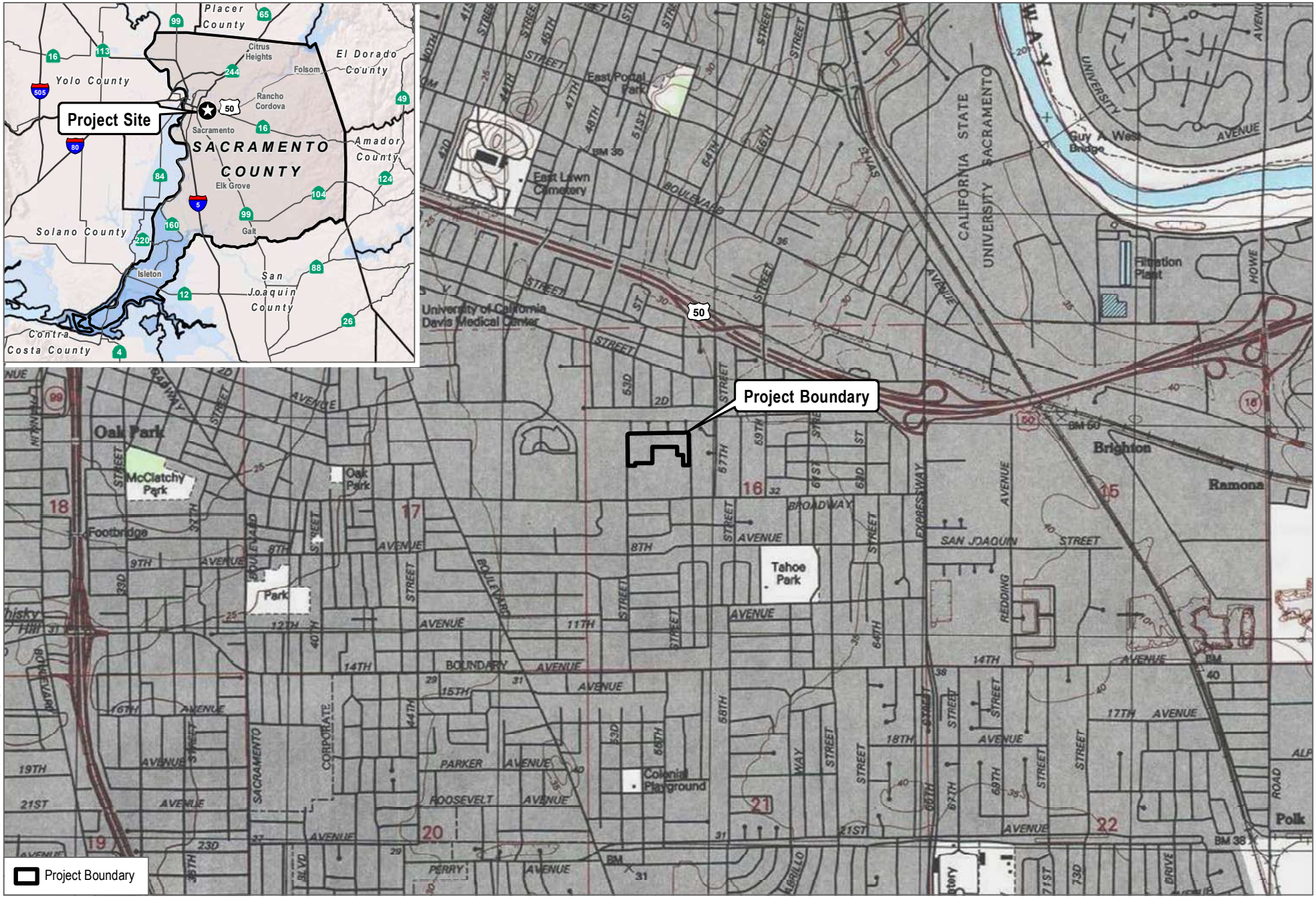
FIGURES



SOURCE: USGS 7.5 Minute Series Sacramento East Quadrangle

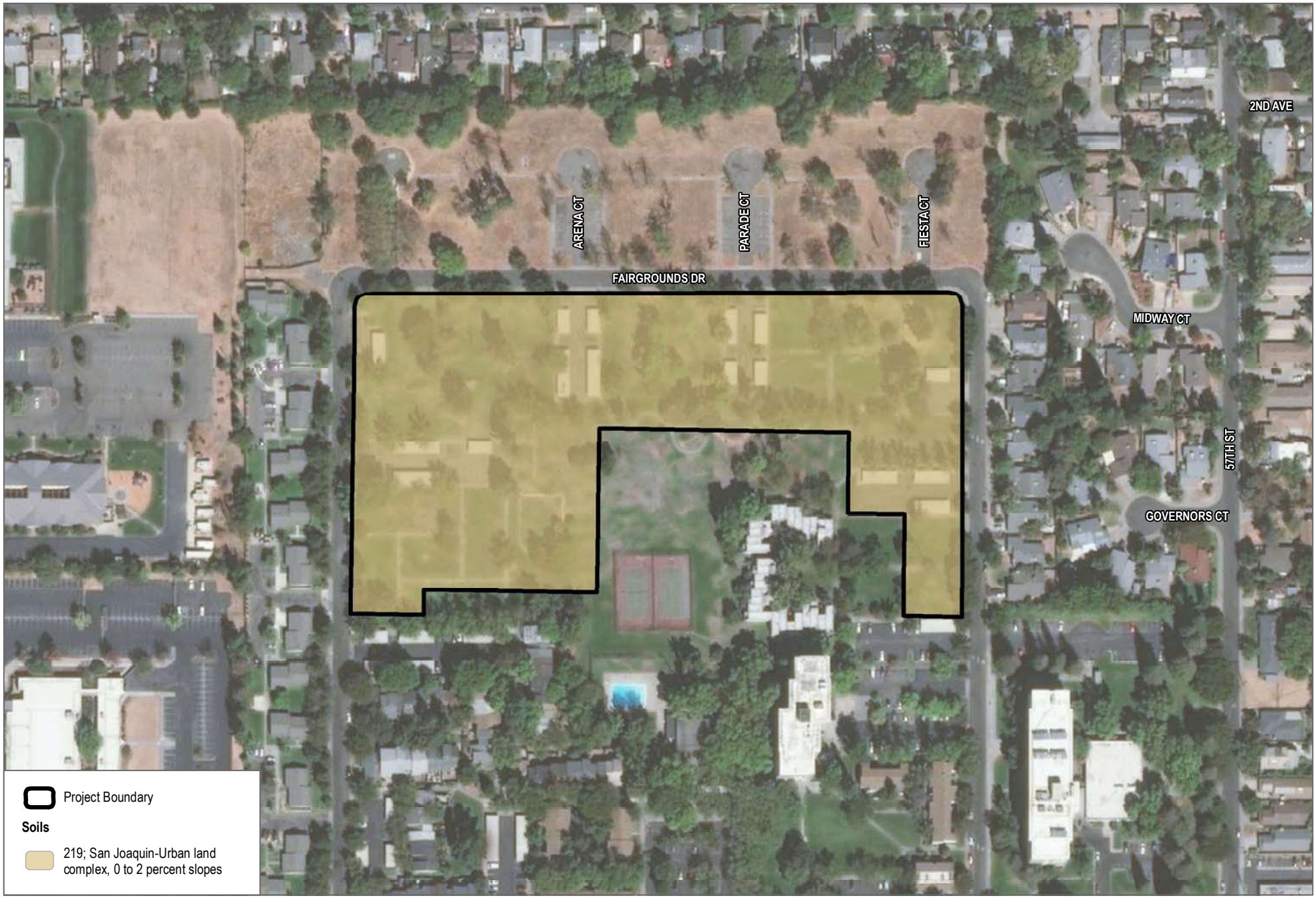
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Fairgrounds Drive Subdivision Project



SOURCE: USDA 2009, DigitalGlobe 2016

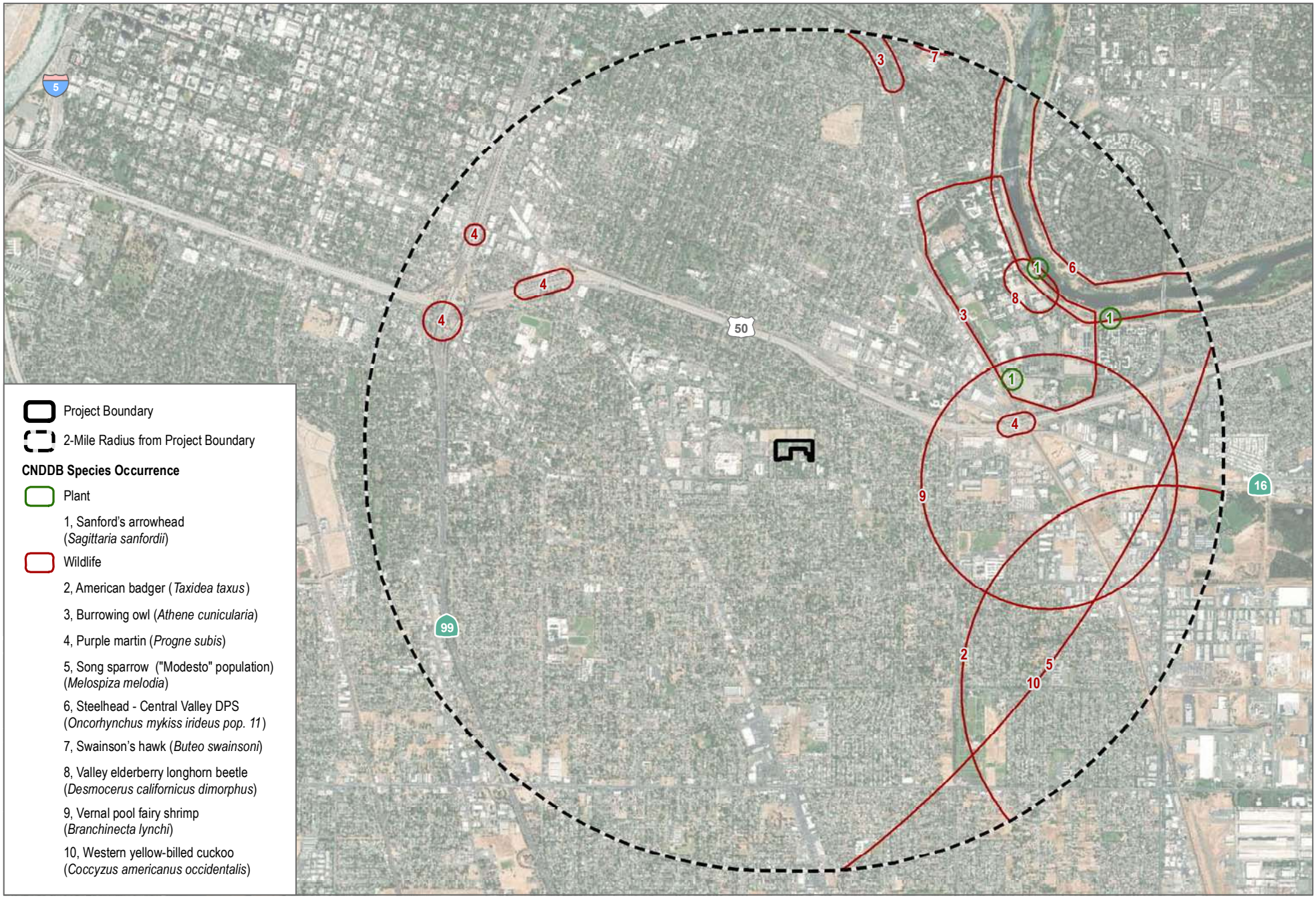
DUDEK

0 100 200 Feet

FIGURE 2

Project Soils

Fairgrounds Drive Subdivision Project



SOURCE: CDFW 2018, DigitalGlobe 2016

DUDEK

FIGURE 3

CNDDB Occurrences Within a 2-Mile Radius

Fairgrounds Drive Subdivision Project

SOURCE: DigitalGlobe 2016

DUDEK

0 100 200 Feet

FIGURE 4

Vegetation Communities and Land Cover Types

Fairgrounds Drive Subdivision Project

ATTACHMENT 1

Representative Site Photographs

Attachment 1
Photo Log October 23, 2018

	
Photo 1. Representative site photo looking South from Fairgrounds drive	Photo 2. ViewDeveloped parking structure
	
