DOUGLAS ROAD PHASE 2 PROJECT

Draft Initial Study/Mitigated Negative Declaration

2729 Prospect Park Drive
Rancho Cordova, CA 95670

August 2016

DRAFT INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION
FOR
DOUGLAS ROAD PHASE 2 PROJECT
CITY OF RANCHO CORDOVA, CALIFORNIA

Prepared by:

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1.0 Introduction

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This document is an Initial Study (IS) with supporting technical studies, which provides justification for a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA) for the Douglas Road Phase 2 Project (proposed project).

The IS/MND is a public document to be used by the City of Rancho Cordova (City), acting as the CEQA lead agency, to determine whether the proposed project could have a significant effect on the environment pursuant to CEQA. If the lead agency finds substantial evidence that any aspect of the proposed project, either individually or cumulatively, may have a significant effect on the environment that cannot be mitigated, regardless of whether the overall effect of the proposed project is adverse or beneficial, the lead agency is required to prepare an environmental impact report (EIR), use a previously prepared EIR and supplement that EIR, or prepare a subsequent EIR to analyze the proposed project (Public Resources Code Sections 21080(d) and 21082.2(d)).

If the lead agency finds no substantial evidence that the proposed project or any of its aspects may cause a significant impact on the environment with implementation of mitigation measures, an MND shall be prepared with a written statement describing the reasons why the proposed project would not have a significant effect on the environment and therefore why it does not require the preparation of an EIR.

According to CEQA Guidelines Section 15070, a negative declaration must be prepared for a project subject to CEQA when either:

1) *The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or*

2) *The initial study identifies potentially significant effects, but:*

    a) *Revisions in the project plans or proposals made by, or agreed to by the applicant before the proposed MND and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*

    b) *There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.*

This IS/MND has been prepared in accordance with CEQA, Public Resources Code Section 21000 et seq., and the CEQA Guidelines Title 14 California Code of Regulations (CCR) Section 15000 et seq.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers." The City of Rancho Cordova Public Works Department has initiated preliminary design of the

proposed project and it requires approval from the Rancho Cordova City Council. Therefore, based on the criteria described above, the City is the lead agency for the proposed project.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this IS/MND is to evaluate the potential environmental impacts of the proposed Douglas Road Phase 2 Project. Mitigation measures have also been established that reduce or eliminate any identified significant and/or potentially significant impacts. This document is divided into the following sections:

1.0 INTRODUCTION

This section provides an introduction and describes the purpose and organization of the document.

2.0 PROJECT DESCRIPTION

This section provides a detailed description of the proposed project and the process used for notifying and involving the public during project planning, and describes coordination with relevant agencies and organizations.

3.0 INITIAL STUDY CHECKLIST

This section describes the environmental setting for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant impact," "less than significant impact with mitigation incorporated," or "potentially significant impact" in response to the environmental checklist, includes mitigation measures, where appropriate, to mitigate potentially significant impacts to a less than significant level, and provides an environmental determination for the project.

4.0 REFERENCES

This section identifies resources used in the preparation of this document.

2.0 Project Description

2.1 PROJECT LOCATION

The project site is located along an approximately 6,800-foot segment of Douglas Road between Rancho Cordova Parkway and Americanos Boulevard in eastern Rancho Cordova. This segment of Douglas Road is currently two lanes with a center turn lane and bicycle lanes along the majority of the segment. Refer to **Figure 1** and **Figure 2** for the regional vicinity and project location maps.