Photo 3. Looking south, across depression feature	Photo 4. Drain located within depression feature

ATTACHMENT 2

Vascular Plant Species Observed On Site

PLANT COMPENDIUM

VASCULAR SPECIES

ASTERACEAE—Sunflower Family
- Taraxacum officinale—common dandelion*

FABACEAE—Legume Family
- Gleditsia triacanthos—honeylocust*
- Trifolium hirtum—rose clover*

FAGACEAE—Oak Family
- Quercus lobata—valley oak

LINACEAE—Flax Family
- Liquidambar styraciflua—sweetgum*

OLEACEAE—Olive Family
- Fraxinus velutina—velvet ash

PLANTAGINACEAE—Plantain Family
- Plantago major—common plantain*

PLATANACEAE—Plane Tree, Sycamore Family
- Platanus ×hispanica—London planetree*

SAPINDACEAE—Soapberry Family
- Acer saccharinum—silver maple*

MONOCOTS

VASCULAR SPECIES

ARECACEAE—Palm Family
- Phoenix canariensis—Canary Island date palm*
- Washingtonia robusta—Washington fan palm*

POACEAE—Grass Family
- Cynodon dactylon—Bermudagrass*
- Paspalum dilatatum—dallisgrass*
- Poa pratensis—Kentucky blue grass*

ATTACHMENT 3

Wildlife Species Observed On Site

ANIMAL COMPENDIUM

BIRD

FINCHES
FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES
Haemorhous mexicanus—house finch
JAYS, MAGPIES & CROWS
CORVIDAE—CROWS & JAYS
Corvus brachyrhynchos—American crow
PIGEONS & DOVES
COLUMBIDAE—PIGEONS & DOVES
Zenaida macroura—mourning dove

MAMMAL

SQUIRRELS
SCIURIDAE—SQUIRRELS
Sciurus niger—eastern fox squirrel*

ATTACHMENT 4

Table of Potentially Occurring Species

APPENDIX 3

Special-Status Plant Species with Known or Potential Occurrence in the Project Vicinity

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
		Plants		
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	None/None/1B.1	Annual herb found in valley and foothill grassland (mesic). Elevation 95–750 meters. Blooms Mar–May.	**Not expected to occur.** No suitable habitat present.
bristly sedge	*Carex comosa*	None/None/2B.1	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland. Sometimes found in serpentine soils. Elevation 90-155 meters. Blooms Mar-Jun.	**Not expected to occur.** No suitable habitat present.
pappose tarplant	*Centromadia parryi ssp. parryi*	None/None/1B.2	Annual herb found in marshes and swamps (lake margins), vernal pools. Usually clay soils. Elevation 10-2,375 meters. Blooms Apr-Aug.	**Not expected to occur.** No suitable habitat present.
Peruvian dodder	*Cuscuta obtusiflora var. glandulosa*	None/None/2B.2	Annual herb found in mesic valley and foothill grassland habitats, vernal pools. Elevation 1-445 meters. Blooms Mar-May.	**Not expected to occur**. No suitable vernal pool or mesic habitat present
dwarf downingia	*Downingia pusilla*	None/None/2B.2	Annual herb found in vernal pools. Blooms Apr–June. Elevation 3–2,887 meters.	**Not expected to occur.** No suitable vernal pool habitat present.
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	None/SE/1B.2	Annual herb found in vernal pools, often in acidic soils. Elevation 20-333 meters. Blooms Apr-May.	**Not expected to occur.** No suitable vernal pool habitat or acidic soils present.
woolly rose-mallow	*Hibiscus lasiocarpos var. occidentalis*	None/None/1B.2	Annual herb found in vernal pools. Elevation 30-100 meters. Blooms Apr-Jul.	**Not expected to occur.** No suitable habitat present.

APPENDIX 3

Special-Status Plant Species with Known or Potential Occurrence in the Project Vicinity

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
Northern California black walnut	*Astragalus tener var. ferrisiae*	None/None/1B.1	Perennial rhizomatous emergent herb found in marshes and swamps. Elevation 0-650 meters. Blooms May-Oct.	**Not expected to occur.** No suitable habitat present.
Ahart's dwarf rush	*Carex comosa*	None/None/1B.2	Annual herb found in valley and foothill grassland (mesic). Elevation 95–750 meters. Blooms Mar–May.	**Not expected to occur.** No suitable habitat present.
legenere	*Centromadia parryi ssp. parryi*	None/None/1B.1	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland. Sometimes found in serpentine soils. Elevation 90-155 meters. Blooms Mar-Jun.	**Not expected to occur.** No suitable habitat present.
Heckard's pepper-grass	*Cuscuta obtusiflora var. glandulosa*	None/None/1B.2	Annual herb found in marshes and swamps (lake margins), vernal pools. Usually clay soils. Elevation 10-2,375 meters. Blooms Apr-Aug.	**Not expected to occur.** No suitable habitat present.
Mason's lilaeopsis	*Downingia pusilla*	None/SR/1B.1	Annual herb found in mesic valley and foothill grassland habitats, vernal pools. Elevation 1-445 meters. Blooms Mar-May.	**Not expected to occur.** No suitable habitat present.
slender Orcutt grass	*Gratiola heterosepala*	FT/SE/1B.1	Annual herb found in vernal pools. Blooms Apr–June. Elevation 3–2,887 meters.	**Not expected to occur.** No suitable habitat present.
Sacramento Orcutt grass	*Hibiscus lasiocarpos var. occidentalis*	FE/SE/1B.1	Annual herb found in vernal pools, often in acidic soils. Elevation 20-333 meters. Blooms Apr-May.	**Not expected to occur.** No suitable habitat present.

APPENDIX 3

Special-Status Plant Species with Known or Potential Occurrence in the Project Vicinity

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
Sanford's arrowhead	*Juglans hindsii*	None/None/1B.2	Annual herb found in vernal pools. Elevation 30-100 meters. Blooms Apr-Jul.	**Not expected to occur.** No suitable habitat present.
Suisun Marsh aster	*Juncus leiospermus var. ahartii*	None/None/1B.2	Perennial rhizomatous emergent herb found in marshes and swamps. Elevation 0-650 meters. Blooms May-Oct.	**Not expected to occur.** No suitable habitat present.
saline clover	*Legenere limosa*	None/None/1B.2	Annual herb found in vernal pools (often gravelly). Elevation 35-1,760 meters. Blooms May-Sep.	**Not expected to occur.** No suitable habitat present.

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
			Invertebrates	
valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Threatened/None	The valley elderberry longhorn beetle is completely dependent on its host plant, elderberry (*Sambucus nigra* ssp. *cerulea*), which occurs in riparian and other woodland communities in California's Central Valley and the associated foothills. Female beetles lay their eggs in crevices on the stems or on the leaves of living elderberry plants. When the eggs hatch, larvae bore into the stems. The larval stages last for one to two years. The fifth instar larvae create emergence holes in the stems and then plug the holes and remain in the stems through pupation. Adults emerge through the emergence holes from late March through June. The short-lived adult beetles forage on leaves and flowers of elderberry shrubs.	**Not expected to occur.** No elderberry shrubs present within the project area.
vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened/None	Vernal pool fairy shrimp is adapted to seasonally inundated features and occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary.	**Not expected to occur.** No suitable aquatic habitat within the project area.

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
vernal pool tadpole shrimp	*Lepidurus packardi*	Endangered/None	Vernal pool tadpole shrimp is associated with low-alkalinity seasonal pools in unplowed grasslands. The vernal pool tadpole shrimp is found only in ephemeral freshwater habitats, including alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales, and other seasonal wetlands in California. Suitable vernal pools and seasonal swales are generally underlain by hardpan or sandstone. This species inhabits freshwater habitats containing clear to highly turbid water, with water temperatures ranging from 50 to 84 degrees Fahrenheit and pH ranging from 6.2 to 8.5.	**Not expected to occur.** No suitable aquatic habitat within the project area.
Fish				
Sacramento perch	*Archoplites interruptus (within native range only)*	None/SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley	**Not expected to occur.** No suitable aquatic habitat present.
Central Valley steelhead	*Oncorhynchus mykiss irideus* (NMFS)	Threatened/None	Central Valley steelhead spawn downstream of dams on every major tributary within the Sacramento and San Joaquin River systems. Regardless of life history strategy, for the first year or two of life rainbow trout and steelhead are found in cool, clear, fast-flowing permanent streams and rivers where riffles predominate over pools, there is ample cover from riparian vegetation or undercut banks, and invertebrate life is diverse and abundant.	**Not expected to occur.** No suitable aquatic habitat present.
chinook salmon	*Oncorhynchus tshawytscha*	Varies by seasonal run.	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries	**Not expected to occur.** No suitable aquatic habitat present.

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
longfin smelt	*Spirinchus thaleichthys*	FC/ST, SSC	Aquatic, estuary	**Not expected to occur.** No suitable aquatic habitat present.
Amphibians and Reptiles				
giant gartersnake	*Thamnophis gigas*	Threatened/Threatened	Giant gartersnake is found in isolated populations restricted to the Central Valley of California. It is found in freshwater marsh and wetlands, irrigation ditches, low gradient streams and rice fields containing emergent vegetation. Adjacent upland habitat is necessary for cover and aestivation.	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
western pond turtle	*Emys marmorata*	None/SSC	Western pond turtles use both aquatic and terrestrial habitats. They are found in rivers, lakes, streams, ponds, wetlands, vernal pools, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters.	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
western spadefoot	*Spea hammondii*	None/SSC	Western spadefoot inhabits areas with slightly moist, friable soils in mostly treeless habitats. Usually absent from narrow canyons and highly mesic habitats. Requires rain pools with little to no vegetation for spawning.	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
Birds				
Cooper's hawk	*Accipiter cooperii (nesting)*	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	**Moderate potential to occur.** Nearby CNDDB occurrences and suitable nest trees present.
tricolored blackbird	*Agelaius tricolor (nesting colony)*	BCC/PSE, SSC	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
golden eagle	*Aquila chrysaetos (nesting & wintering)*	BCC/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
burrowing owl	*Athene cunicularia (burrow sites & some wintering sites)*	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	**Low potential to occur**. CNDDB occurrence within 2 miles; however, no burrows were present during 2018 survey.
ferruginous hawk	*Buteo regalis (wintering)*	BCC/WL	Winters and forages in open, dry country, grasslands, open fields, agriculture	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
Swainson's hawk	*Buteo swainsoni (nesting)*	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	**Moderate potential to occur.** Nearby CNDDB occurrences and suitable nest trees present.
western yellow-billed cuckoo	*Coccyzus americanus occidentalis (nesting)*	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	**Not expected to occur**. No suitable habitat present nearby
white-tailed kite	*Elanus leucurus (nesting)*	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
merlin	*Falco columbarius (wintering)*	None/WL	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
California black rail	*Laterallus jamaicensis coturniculus*	BCC/ST, FP	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
double-crested cormorant	*Phalacrocorax auritus (nesting colony)*	None/WL	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
purple martin	*Progne subis (nesting)*	None/SSC	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
bank swallow	*Riparia riparia (nesting)*	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
least Bell's vireo	*Vireo bellii pusillus (nesting)*	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
yellow-headed blackbird	*Xanthocephalus xanthocephalus (nesting)*	None/SSC	Nests in marshes with tall emergent vegetation, often along borders of lakes and ponds; forages in emergent wetlands, open areas, croplands, and muddy shores of lacustrine habitat	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.
Mammals				

ATTACHMENT 3
Special-Status Wildlife Species with Known or Potential Occurrence

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
American badger	*Taxidea taxus*	None/SSC	American badger is most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils. Will dig burrows for cover. Will reuse burrows occasionally but also may dig new burrows each night in summer. Diet consists of rodents, small mammals, reptiles, insects, birds and carrion.	**Not expected to occur**. Suitable habitat for this species is not present within or adjacent to the project area.

APPENDIX C

Arborist Report

ARBORIST REPORT
AND
TREE INVENTORY SUMMARY

FAIRGROUNDS DRIVE PROJECT SITE
City of Sacramento, California

Prepared for:

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Phillippi Engineering, Inc.
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Prepared by:

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International Society of Arboriculture
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SIERRA NEVADA ARBORISTS
7425 W 4th Street
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June 25, 2018

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COPYRIGHT STATEMENT

This consultant's report, dated June 25, 2018, is for the exclusive and confidential use of Phillippi Engineering concerning potential development of the Fairgrounds Drive Project Site, located in the City of Sacramento, California. Any use of this report, the accompanying appendices, or portions thereof, other than for project review and approval by appropriate governmental authorities, shall be subject to and require the written permission of Sierra Nevada Arborists. Unauthorized modification, distribution and/or use of this report, including the data or portions thereof contained within the accompanying appendices, is strictly prohibited.

QUALIFICATION STATEMENT

Sierra Nevada Arborists is a fully insured, Rio Linda-based arboriculture consulting firm founded in January of 1998 by its Principal, Edwin E. Stirtz. Mr. Stirtz is an ISA Certified Arborist and is ISA Tree Risk Assessment Qualified. He is a member of the American Society of Consulting Arborists and International Society of Arboriculture. Mr. Stirtz possesses in excess of 40 years of experience in arboriculture, forestry, and horticulture, both maintenance and construction, and has spent the last 29 years as a consultant focusing on preservation and compliance with environmental regulations in the Sacramento and surrounding regions.

INTRODUCTION

Sierra Nevada Arborists is pleased to present this Arborist Report and Tree Inventory Summary for the trees located within and/or overhanging the property located at the Fairgrounds Drive Project Site in the City of Sacramento, California. This Arborist Report and Tree Inventory Summary memorializes tree data obtained by Edwin E. Stirtz, ISA Certified Arborist WE-0510A, at the time of field reconnaissance and inventory efforts on June 14, 2018.

SCOPE OF INVENTORY EFFORT

The City of Sacramento Tree Preservation Ordinance No. 2016-0026, Section 4, Chapter 12.56, which was adopted on August 4, 2016, regulates the pruning and/or removal of both City Trees and Private Protected Trees and the encroachment of construction activities within their driplines. The City of Sacramento Tree Protection Ordinance defines a "City Tree" as any tree the trunk of which, when measured 4.5 feet above ground, is partially or completely located in a city park, on real property the city owns in fee, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley. A "Private protected tree" is defined as:

A. A tree that is designated by city council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property;

B. Any native Valley Oak (Quercus lobata), Blue Oak (Quercus douglasii), Interior Live Oak (Quercus wislizenii), Coast Live Oak (Quercus agrifolia), California Buckeye (Aesculus californica), or California Sycamore (Platanus racemosa), that has a DSH of 12 inches or more, and is located on private property;

C. A tree that has a DSH of 24 inches or more located on private property that:
   1. is an undeveloped lot; or
   2. does not include any single unit or duplex dwellings; or

D. A tree that has a DSH of 32 inches or more located on private property that includes any single unit or duplex dwellings.

METHODOLOGY

During field reconnaissance and inventory efforts, Edwin E. Stirtz of Sierra Nevada Arborists conducted a visual review from ground level of the trees within and/or overhanging the selected lots within the project area. The trees which met the defined criteria were identified in the field by affixing round tags with blue flagging to the tree trunks. The tree numbers utilized in this report and accompanying Tree Inventory Summary correspond to the tree tags which were affixed to the trees in the field, and those tree numbers or grouping of numbers

were rough-plotted on the attached Tree Inventory Field Exhibit so that the precise vertical and horizontal location of the trees may be surveyed in the field by a licensed land surveyor and data for the trees (i.e. tree number, diameter, dripline and protected root zone radii) may be properly depicted on future development plans and Tree Location Exhibit.

At the time of field identification and inventory efforts specific data was gathered for each tagged tree including the tree's species, diameter measured at breast height ("DBH") and dripline radius ("DLR"). Utilizing this data the tree's overall structural condition and vigor were separately assessed ranging from "excellent"[1] to "poor" based upon the observed characteristics noted within the tree and the Arborist's best professional judgment. Ratings are subjective and are dependent upon both the structure and vigor of the tree. The vigor rating considers factors such as the size, color and density of the foliage; the amount of deadwood within the canopy; bud viability; evidence of wound closure; and the presence or evidence of stress, disease, nutrient deficiency and insect infestation. The structural rating reflects the root crown/collar, trunk and branch configurations; canopy balance; the presence of included bark, weak crotches and other structural defects and decay and the potential for structural failure. Finally, notable characteristics were documented and recommendations on a tree-by-tree basis were made which logically followed the observed characteristics noted within the trees at the time of the field inventory effort. The recommendations are based on the assumption that the tree would be introduced into a developed environment and may require maintenance and/or may not be suitable for retention within a post-development setting.

SUMMARY OF INVENTORY EFFORT

Field reconnaissance and inventory efforts found 216 trees measuring 4 inches in diameter and larger measured at breast height within and/or overhanging the proposed project area. Composition of the 216 inventoried trees includes the following species and accompanying aggregate diameter inches:

SPECIES DIVERSIFICATION			
Canary Island Palm	=	12 trees	(250 aggregate diameter inches)
Chinese Elm	=	2 trees	(38 aggregate diameter inches)
Chinese Hackberry	=	1 tree	(11 aggregate diameter inches)
Chinese Pistache	=	2 trees	(18 aggregate diameter inches)
Crepe Myrtle	=	7 trees	(57 aggregate diameter inches)
Elm	=	11 trees	(190 aggregate diameter inches)
Evergreen Ash	=	5 trees	(87 aggregate diameter inches)
Evergreen Elm	=	1 tree	(13 aggregate diameter inches)

[1] It is rare that a tree qualifies in an "excellent" category, and it should be noted that there were no trees observed within the project area which fell within the criteria of an "excellent" or "good" rating. A complete description of the terms and ratings utilized in this report and accompany inventory summary are found on pages 12-13.

SPECIES DIVERSIFICATION			
Evergreen Pear	=	12 trees	(124 aggregate diameter inches)
Flowering Pear	=	3 trees	(35 aggregate diameter inches)
Fruitless Mulberry	=	2 trees	(33 aggregate diameter inches)
Hackberry	=	7 trees	(67 aggregate diameter inches)
Honey Locust	=	27 trees	(389 aggregate diameter inches)
Liquidambar	=	29 trees	(420 aggregate diameter inches)
London Plane	=	17 trees	(264 aggregate diameter inches)
Mexican Fan Palm	=	3 trees	(46 aggregate diameter inches)
Modesto Ash	=	2 trees	(44 aggregate diameter inches)
Olive	=	1 tree	(23 aggregate diameter inches)
Paper Bark Birch	=	4 trees	(41 aggregate diameter inches)
Pin Oak	=	1 tree	(10 aggregate diameter inches)
Pinus sp.	=	9 trees	(139 aggregate diameter inches)
Plum sp.	=	3 trees	(56 aggregate diameter inches)
Privet	=	1 tree	(9 aggregate diameter inches)
Raywood Ash	=	6 trees	(69 aggregate diameter inches)
Silver Maple	=	1 tree	(20 aggregate diameter inches)
Southern Magnolia	=	6 trees	(45 aggregate diameter inches)
Trident Maple	=	2 trees	(12 aggregate diameter inches)
Valley Oak	=	1 tree	(17 aggregate diameter inches)
Western Juniper	=	1 tree	(12 aggregate diameter inches)
White Birch	=	1 tree	(6 aggregate diameter inches)
Zelkova	=	36 trees	(572 aggregate diameter inches)
TOTAL	**=**	**216 trees**	**(3,117 aggregate diameter inches)**

Recommended Removals

At this time, 55 trees have been recommended for removal from the proposed project area due to the nature and extent of defects, compromised health, and/or structural instability noted at the time of field inventory efforts. If these trees were retained within the proposed project area it is our opinion that they may be hazardous depending upon their proximity to planned development activities. For reference, the trees which have been recommended for removal due to the severity of noted defects, compromised health and/or structural instability are highlighted in green within the accompanying Tree Inventory Summary and are briefly summarized as follows:

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT	
						STRUCTURE	VIGOR
617	Elm	*(Ulmus)*		12	3	Poor	Poor
618	Elm	*(Ulmus)*		12	10	Poor	Poor
623	Modesto Ash	*(Fraxinus velutina)*		12	14	Poor to fair	Poor to fair
624	Silver Maple	*(Acer saccharinum)*		20	21	Poor to fair	Poor to fair
625	Mexican Fan Palm	*(Washingtonia robusta)*		16	10	Poor to fair	Fair
628	Honey Locust	*(Gleditsia triacanthos)*		15	31	Poor to fair	Fair
635	London Plane	*(Platanus × acerifolia)*		18	29	Poor to fair	Fair
639	London Plane	*(Platanus × acerifolia)*		10	17	Poor to fair	Fair
644	Zelkova	*(Zelkova serrata)*		18	22	Poor	Fair
648	London Plane	*(Platanus × acerifolia)*		6	13	Poor to fair	Fair
649	Evergreen Ash	*(Fraxinus udhei)*		23	26	Poor	Fair
657	Honey Locust	*(Gleditsia triacanthos)*		9	15	Poor to fair	Fair
658	White Birch	*(Betula papyrifera)*		6	5	Poor	Poor
660	Flowering Pear	*(Pyrus calleryana)*		10	15	Poor to fair	Fair
662	Liquidambar	*(Liquidambar styraciflua)*		13	15	Fair	Fair
665	Hackberry	*(Celtis)*		7	12	Poor	Fair
666	Hackberry	*(Celtis)*		7	12	Poor	Fair
668	Evergreen Ash	*(Fraxinus udhei)*		18	24	Poor to fair	Poor to fair
675	Honey Locust	*(Gleditsia triacanthos)*		8	13	Poor	Fair
684	Honey Locust	*(Gleditsia triacanthos)*		14	13	Poor to fair	Fair
686	Liquidambar	*(Liquidambar styraciflua)*		12	15	Poor	Poor
694	Zelkova	*(Zelkova serrata)*		11	17	Poor	Poor