2.2 PROJECT DESCRIPTION

The City of Rancho Cordova Public Works Department proposes to widen the segment of Douglas Road located between Rancho Cordova Parkway and Americanos Boulevard. The proposed improvements to the first 5,300 feet east of Rancho Cordova Parkway would comprise north lane and north side frontage improvements that will complete the buildout of Douglas Road to a City standard four-lane arterial roadway. The remaining 1,500 feet of the roadway widening east to Americanos Boulevard would include center lane, north lane, and north side frontage improvements. The project would require acquisition of approximately 64 feet of right-of-way for construction of a median, two travel lanes, and a pedestrian/bike path on the south side of the existing Douglas Road alignment. Project construction would include placement of pavement, sidewalk, curb, gutter, median, landscape, irrigation, striping, signage, water, sewer, drainage, fire protection, street lighting, and signal lighting improvements. The conceptual layout of the improvements is shown in **Figure 3**.

The City is also considering an option to install a new driveway connection from Douglas Road to Security Park that would align with Borderlands Drive on the south side of Douglas Road. The existing driveway into Security Park would be removed. The optional driveway would be approximately 350 feet long and would terminate at Tailings Drive, as shown in **Figure 4**. The driveway would include sidewalk, curb, gutter, landscaping, and lighting. Some improvements at the point of connection and along Tailings Drive would be required to conform the new driveway to Tailings Drive. Therefore, this IS/MND also evaluates the potential environmental effects associated with constructing the driveway.

2.3 PROJECT CONSTRUCTION

The analysis contained in this IS/MND has taken into consideration activities within the entire project area, including proposed construction staging areas. All mitigation measures included as part the project would be implemented throughout these areas.