699	Pinus sp.	*(Pinus spp.)*		14	12	Poor	Poor to fair
803	Liquidambar	*(Liquidambar styraciflua)*		18	24	Poor	Fair
805	Honey Locust	*(Gleditsia triacanthos)*		13	20	Poor	Poor
806	Honey Locust	*(Gleditsia triacanthos)*		14	27	Poor to fair	Fair
807	Evergreen Pear	*(Pyrus kawakamii)*		12	15	Poor	Poor to fair
808	Evergreen Pear	*(Pyrus kawakamii)*		11	17	Poor	Fair
812	Western Juniper	*(Juniperus occidentalis)*		12	10	Poor	Poor
813	Zelkova	*(Zelkova serrata)*		15	25	Poor to fair	Fair
820	Fruitless Mulberry	*(Morus alba 'Chaparral')*		14	17	Poor	Fair
821	Fruitless Mulberry	*(Morus alba 'Chaparral')*		19	19	Poor to fair	Poor to fair
822	Evergreen Pear	*(Pyrus kawakamii)*		12	18	Poor	Fair
823	Evergreen Pear	*(Pyrus kawakamii)*		9	21	Poor	Fair
824	Evergreen Pear	*(Pyrus kawakamii)*		9	16	Poor to fair	Fair
830	Raywood Ash	*(Fraxinus oxycarpa 'Raywood')*		13	22	Poor	Fair
831	Raywood Ash	*(Fraxinus oxycarpa 'Raywood')*		11	18	Poor	Fair
833	Raywood Ash	*(Fraxinus oxycarpa 'Raywood')*		7	8	Fair	Poor
837	Olive	*(Olea europaea)*	6,8,9	23	18	Poor	Fair
860	Plum sp.	*(Prunus sp.)*	8,8,9	25	23	Poor	Fair
861	Plum sp.	*(Prunus sp.)*		13	15	Poor	Fair
862	Plum sp.	*(Prunus sp.)*	8,10	18	21	Poor	Fair
863	Flowering Pear	*(Pyrus calleryana)*		11	12	Poor to fair	Fair
866	Privet	*(Ligustrum lucidum)*		9	10	Poor	Fair
875	Zelkova	*(Zelkova serrata)*		13	16	Poor to fair	Fair
876	Evergreen Pear	*(Pyrus kawakamii)*		7	17	Poor	Fair

877	Evergreen Pear	*(Pyrus kawakamii)*		8	12	Poor to fair	Fair
878	Evergreen Pear	*(Pyrus kawakamii)*		9	15	Poor to fair	Fair
880	Zelkova	*(Zelkova serrata)*		21	21	Poor to fair	Fair
887	Evergreen Pear	*(Pyrus kawakamii)*		10	14	Poor to fair	Fair
888	Zelkova	*(Zelkova serrata)*		13	16	Poor	Fair
889	Evergreen Pear	*(Pyrus kawakamii)*		17	24	Poor to fair	Fair
906	Paper Bark Birch	*(Betula papyrifera)*		16	16	Poor to fair	Poor to fair
907	Paper Bark Birch	*(Betula papyrifera)*		8	9	Poor to fair	Poor to fair
914	Honey Locust	*(Gleditsia triacanthos)*		19	37	Poor	Poor to fair

It should also be noted that some of the trees within the proposed project area are trees which may be undesirable on residential lots, or are trees which will require periodic/seasonal monitoring to assess the trees' ongoing structural integrity. At this early stage of the project Sierra Nevada Arborists has not recommended the removal of these trees since development plans, including proposed home sites and building footprints, have not yet been finalized and the precise location of these trees in proximity to planned improvement activities is not known. At this time it is recommended that these trees be monitored and thoroughly inspected by a qualified ISA Certified Arborist on at least an annual basis to keep abreast of the trees' changing condition(s) and to assess the trees' ongoing structural integrity and potential for hazard in a developed environment.

CONSTRUCTION IMPACT ASSESSMENT

This Arborist Report and Tree Inventory Summary is intended to provide to Phillippi Engineering, the City of Sacramento, and other members of the development team a detailed *pre-development review* of the species, size, and current structure and vigor of the trees within and/or overhanging the proposed project area. It is not an exhaustive review of the impacts which will be sustained from project implementation. At this early stage of the project specific root system and canopy impacts on a tree-by-tree basis cannot be definitively assessed until the site development, grading, and other improvement plans have been refined and finalized and data from the accompanying inventory summary (i.e., tree numbers, dripline radius, and root protection zones) is properly depicted on the plans.

Since trees are living organisms whose condition may change at any time a complete assessment of construction impacts and specific recommendations to help mitigate for the adverse impacts which may be sustained by the trees from contemplated construction

activities cannot be made until the development plans have been refined and finalized. Once final plans have been developed for the site a qualified ISA Certified Arborist with special expertise and demonstrated experience with construction projects in and among native and non-native trees should review those plans and provide a more detailed assessment of impacts, including identification of trees which may require removal to facilitate home construction and other contemplated site development activities. This review will be particularly important if structures and/or residential activities will fall within or near the fall zone of a tree which has been noted as exhibiting structural defects, questionable long-term longevity and/or a conditional rating which is less than "fair", and for trees which measure 16 inches and greater in diameter which will be retained within close proximity to development as trees of this size may pose a more significant hazard if a sudden limb shed and/or catastrophic failure should occur. In addition, the review should include an assessment of root system and canopy impacts which will be sustained by the trees which will be retained within the proposed development area, along with specific recommendations on a tree-by-tree basis to help reduce adverse impacts of construction on the retained trees. In the meantime, this report provides some pre-development recommendations which logically follow the observed characteristics noted in the trees at the time of the field inventory efforts, as well as General Protection Measures which should be utilized as a guideline for the protection of trees which may be retained within the development area. These recommendations will require modification and/or augmentation as development plans are refined and finalized.

GENERAL COMMENTS AND ARBORISTS' DISCLAIMER

The City of Sacramento regulates both the removal of "protected trees" and the encroachment of construction activities within their driplines. Therefore, a tree permit and/or additional development authorization should be obtained from the City of Sacramento prior to the removal of any trees within the proposed project area. All terms and conditions of the tree permit and/or other Conditions of Approval are the sole and exclusive responsibility of the project applicant. It should be noted that prior to final inspection written verification from an ISA Certified Arborist may be required certifying the approved removal activities and/or implementation of other Conditions of Approval outlined for the retained trees on the site. ***Sierra Nevada Arborists will not provide written Certification of Compliance unless we have been provided with a copy of the approved site development plans, applicable permits and/or Conditions of Approval, and are on site to monitor and observe regulated activities during the course of construction.*** Therefore, it will be necessary for the project applicant to notify Sierra Nevada Arborists well in advance (at least 72 hours prior notice) of any regulated activities which are scheduled to occur on site so that those activities can be properly monitored and documented for compliance certification.

Please bear in mind that implementation of the recommendations provided within this report will help to reduce adverse impacts of construction on the retained trees; however, implementation of any recommendations should not be viewed as a guarantee or warranty against the trees' ultimate demise and/or failure in the future. Arborists are tree specialists

who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of the trees and ***attempt to reduce the risk of living near trees***. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Entities who choose to construct homes on wooded property are accepting a certain level of risk from unpredictable tree related hazards such as toppling in storms, limbs falling and fires that may damage property at some time in the future. Since trees are living organisms their structure and vigor constantly change over time, and they are not immune to changes in site conditions or seasonal variations in the weather. Further, conditions are often hidden within the tree and/or below ground. Arborists and other tree care professionals cannot guarantee that a tree will be healthy and/or safe under all circumstances or for a specific period of time. Likewise remedial treatments cannot be guaranteed. Trees can be managed but they cannot be controlled. To develop land and live near trees is to accept some degree of risk and the only way to eliminate all risk associated with trees would be to eliminate all of the trees. ***An entity who develops land and builds a home with a tree in the vicinity should be aware of and inform their future residents of this Arborists' Disclaimer, and be further advised that the developer and the future residents assume the risk that a tree could at any time suffer a branch and/or limb failure, blow over in a storm and/or fail for no apparent reason which may cause bodily injury or property damage***. Sierra Nevada Arborists cannot predict acts of nature including, without limitation, storms of sufficient strength which can even take down a tree with a structurally sound and vigorous appearance.

Finally, the trees preserved within and/or overhanging the proposed project area will experience a physical environment different from the pre-development environment. As a result, tree health and structural stability should be regularly monitored. Occasional pruning, fertilization, mulch, pest management, replanting and/or irrigation may be required. In addition, ***provisions for monitoring both tree health and structural stability following construction must be made a priority***. As trees age, the likelihood of failure of branches or entire trees increases. Therefore, ***the future management plan must include an annual inspection*** by a qualified ISA Certified Arborist to keep abreast of the trees' changing condition(s) and to assess the trees' ongoing structural integrity and potential for hazard in a developed environment.

Thank you for allowing Sierra Nevada Arborists to assist you with this review. Please feel free to give me a call if you have any questions or require additional information and/or clarification.

Sincerely,

Edwin E. Stirtz
International Society of Arboriculture
Certified Arborist WE-0510A
ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.

3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.

4. The consultant shall not be required to give a deposition and/or attend court by reason of this report unless subsequent contractual arrangements are made for in advance, including payment of an additional fee for such services according to our standard fee schedule, adjusted yearly, and terms of the subsequent contract of engagement.

5. Loss or alteration of any part of this report invalidates the entire report. Ownership of any documents produced passes to the Client only when all fess have been paid.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant.

7. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed written or verbal consent of the consultant, particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in his qualifications.

8. This report and any values expressed herein represent the opinion of the consultant and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

9. Sketches, diagrams, graphs, drawings and photographs within this report are intended as visual aids and are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by other consultants is for coordination and ease of

reference. Inclusion of such information does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.

10. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without laboratory analysis, dissection, excavation, probing or coring, unless otherwise stated.

11. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

12. This report is based on the observations and opinions of Edwin E. Stirtz, and does not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described herein. Neither this author nor Sierra Nevada Arborists has assumed any responsibility for liability associated with the trees on or adjacent to this Project Site, their future demise and/or any damage which may result therefrom.

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13. The information contained within this report is true to the best of the author's knowledge and experience as of the date it was prepared; however, certain conditions may exist which only a comprehensive, scientific, investigation might reveal which should be performed by other consulting professionals.

14. The legal description, dimensions, and areas herein are assumed to be correct. No responsibility is assumed for matters that are legal in nature.

15. Any changes to an established tree's environment can cause its decline, death and/or structural failure.

DEFINITIONS

Tree Number:	Corresponds to aluminum tag attached to the tree.
Species Identification:	Scientific and common species name.
Diameter ("DBH"):	This is the trunk diameter measured at breast height (industry standard 4.5 feet above ground level).
Dripline radius ("DLR"):	A radius equal to the horizontal distance from the trunk of the tree to the end of the farthest most branch tip prior to any cutting. When depicted on a map, the dripline will appear as an irregularly shaped circle that follows the contour of the tree's branches as seen from overhead.
Protected Zone:	A circle equal to the largest radius of a protected tree's dripline plus 1 foot.
Root Crown:	Assessment of the root crown/collar area located at the base of the trunk of the tree at soil level.
Trunk:	Assessment of the tree's main trunk from ground level generally to the point of the primary crotch structure.
Limbs:	Assessment of both smaller and larger branching, generally from primary crotch structure to branch tips.
Foliage:	Tree's leaves.
Overall Condition:	Describes overall condition of the tree in terms of structure and vigor.
Recommendation:	Pre-development recommendations based upon observed characteristics noted at the time of the field inventory effort.
Obscured:	Occasionally some portion of the tree may be obscured from visual inspection due to the presence of dense vegetation which, during the course of inspection for the arborist report, prevented a complete evaluation of the tree. In these cases, if the tree is to be retained on site the vegetation should be removed to allow for a complete assessment of the tree prior to making final decisions regarding the suitability for retention.

TREE CONDITION RATING CRITERIA

RATING TERM	ROOT CROWN	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR
Good	No apparent injuries, decay, cavities or evidence of hollowing; no anchoring roots exposed; no indications of infestation or disease	No apparent injuries, decay, cavities or evidence of hollowing; no codominant attachments or multiple trunk attachments are observed; no indications of infestation or disease	No apparent injuries, decay, cavities or evidence of hollowing; below average amount of dead limbs or twigs; no major limb failures or included bark; callus growth is vigorous	Leaf size, color and density are typical for the species; buds are normal in size, viable, abundant and uniform throughout the canopy; annual seasonal growth increments are average or above average; no insect or disease infestations/ infections evident	No apparent structural defects; no weak crotches; no excessively weighted branches and no significant cavities or decay	Tree appears healthy and has little or no significant deadwood; foliage is normal and healthy
Fair	Small to moderate injuries, decay, cavities or hollowing may be evident but are not currently affecting the overall structure; some evidence of infestation or disease may be present but is not currently affecting the tree's structure	Small to moderate injuries, decay, cavities or hollowing may be evident; codominant branching or multiple trunk attachments or minor bark inclusion may be observed; some infestation or disease may be present but not currently affecting the tree's structure	Small to moderate injuries, decay or cavities may be present; average or above average dead limbs or twigs may be present; some limb failures or bark inclusion observed; callus growth is average	Leaf size, color and density are typical or slightly below typical for the species; buds are normal or slightly sparse with potentially varied viability, abundance and distribution throughout the canopy; annual seasonal growth increments are average or slightly below average; minor insect or disease infestation/infection may be present	Minor structural problems such as weak crotches, minor wounds and/or cavities or moderate amount of excessive weight; non-critical structural defects which can be mitigated through pruning, cabling or bracing	Tree appears stressed or partially damaged; minimal vegetative growth since previous season; moderate amount of deadwood, abnormal foliage and minor lesions or cambium dieback
Poor	Moderate to severe injuries, decay, cavities or hollowing may be evident and are affecting the overall structure; presence of infestation or disease may be significant and affecting the tree's structure	Moderate to severe injuries, decay, cavities or hollowing may be evident and are affecting the tree's structure; presence of infestation or disease may be significant and affecting the tree's structure	Severe injuries, decay or cavities may be present; major deadwood, twig dieback, limb failures or bark inclusion observed; callus growth is below average	Leaf size, color and density are obviously abnormal; buds are obviously abnormal or absent; annual seasonal growth is well below average for the species; insect or disease problems may be severe	Obvious major structural problems which cannot be corrected with mitigation; potential for major limb, trunk or root system failure is high; significant decay or dieback may be present	Tree health is declining; no new vegetative growth; large amounts of deadwood; foliage is severely abnormal

The ratings "good to fair" and "fair to poor" are used to describe trees that fall between the described major categories and have elements of both

GENERAL PROTECTION GUIDELINES FOR TREES PLANNED FOR PRESERVATION

Great care must be exercised when work is conducted upon or around protected trees. The purpose of these General Protection Measures is to provide guidelines to protect the health of the affected protected trees. These guidelines apply to all encroachments into the protected zone of a protected tree, and may be incorporated into tree permits and/or other Conditions of Approval as deemed appropriate by the applicable governing body.

- A circle with a radius measurement from the trunk of the tree to the tip of its longest limb, plus one foot, shall constitute the critical root zone protection area of each protected tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each protected tree. Removing limbs that make up the dripline does not change the protected area.

- Any protected trees on site which require pruning shall be pruned by an ISA Certified Arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards, ANSI Standard 2133.1-2000 regarding safety practices, and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines" and Best Management Practices.

- Prior to initiating construction, temporary protective fencing shall be installed at least one foot outside the root protection zone of the protected trees in order to avoid damage to the tree canopies and root systems. Fencing shall be installed in accordance with the approved fencing plan prior to the commencement of any grading operations or such other time as determined by the review body. The developer shall contact the Project Arborist and the Planning Department for an inspection of the fencing prior to commencing construction activities on site.

- Signs shall be installed on the protective fence in four (4) equidistant locations around each individual protected tree. The size of each sign must be a minimum of two (2) feet by two (2) feet and must contain the following language:

  WARNING: THIS FENCE SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OF SACRAMENTO.

  Once approval has been obtained by the City of Sacramento protective fencing shall remain in place throughout the entire construction period and shall not be removed, relocated, taken down or otherwise modified in whole or in part without prior written authorization from the Agency, or as deemed necessary by the Project Arborist to facilitate approved activities within the root protection zone.

- Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected tree shall be done under the direct supervision of the Project Arborist. To the maximum extent feasible, demolition work within the dripline protection area of the protected tree shall be performed by hand. If the Project Arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.

- No signs, ropes, cables (except those which may be installed by an ISA Certified Arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of identification in preparing tree reports and inventories shall be allowed.

- No vehicles, construction equipment, mobile homes/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.

- Drainage patterns on the site shall not be modified so that water collects, stands or is diverted across the dripline of any protected tree.

- No trenching shall be allowed within the driplines of protected trees, except as specifically approved by the Planning Department as set forth in the project's Conditions of Approval and/or approved tree permit. If it is absolutely necessary to install underground utilities within the dripline of a protected tree the utility line within the protected zone shall be "bored and jacked" or performed utilizing hand tools to avoid root injury under the direct supervision of the Project Arborist.

- Grading within the protected zone of a protected tree shall be minimized. Cuts within the protected zone shall be maintained at less than 20% of the critical root zone area. Grade cuts shall be monitored by the Project Arborist. Any damaged roots encountered shall be root pruned and properly treated as deemed necessary by the Project Arborist.

- Minor roots less than one (1) inch in diameter encountered during approved excavation and/or grading activities may be cut, but damaged roots shall be traced back and cleanly cut behind any split, cracked or damaged area as deemed necessary by the Project Arborist.

- Major roots greater than one (1) inch in diameter encountered during approved excavation and/or grading activities may not be cut without approval of the Project Arborist. Depending upon the type of improvement being proposed, bridging techniques or a new site design may need to be employed to protect the roots and the tree.

- Cut faces, which will be exposed for more than 2-3 days, shall be covered with dense burlap fabric and watered to maintain soil moisture at least on a daily basis (or possibly more frequently during summer months). If any native ground surface fabric within the protected zone must be removed for any reason, it shall be replaced within forty-eight (48) hours.

- If fills exceed 1 foot in depth up to 20% of the critical root zone area, aeration systems may serve to mitigate the presence of the fill materials as determined by the Project Arborist.

- When fill materials are deemed necessary on two or three sides of a tree it is critical to provide for drainage away from the critical root zone area of the tree (particularly when considering heavy winter rainfalls). Overland releases and subterranean drains dug outside the critical root zone area and tied directly to the main storm drain system are two options.

- In cases where a permit has been approved for construction of a retaining wall(s) within the protected zone of a protected tree the applicant will be required to provide for immediate protection of exposed roots from moisture loss during the time prior to completion of the wall. The retaining wall within the protected zone of the protected tree shall be constructed within seventy-two (72) hours after completion of grading within the root protection zone.

- The construction of impervious surfaces within the dripline of a protected tree shall be minimized. When necessary, a piped aeration system shall be installed under the direct supervision of the Project Arborist.

- Preservation devices such as aeration systems, tree wells, drains, special paving and cabling systems must be installed in conformance with approved plans and certified by the Project Arborist.

- No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the dripline of a protected tree. An above ground drip irrigation system is recommended. An independent low-flow drip irrigation system may be used for establishing drought-tolerant plants within the protected zone of a protected tree. Irrigation shall be gradually reduced and discontinued after a two (2) year period.

- All portions of permanent fencing that will encroach into the protected zone of a protected tree shall be constructed using posts set no closer than ten (10) feet on center. Posts shall be spaced in such a manner as to maximize the separation between the tree trunks and the posts in order to reduce impacts to the tree(s).

- Landscaping beneath native oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. Planting live material under protected native oak trees is generally discouraged, and is not recommended within six (6) feet of the trunk of a native oak tree with a diameter a breast height (DBH) of eighteen (18) inches or less, or within ten (10) feet of the trunk of a native oak tree with a DBH of more than eighteen (18) inches. The only plant species which shall be planted within the dripline of native oak trees are those which are tolerant of the natural, semi-arid environs of the tree(s).

APPENDIX D

Cultural Resources Inventory Report

DUDEK

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December 4, 2018

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

Subject: Cultural Resources Inventory Report for the Fairgrounds Drive Subdivision Project, City of Sacramento, California – Negative Findings

Dear Mr. Bess:

This letter documents the negative cultural resources inventory conducted by Dudek for the Fairgrounds Drive Subdivision Project (Project), located in the City of Sacramento, California (Figure 1). The City of Sacramento (City) is lead agency responsible for compliance with the California Environmental Quality Act (CEQA). All cultural resource fieldwork and reporting for this project has been conducted by archaeologists meeting the Secretary of the Interior's Professional Qualifications Standards. A Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search did suggest the presence of any Native American sacred sites within or near the Project site. A North Central Information Center (NCIC) records search indicated that no cultural resources have been recorded within the area of potential effect (APE), which is represented by the 8.7-acre Project site. All resources on file for this records search area are historic in age. Intensive pedestrian survey conducted of the APE and surrounding did not identify cultural resources.

PROJECT LOCATION AND PRESENT USE

The Project is located in the City of Sacramento north of Broadway between 53rd and 56th Streets in the southeastern portion of the City. The approximately 8.7-acre project site is located adjacent to Fairgrounds Drive (Figure 2). The site is bounded on the north, east and west by Fairgrounds Drive and on the south by Greenfair Park and existing residential uses that include private tennis courts and a pool. The project site is generally flat and sits at an elevation of approximately 34 feet above mean sea level. The site is undeveloped with the exception of 16 carports, small parking areas, and sidewalks that are remnants of the prior residential development, numerous mature trees, and non-native grass. The project site is located in the

Sacramento East 7.5-minute USGS Quad, within Section 16 of Township 8 North; Range 5 East of the Public Land Survey System (PLSS).

PROJECT DESCRIPTION

The proposed project includes amending the General Plan land use designation from Traditional Neighborhood High Density to Traditional Neighborhood Medium Density and rezoning the site from Multi-Family Dwelling to Single-Unit or Duplex Dwelling. The project would subdivide the 8.68-acre site into 68 single family lots with an average lot size of 3,552 square feet, along with internal roadways, sidewalks and landscaping (Figure 3). Approximately 55 of the 216 trees would be removed consistent with the City's Tree Preservation Ordinance to accommodate the project. However, additional trees may require removal once specific design plans are developed. The carports, parking areas and sidewalks, and underground utilities present on the site would also be removed to accommodate future development.

REGULATORY CONTEXT

The Project as currently planned is subject only to state and local regulatory conditions.

State of California

The California Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Public Resources Code (PRC) Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

(2) Is associated with the lives of persons important in our past

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

(4) Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further in the following text, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

PRC Section 21083.2(g) defines "unique archaeological resource."

PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would materially impair the significance of a historical resource.

PRC Section 21074(a) defines "tribal cultural resources."

PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.

Commission (NAHC) to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor, punishable by up to 1 year in jail, to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the California NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans. PRC Sections 21083.2(b)–(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource, even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA [CEQA Guidelines Section 15064.5(b)(2)].

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2(a), (b), and (c)).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts to nonunique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a nonunique archaeological resource qualifies as tribal cultural resource (PRC 21074(c); 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described in the following text, these procedures are detailed in PRC Section 5097.98.

California State Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that Tribal Cultural Resources (TCR) must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is either:

- On the California Register of Historical Resources or a local historic register; Eligible for the California Register of Historical Resources or a local historic register; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]).