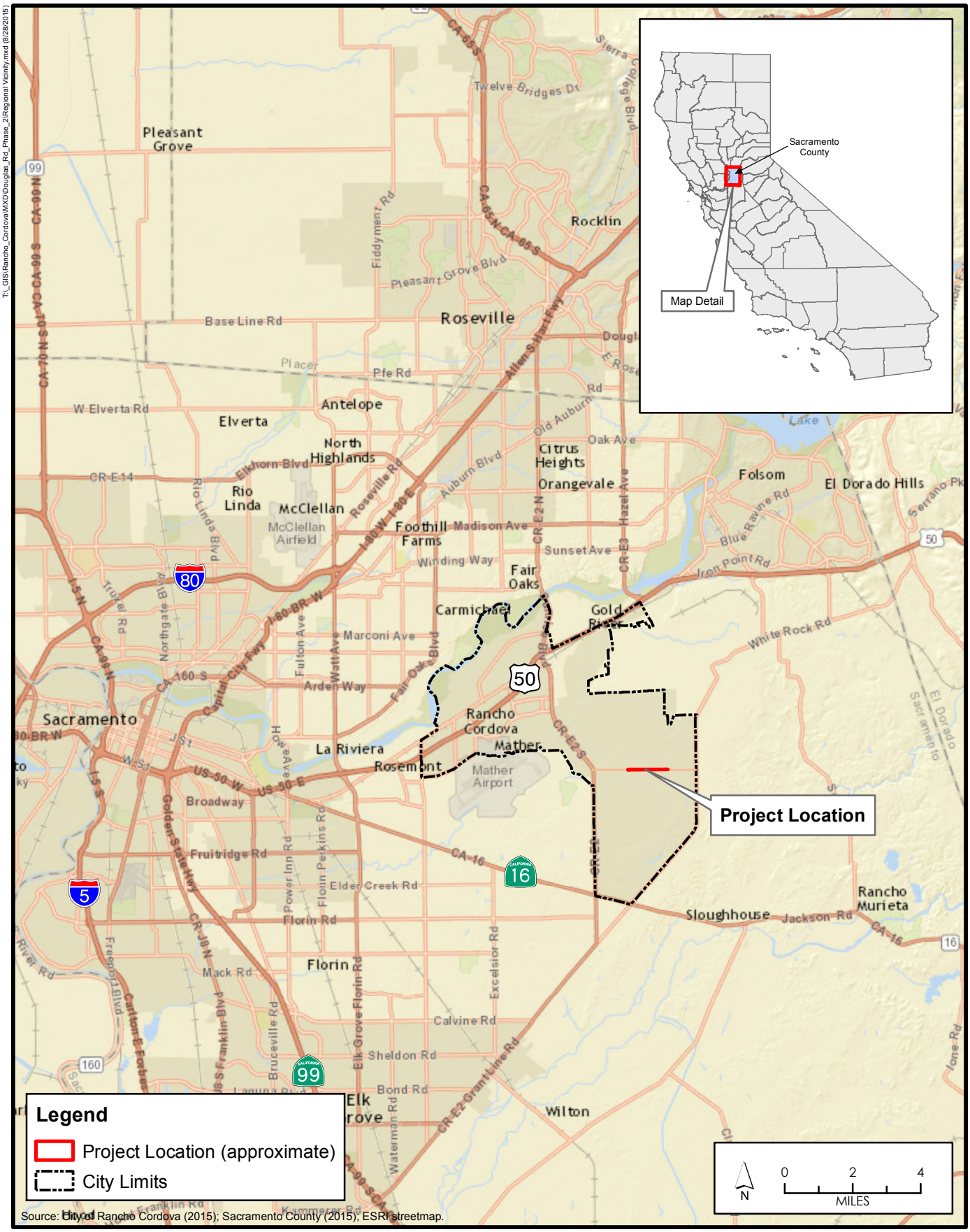
2.4 REQUIRED PROJECT APPROVALS

Anticipated project approvals/actions would include, but are not limited to, the following:

- Rancho Cordova City Council – Adoption of the MND, Mitigation Monitoring and Reporting Program (MMRP), and other actions associated with project approval, such as right-of-way acquisition, and wetland permitting (US Army Corps of Engineers 401 and 404 permits)