The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Native American Human Remains

State law (PRC Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the Native American Heritage Commission (NAHC).

In the event that Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from PRC Section 5097.98) and California Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended of the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98 (14 CCR 15064.5(e)).

Local Regulations

City of Sacramento 2035 General Plan

The City adopted the 2035 Sacramento General Plan in March 2015 (City of Sacramento 2015). The General Plan includes policy guidelines to guide future development in the City and provide for the protection of the City's resources, including historical and cultural resources. The plan proposes the following three goals, with policies designed at achieving these goals.

GOAL HCR 1.1: Comprehensive City Preservation Program. Maintain a comprehensive, citywide preservation program to identify, protect, and assist in the preservation of Sacramento's historic and cultural resources.

HCR 1.1 Policies:

- **HCR 1.1.1 Certified Local Government.** The City shall maintain its status as a Certified Local Government (CLG) and use CLG practices as the key components of the City's preservation program.

- **HCR 1.1.2 Preservation Office, Commission, and Program.** The City shall maintain a Preservation Office, Commission, and program to administer the City's preservation functions and programs.

- **HCR 1.1.3 Certified Local Government Requirements.** The City shall maintain provisions in the Sacramento City Code for a preservation program consistent with the Federal and State Certified Local Government requirements.

GOAL HCR 2.1: Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

HCR 2.1 Policies:

- **HCR 2.1.1 Identification.** The City shall identify historic and cultural resources, including individual properties, districts, and sites (e.g., archaeological sites), to ensure adequate protection of these resources.

- **HCR 2.1.2 Applicable Laws and Regulations.** The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.

- **HCR 2.1.3 Consultation.** The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines", etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.

- **HCR 2.1.4 Incentives and Enforcement.** The City shall develop and support regulatory (e.g., appropriate development and zoning standards), technical, and financial incentives (e.g., City, State, Federal, and private grants, loans, easements, and tax credits) and enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the city's historic and cultural resources.

- **HCR 2.1.5 National, California, and Sacramento Registers.** The City shall support efforts to pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate National, California, or Sacramento registers.

- **HCR 2.1.6 Planning.** The City shall take historical and cultural resources into consideration in the development of planning studies and documents.

- **HCR 2.1.7 Historic Resource Property Maintenance**. The City shall encourage maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risks of demolition, loss through fire or neglect, or impacts from natural disasters.

- **HCR 2.1.8 Historic Preservation Enforcement.** The City shall ensure that City enforcement procedures and activities comply with local, State, and Federal historic and cultural preservation requirements.

- **HCR 2.1.9 City-Owned Resources.** The City shall maintain all City-owned historic and cultural resources in a manner that is consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

- **HCR 2.1.10 Early Project Consultation.** The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process.

- **HCR 2.1.11 Compatibility with Historic Context.** The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.

- **HCR 2.1.12 Contextual Features.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features (e.g., structures, landscapes, street lamps, signs) related to historic resources.

- **HCR 2.1.13 Historic Surveys and Context Statements.** Where historic resource surveys may no longer be valid, or for areas that have not been surveyed, the City shall seek funding to prepare new historic context surveys. In these surveys, the potential eligibility of all properties 5 years and older for listing in National, California or Sacramento registers shall be evaluated.

- **HCR 2.1.14 Adaptive Reuse.** The City shall encourage adaptive reuse of historic resources when the original use of the resource is no longer feasible.

- **HCR 2.1.15 Demolition.** The City shall consider demolition of historic resources as a last resort, to be permitted only if rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.

- **HCR 2.1.16 Archaeological & Cultural Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

- **HCR 2.1.17 Preservation Project Review.** The City shall review and evaluate proposed development projects to minimize impacts on identified historic and cultural resources, including projects on Landmark parcels and parcels within Historic Districts, based on applicable adopted criteria and standards.

GOAL HCR 3.1: Public Awareness and Appreciation. Foster public awareness and appreciation of Sacramento's historic and cultural resources.

HCR 3.1 Policies:

- **HCR 3.1.1 Heritage Tourism.** The City shall work with agencies, organizations, property owners, and business interests to develop and promote Heritage Tourism opportunities, in part as an economic development strategy.

- **HCR 3.1.2 Coordination with Other Entities.** The City shall coordinate with and support public quasi-public, and private (e.g., SHRA, CADA, Native American Tribes), entities in their preservation programs and efforts.

- **HCR 3.1.3 Public/Private Partnerships.** The City shall explore public/private partnerships in its preservation program efforts, including partnerships with business and education interests, and expansion of shared missions with Sacramento Heritage, Inc.

- **HCR 3.1.4 Education.** The City shall act as a conduit for and provide information to the public on Sacramento's historic and cultural resources and preservation programs through the region's cultural resources survey repository at the North Central Information Center, educational institutions, the City's Center for Sacramento History, and the City's website in order to promote the appreciation, maintenance, rehabilitation, and preservation of Sacramento's historic and cultural resources.

NCIC RECORDS SEARCH

A records search of the APE and the surrounding one half-mile was completed by NCIC staff on November 6, 2018 (Confidential Appendix A). This search included their collection of mapped prehistoric, historical and built-environment resources, Department of Parks and Recreation (DPR) Site Records, technical reports, archival resources, and ethnographic references. Additional consulted sources included the National Register of Historic Places (NRHP), California Inventory of Historical Resources/CRHR and listed OHP Archaeological Determinations of Eligibility, California Points of Historical Interest, California Historical Landmarks, and Caltrans Bridge Survey information.

Previously Conducted Studies:

NCIC records indicate that five (5) previous cultural resources technical investigations have been conducted within a one half-mile of the proposed alignment. Of these, none included any portion of the current APE (Table 1; Confidential Appendix A).

Table 1. Previous technical studies within a one half-mile radius of the APE

NCIC Number	Author	Year	Company	Title
000271	Wiant, Wayne C.	1986	Caltrans	Negative Archeological Survey Report, Proposed Land Exchange, 03-Sac-5502, 16054-400400.
003344	Jensen, Peter M.	2000	Jensen & Associates	Archaeological Inventory Survey Proposed Tahoe Park/Broadway Parallel Sewer Project

NCIC Number	Author	Year	Company	Title
004403	Billat, Lorna	2000	EarthTouch, LLC	Historical Resource Reconnaissance of a Proposed Nextel Communications Wireless Telecommunications Service Facility, Site No. CA-0462F/ 65th Expressway
005807	Wulf, Erick	2004	California Department of Transportation	Historic Resource Compliance and Archaeological Survey Reports for the Proposed Translab Rehabilitation Project, 5900 Folsom Boulevard, Sacramento, California
010888	Mead & Hunt	2011	Mead & Hunt	Historic Property Study Kelsey Village

Previously Identified Cultural Resources:

Twelve (12) sites, prehistoric resources, have been recorded within the surrounding half-mile records search area. None of these resources are located within the APE. (Table 2; Confidential Appendix A). The closest resources, residences of historic age, are located on S Street (P-34-002312 to P-34-002321), are 0.3 miles to the north.

Dudek reviewed historical aerials (available since 1947) and topographic maps (available since 1902) (NETR 2018). These maps indicated the APE was unused until between 1947 and 1949 when warehouse/barn storage structures were built. These storage buildings were present until the APE was converted to residential use between 1969 and 1977. Between 2002 and 2009, these residences were demolished, leaving carports, parking areas, and sidewalks. These maps and aerial photographs did not indicate the presence of any remaining historical built-environment resources within the APE.

Table 2. Cultural resources within a one half-mile radius of the APE

Primary	Trinomial	Age	Description	Relation to APE
P-34-000455	CA-SAC-000428H	Historic	Sacramento Valley Railroad	Outside
P-34-002312	-	Historic	Building: 1841 51st Street	Outside
P-34-002313	-	Historic	Building: 1840 52nd Street	Outside
P-34-002314	-	Historic	Building: 1817 53rd Street	Outside
P-34-002315	-	Historic	Building: 5325 S Street	Outside
P-34-002316	-	Historic	Building: 5333 S Street	Outside
P-34-002317	-	Historic	Building: 5341 S Street	Outside
P-34-002318	-	Historic	Building: 5349 S Street	Outside
P-34-002319	-	Historic	Building: 5401 S Street	Outside

Primary	Trinomial	Age	Description	Relation to APE
P-34-002320	-	Historic	Building: 5409 S Street	Outside
P-34-002321	-	Historic	Building: 1909 55th Street	Outside
P-34-004272	-	Historic	Building: SMUD Headquarters Building	Outside

NAHC CORRESPONDENCE

Dudek requested a NAHC search of their Sacred Lands File on November 26, 2018 for the proposed project area. Results were provided on December 4, 2018. The NAHC results did indicate the presence of Native American traditional cultural place(s) within this area, which includes the one square mile representing Section 16 (Confidential Appendix B). The NAHC additionally provided a list of Native American tribes and individuals/organizations that might have knowledge of cultural resources in this area. Dudek has not contacted any of the individuals or organizations provided by the NAHC.

The proposed project is subject to compliance with Assembly Bill 52 (PRC Section 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process, and requires the CEQA lead agency to notify any groups (who have requested notification) of the proposed project who are traditionally or culturally affiliated with the geographic area of the project. Because Assembly Bill 52 is a government-to-government process, all records of correspondence related to Assembly Bill 52 notification and any subsequent consultation are on file with the City.

METHODS

Intensive Pedestrian Survey

Dudek archaeologist Nicholas Hanten inspected all areas of the APE on December 4, 2018. No archaeological or historic-era built-environment artifacts or features were identified within the APE. Modern development (carports, sidewalks, parking areas), paved roads, and landscaping vegetation were observed within the project area. All areas of the APE appeared to have been previously and substantially disturbed through residential development, road construction, and the installation of underground utilities.

Potential for yet identified cultural resources in the vicinity was reviewed against geologic and topographic GIS data for the area and information from other near-by projects. The "archaeological sensitivity," or potential to support the presence of buried prehistoric archaeological deposits, is generally interpreted based on geologic landform and environmental parameters (i.e., distance to water and landform slope). The landform in the area is comprised of

Quaternary alluvium generally associated with the Late Holocene. The Sacramento River is located 1.5 miles northeast of the APE. While this area would be attractive to Native American groups due to its proximity to the Sacramento River, the high levels of previous development observed in the project area indicate virtually no native soils remain undisturbed. The area has been subject to historical use. While this does increase the potential for the presence of historic-age buried deposits, some evidence of related refuse or features would have likely been observable from inspection of the surface if such a deposit were present. Based on review of this information, the project area is indicated to have a low potential for unanticipated prehistoric deposits and a low-moderate potential buried historic-age resources.

SUMMARY AND MANAGEMENT RECOMENDATIONS

No archaeological resources were identified within the project site or immediate vicinity as a result of intensive pedestrian survey or the NCIC records search. A NAHC Sacred Lands File Search, which included all of PLSS Section 16, did identify the presence of Sacred Sites. Project consultation with traditionally geographically associated Native American tribes will be completed by the City. While the area has been substantially disturbed, it is always possible that intact archaeological deposits are present at deeper subsurface levels, below disturbed surface soils. Management recommendations to reduce potential impacts to unanticipated archaeological resources and human remains during subdivision construction activities are provided below.

Unanticipated Archaeological Resources

All construction crew should be alerted to the potential to the potential to encounter archaeological material. In the event that cultural resources (sites, features, artifacts, or fossilized material) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified specialist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Prehistoric archaeological deposits may be indicated by the presence of discolored or dark soil, fire-affected material, concentrations of fragmented or whole freshwater bivalves shell, burned or complete bone, non-local lithic materials, or the characteristic observed to be atypical of the surrounding area. Common prehistoric artifacts may include modified or battered lithic materials; lithic or bone tools that appeared to have been used for chopping, drilling, or grinding; projectile points; fired clay ceramics or non-functional items; and other items. Historic-age deposits are often indicated by the presence of glass bottles and shards, ceramic material, building or domestic refuse, ferrous metal, or old features such as concrete foundations or privies. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves

significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Unanticipated Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete his/her inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Should you have any questions relating to this report and its findings please contact myself or Adam Giacinto by email: agiacinto@dudek.com or phone: 530.863.4653.

Respectfully Submitted,

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cc: Adam Giacinto, Dudek
Shilpa Iyer, Dudek
Christine Kronenberg, Dudek

Att: Figure 1. Regional Map
Figure 2. Site Map
Figure 3. Site Plan

Appendix A: NCIC Records Search Information (Confidential)
Appendix B: NAHC SLF Search Results

REFERENCES

City of Sacramento. 2015. *2035 General Plan*. http://www.cityofsacramento.org/Community-Development/Resources/Online-Library/2035--General-Plan. Accessed November 29, 2018.

NETR (National Environmental Title Research). 2018. 'Historical Aerials by NETROnline' https://www.historicaerials.com. Accessed November 29, 2018.

NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

Authors:	William Burns MSc, RPA and Adam Giacinto, MA, RPA
Firm:	Dudek
Client/Project Proponent:	Western America Properties/City of Sacramento
Report Date:	December 4, 2018
Report Title:	Cultural Resources Inventory Report for the Fairgrounds Drive Subdivision Project, City of Sacramento, California – Negative Findings
Type of Study:	Cultural Resources Inventory
New Sites:	None
Updated Sites:	None
USGS Quad:	Sacramento East 7.5-minute
Acreage:	Approximately 8.7 acres
Permit Numbers:	Permitting pending
Key Words:	Negative survey; Sacramento, Hunter Drive

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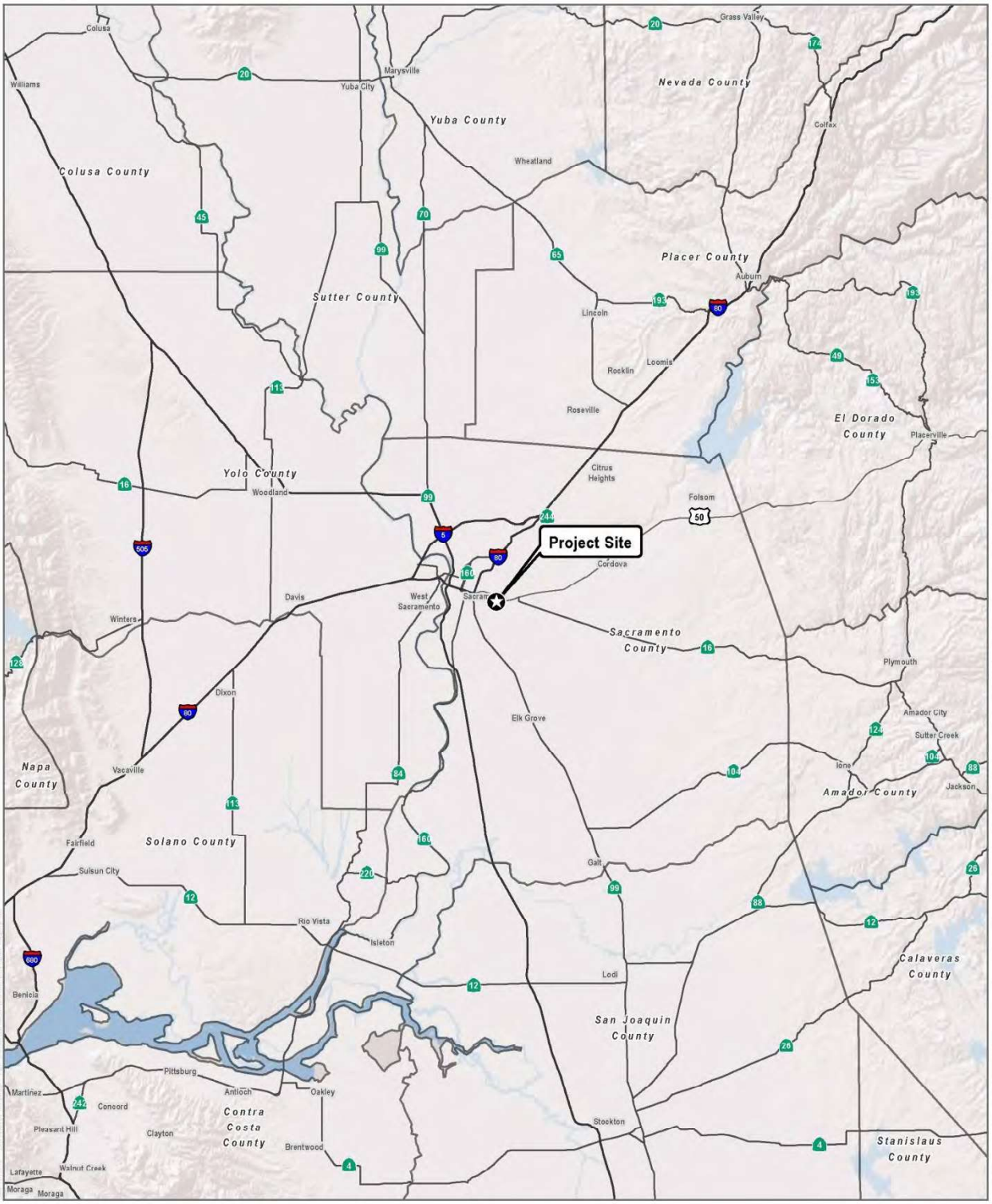

SOURCE: Esri 2018

DUDEK 0 5 10 Miles

FIGURE 1

Regional Map

Fairgrounds Subdivision Project

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SOURCE: Bing Maps 2018; Sacramento County 2016

DUDEK 0 150 300 Feet

FIGURE 2
Project Location Map
Fairgrounds Subdivision Project

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SOURCE: Phillippi Engineering 2018

FIGURE 3

Site Plan

Fairgrounds Subdivision Project

DUDEK

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APPENDIX A
(CONFIDENTIAL)

NCIC Records Search Information

California Historical Resources Information System

NORTH CENTRAL INFORMATION CENTER

AMADOR
EL DORADO
NEVADA
PLACER
SACRAMENTO
YUBA

California State University, Sacramento
6000 J Street, Folsom Hall, Suite 2042
Sacramento, California 95819-6100
phone: (916) 278-6217
fax: (916) 278-5162
email: ncic@csus.edu

11/6/2018 NCIC File No.: SAC-18-187

Adam Giacinto
Dudek
853 Lincoln Way
Auburn, CA 95603

Re: Fairgrounds Dr Project (11482)

The North Central Information Center received your record search request for the project area referenced above, located on the Sacramento East USGS 7.5' quad. The following reflects the results of the records search for the project area and a ½-mi radius.

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles

Resources within project area: Resources outside project area, within radius:	None P-34-455 P-34-2312 P-34-2313 P-34-2314 P-34-2315 P-34-2316 P-34-2317 P-34-2318 P-34-2319 P-34-2320 P-34-2321 P-34-4272
Reports within project area: Reports outside project area, within radius:	None 271 3344 4403 5807 10888

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed/NA
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed/NA
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed/NA
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed/NA
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed/NA

OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Archaeological Determinations of Eligibility:	☒ enclosed	☐ not requested	☐ nothing listed/NA
CA Inventory of Historic Resources (1976):	☒ enclosed	☐ not requested	☐ nothing listed/NA
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Local Inventories:	☐ enclosed	☐ not requested	☒ nothing listed/NA
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Soil Survey Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

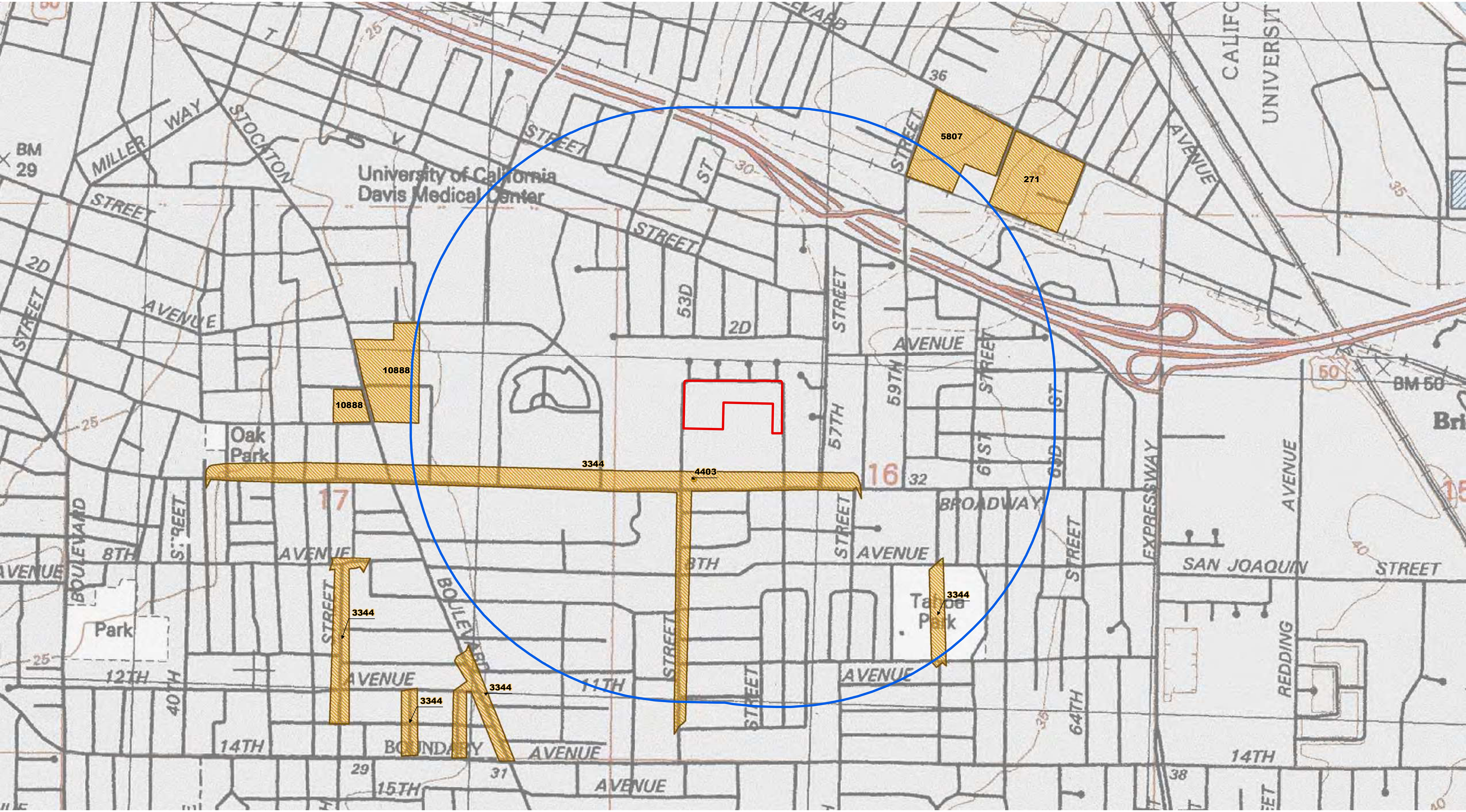
The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,