2.5 OTHER PROJECT ASSUMPTIONS

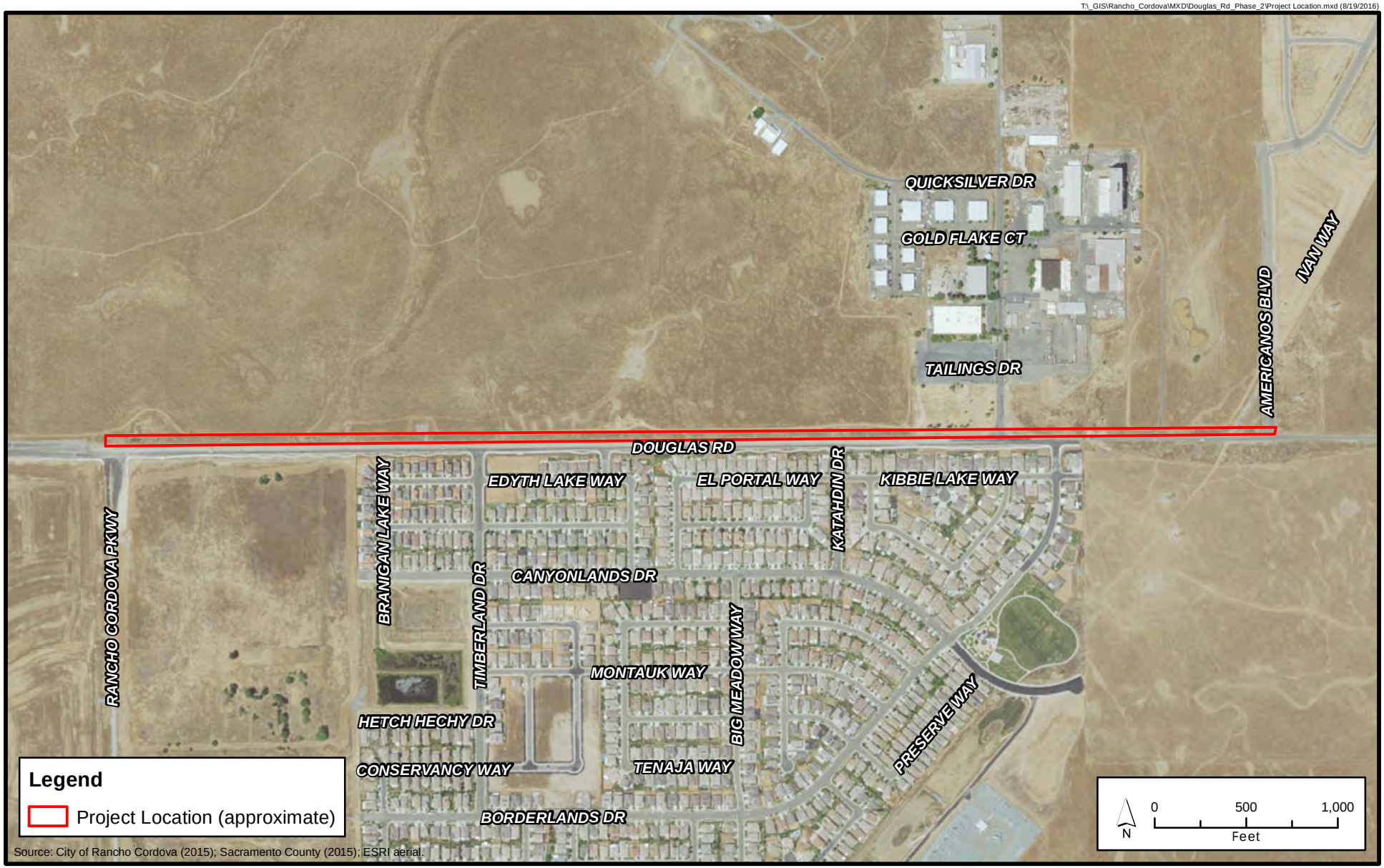
This IS/MND assumes compliance with all applicable state, federal, and local codes and regulations including, but not limited to, the City of Rancho Cordova Improvement Standards, the Guidance Manual for On-Site Stormwater Quality Control Measures, the California Health and Safety Code, and the California Public Resources Code.