Paul Rendes, Assistant Coordinator
North Central Information Center



University of California
Davis Medical Center
MILLER WAY
STOCKTON
Oak Park
BROADWAY
SAN JOAQUIN STREET
EXPRESSWAY
REDDING
BOULEVARD
Park
10888
10888
5807
271
3344
4403
3344
3344
3344
3344
3344
57TH
59TH
61ST
53D
2D
11TH
12TH
14TH
15TH
40TH
64TH
BM 29
BM 50

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
000271		1986	Wiant, Wayne C.	Negative Archeological Survey Report, Proposed Land Exchange, 03-Sac-5502, 16054-400400.	Caltrans	
003344		2000	Jensen, Peter M.	Archaeological Inventory Survey Proposed Tahoe Park/Broadway Parallel Sewer Project	Jensen & Associates	
004403		2000	Billat, Lorna	Historical Resource Reconnaissance of a Proposed Nextel Communications Wireless Telecommunications Service Facility, Site No. CA-0462F/ 65th Expressway	EarthTouch, LLC	
005807		2004	Erick Wulf	Historic Resource Compliance Report for the Proposed Translab Rehabititation Project, 5900 Folsom Boulevard, Sacramento, California	California Department of Transportation	
005807B		2004	Erick Wulf	Archaeological Survey Report for the Proposed Translab Rehabilitation Project, 5900 Folsom Boulevard, Sacramento, California	Caltrans	
010888		2011	Mead & Hunt	Historic Property Study Kelsey Village	Mead & Hunt	34-004426, 34-004427, 34-004428, 34-004429, 34-004430, 34-004431, 34-004432, 34-004433, 34-004434, 34-004435


P-34-000455
P-34-002312
P-34-002313
P-34-002314
P-34-002318
P-34-002320
P-34-002315
P-34-002316
P-34-002317
P-34-002319
P-34-002321
P-34-004272
University of California
Davis Medical Center
Oak Park
Tahoe Park
Park
BROADWAY
SAN JOAQUIN STREET
EXPRESSWAY
BOUNDARY AVENUE
STOCKTON BOULEVARD
MILLER WAY
CALIFORNIA UNIVERSITY
BM 29
BM 50
50
16
17

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-34-000455	CA-SAC-000428H	Resource Name - Sacramento Valley Rail Road; Other - California's First Passenger Railroad; CHL - 526; CHL - 558; Other - Southern Pacific Railroad; Other - CIHR 169; Other - CIHR 197; Other - Southern Pacific R Street Railroad, 13th to 16th streets, Sacramento; Other - SPRR R Street Track and Siding, 13th to 16th streets; Other - Southern Pacific R Street Railroad Track and Siding 16th to 18th streets, Sacramento; Other - Southern Pacific Railroad, Fair Oaks Spur; Other - LAR-15; Other - REF 48-H; Other - WAPA 20	Structure, Object, Site	Historic	AH07 (Roads/trails/railroad grades); HP18 (Train)	1979 (Jim Arbuckle); 1991 (K. Syda, L. Shapiro, PAR Environmental Services, Inc.); 1991 (Keith Syda, Will Shapiro, PAR Environmental Services, Inc.); 1993 (Stephen D. Mikesell, JRP Historical Consulting Services); 1995 (S. Flint, M. Kelly, Dames & Moore); 1998 (Eleanor Derr, Cultural Resources Unlimited); 1998 (Robert Gerry, Peak & Associates, Inc.); 1999 (John W. Dougherty, PAR Environmental Services); 2001 (Rand Herbert, Amanda Blosser, JRP); 2002 (Amanda Blosser, Toni Webb, JRP); 2009 (Mary L. Maniery, PAR Environmental Services, Inc); 2013	000786, 001847, 002557, 002566, 002594, 004520, 006092, 007130, 009188, 010322, 011585
P-34-002312		Resource Name - 1841 51st Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002313		Resource Name - 1840 52nd Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002314		Resource Name - 1817 53rd Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002315		Resource Name - 5325 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002316		Resource Name - 5333 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002317		Resource Name - 5341 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002318		Resource Name - 5349 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002319		Resource Name - 5401 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-002320		Resource Name - 5409 S Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-34-002321		Resource Name - 1909 55th Street	Building	Historic	HP02 (Single family property)	2005 (Andrew Hope, Caltrans)	007309
P-34-004272		Resource Name - SMUD Headquarters Building	Building	Historic	HP06 (1-3 story commercial building); HP95 (Concrete Construction)	2009 (Carol Roland, Roland-Nawi Associates)	

APPENDIX B

NAHC SLF Search Results

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Fairgrounds Subdivision Project (11482) SLF Search Request

County: Sacramento

USGS Quadrangle Name: Sacramento East, CA

Township: 8 North **Range:** 5 East **Section(s):** 16

Company/Firm/Agency: Dudek

Contact Person: Adam Giacinto, M.A., RPA

Street Address: 853 Lincoln Way

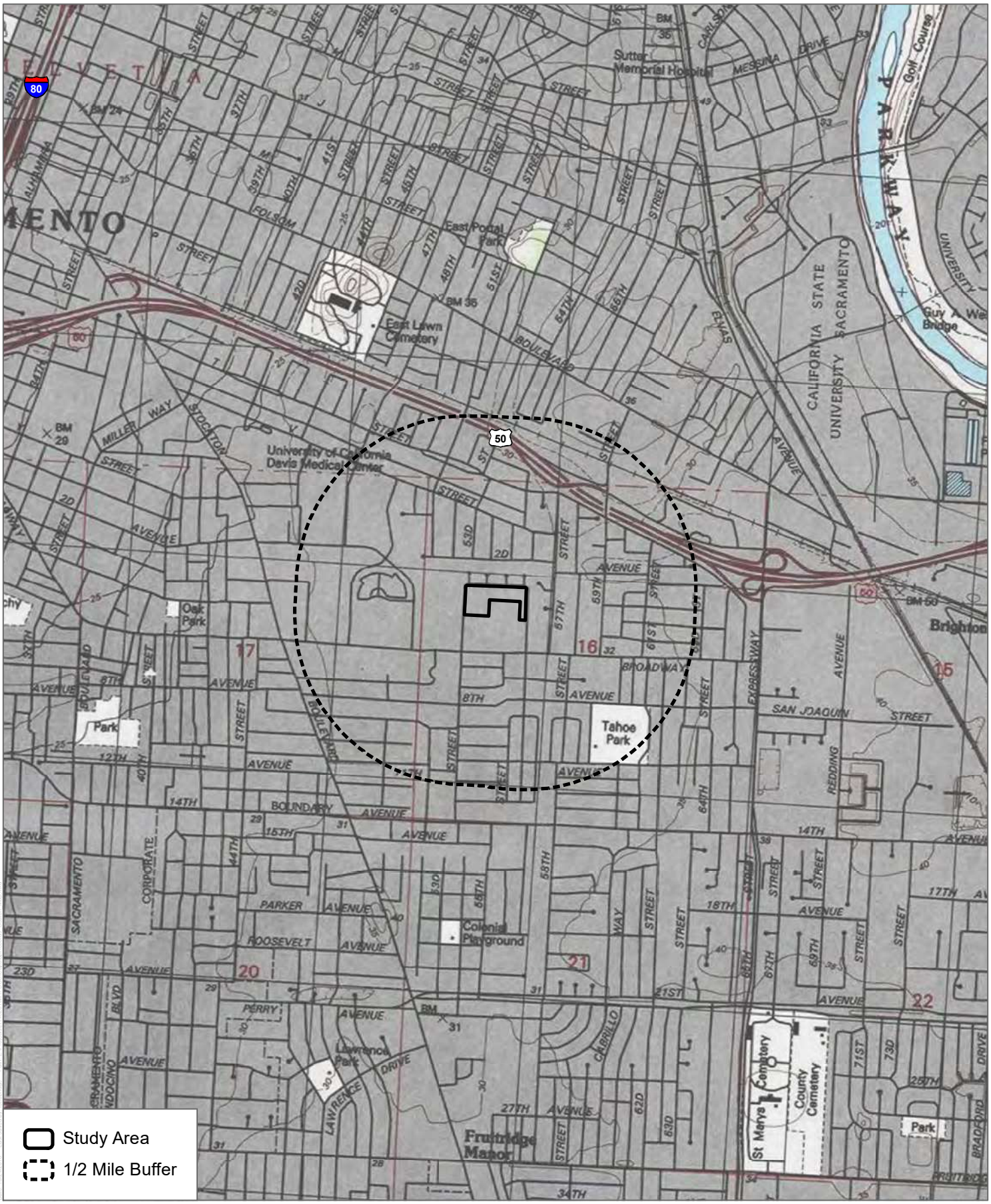
City: Auburn **Zip:** 95603

Phone: 530.863.4653 **Fax:** 530.887.1250

Email: agiacinto@dudek.com

Project Description: The project is assessing current cultural resources constraints for a proposed project. The City of Sacramento is the CEQA lead agency. Dudek is requesting a Sacred Lands File search as part of the cultural resources Inventory process. Please provide contacts for appropriate traditionally geographically affiliated Native American representatives and/or organizations from whom this information may be also requested.

(See attached Project Location Map)



SOURCE: USGS 7.5-Minute Series Sacramento East Quadrangle
Township 8N; Range 5E; Sections 8, 9, 16, 17

DUDEK

0 1,000 2,000 Feet
0 250 500 Meters
1:24,000

Records Search

Fairgrounds Drive Subdivision Project

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710

December 4, 2018

Adam Giancinto
DUDEK

Sent by Email: agiacinto@dudek.com
Number of Pages: 2

RE: Fairgrounds Subdivision Project (11482), Sacramento East, Sacramento County

Dear Mr. Giacinto:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* (SLF) was completed for the area of potential project effect (APE) for the above referenced project. **Sacred sites were identified in the project areas provided**. Please contact the United Auburn Indian Community and the Ione Band of Miwok Indians directly for more information about potential sacred sites and tribal cultural resources within your APE.

The absence of site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE. Other sources of cultural resources information should be contacted regarding known and recorded sites. Please contact all of the people on the attached list. The list should provide a starting place to locate areas of potential adverse impact within the APE. I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. **By contacting all those on the list, your organization will be better able to respond to claims of failure to consult under applicable laws.** If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst
(916) 573-0168

Native American Heritage Commission
Native American Contacts List
12/4//2018

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento , CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884 — Miwok
Auburn , CA 95604 — Maidu
PCubbler@colfaxrancheria.com
(530) 320-3943

Colfax-Todds Valley Consolidated Tribe
Clyde Prout, Chairman
P.O. Box 4884 — Miwok
Auburn , CA 95604 — Maidu
miwokmaidu@yahoo.com
(916) 577-3558

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth , CA 95669
sara@ionemiwok.net
(209) 245-5800 Office
(209) 245-6377 Fax

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme A. Valdez, Chairperson
P.O. Box 580986 — Miwok
Elk Grove , CA 95758-001
valdezcome@comcast.net
(916) 429-8047 Voice/Fax
(916) 396-1173 Cell

Shingle Springs Band of Miwok Indians
Regina Cuellar, Chairperson
P.O. Box 1340 — Miwok
Shingle Springs , CA 95682 — Maidu
rcuellar@ssband.org
(530) 387-4970
(530) 387-8067 Fax

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 510 — Maidu
Browns Valley , CA 95918
tsi-akim-maidu@att.net
(530) 274-7497

Tsi Akim Maidu
Don Ryberg, Chairperson
P.O. Box 510 — Maidu
Browns Valley , CA 95918
tsi-akim-maidu@att.net
(530) 274-7497
(530) 559-8595

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn , CA 95603 — Miwok
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove , CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
Fairgrounds Subdivision Project (11482), Sacramento East, Sacramento County.