City of Rancho Cordova
Planning Department

Figure 1

Regional Vicinity

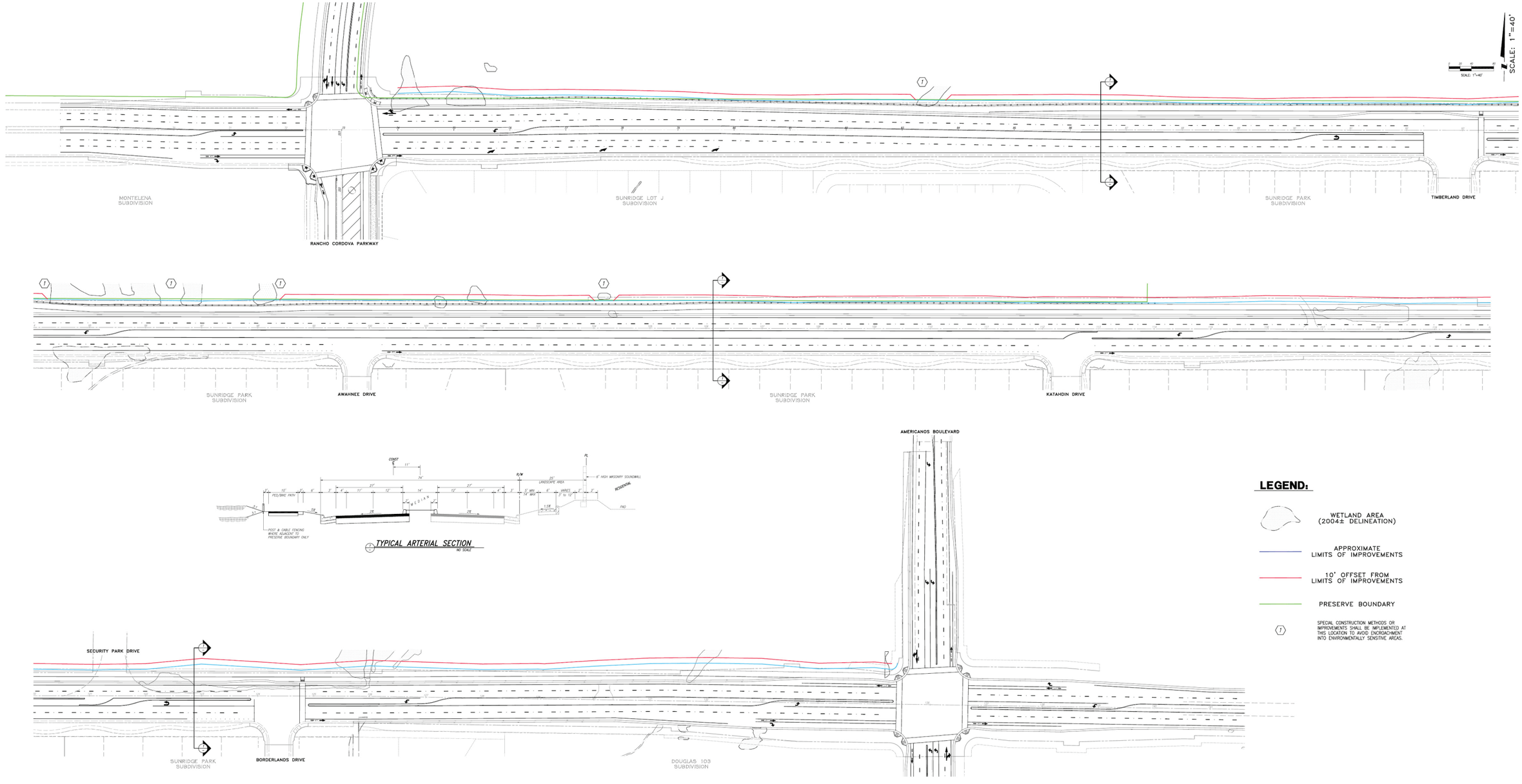


City of Rancho Cordova
Planning Department

Figure 2

Project Location

T:_CSIWork\Rancho Cordova, City of\Capital Improvements\Douglas Road



Source: MSA Engineering, Inc.

City of Rancho Cordova
Planning Department

Figure 3
Conceptual Layout for Douglas Road Phase 2

City of Rancho Cordova
Planning Department

Figure 4

Security Park Driveway Option

3.0 CHECKLIST

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

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

DETERMINATION

On behalf of this initial evaluation:

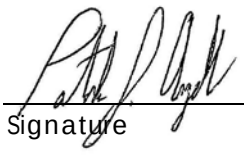
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature	8/26/2016 Date
Patrick Angell, Environmental Coordinator	City of Rancho Cordova Development Services–Planning
Printed Name	For

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is located along a 6,800-foot segment of Douglas Road between Rancho Cordova Parkway and Americanos Boulevard in eastern Rancho Cordova. The area north of the project site is primarily undeveloped grassland that is an established wetland preserve as part of the Rio Del Oro Specific Plan project. East of this area is Security Park, consisting of several large industrial buildings set back more than 500 feet from the roadway. The area south of the project site is partially developed as a suburban residential subdivision (SunRidge Specific Plan) consisting of one-story houses with garages and landscaped yards. Views of this residential area from the project site are largely obscured by a continuous sound wall separated from the roadway by a winding sidewalk and landscaping. Some lots in the subdivision are under construction, and the western portion of this area remains undeveloped.

There are no designated state scenic highways or locally designated scenic roadways within or adjacent to the project site.

DISCUSSION OF IMPACTS

a) *Have a substantial adverse effect on a scenic vista?*

No Impact. The project area has been developed or is planned for future development with suburban residential and related uses. Views from the project site are of vacant parcels and residential and industrial development set behind a sound wall. Views of the project site consist of an asphalt-paved, two-lane rural roadway with a drainage ditch to the north. The surrounding views are not considered to be of high scenic value. Furthermore, the City of Rancho Cordova General Plan (2006a) does not identify any scenic resources or scenic vistas within the project site or in the surrounding area. Therefore, there would be no impact on a scenic vista.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. The proposed project will not require the removal of any trees, as there are no trees on the project site. No rock outcroppings are present at the project site. Furthermore, there are no officially designated state scenic highways or locally

designated scenic roadways in the vicinity. Therefore, the proposed project would not damage scenic resources, and no impact would occur.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Less Than Significant Impact. The proposed project would widen the northern lane of a segment of Douglas Road and construct associated frontage improvements including curb, gutter, sidewalk, signage, street lighting, and landscaping to accommodate planned development in the area. The project would result in minor vegetation removal along Douglas Road as well as the temporary presence of construction equipment, worker vehicles, fencing, and stockpiled materials. The proposed improvements are minor in nature. Once completed, they would result in a negligible change in visual character and would complement the urban conditions that exist in the area. Furthermore, the proposed improvements were envisioned in both the City of Rancho Cordova General Plan and the Rio Del Oro Specific Plan. Therefore, the project would not substantially degrade the visual character or quality of the project site or the surrounding area.

d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Less Than Significant Impact. The proposed project includes installation of pole-mounted street lighting along the northern side of Douglas Road, similar to existing lighting along the southern side of the roadway. Although it would represent a new source of light in the area, the lighting would be consistent with suburban development and would be approximately 100 feet farther from existing residential uses than the existing street lighting. In addition, lighting would be designed pursuant to Rancho Cordova Municipal Code Chapter 23.725 to preserve dark skies and ensure that light trespass and glare have a negligible impact on surrounding property. This includes requiring full shielding and/or recessed lighting, and downward directed fixtures. Therefore, the proposed lighting would not be considered a substantial new source of light and would not adversely affect existing or planned uses or the night sky.

SECURITY PARK DRIVEWAY OPTION

The Security Park Driveway would provide a connection from Douglas Boulevard into Security Park. It would include sidewalks, landscaping, and lighting. The driveway would be similar in appearance to the existing driveway to the west. Lighting would be designed to comply with the City's requirements, as described above. The addition of the driveway option would not result in any substantial change in the less than significant visual quality and lighting impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.2. AGRICULTURE AND FORESTRY RESOURCES. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 45260), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Agriculture in Rancho Cordova is categorized as either general or rural agriculture. Land used for general agriculture generates commercial-level production, and land used for rural agriculture permits agricultural activities while providing a transitional area between rural agricultural and residential uses. The majority of land used for agriculture within the city limits is found adjacent to or near the northwestern and southern city limit boundaries. The City of Rancho Cordova General Plan Draft Environmental Impact Report (EIR) (2006b) explains that the majority of agricultural land within the Planning Area, historically used for grazing, growing row and field crops, orchards, and small vineyards, is now considered fallow, meaning it is vacant or underutilized. The proposed project is located in an area designated as Grazing Land and Urban and Built-Up Land on the Sacramento County Important Farmland Map 2012 (DOC 2014). No parcels enrolled in a Williamson Act contract are located in the vicinity of the project site (DOC 2013). There is no designated farmland, forestland, or timberland in the project vicinity.

DISCUSSION OF IMPACTS

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?*

No Impact. According to the California Department of Conservation's (2014) Sacramento County Important Farmland 2012 map, parcels located immediately north and south of the project site are designated as Grazing Land and Urban and Built-Up

Land. No conversion of Prime Farmland, Unique Farmland, or Farmland of State Importance would occur as a result of project implementation.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. The City of Rancho Cordova Zoning and Future Land map (2014) designates land north and south of the project site for future development as part of various specific plans adopted by the City. Therefore, project implementation would not conflict with existing zoning for agricultural use.

According to the Sacramento County Williamson Act Map for fiscal year 2011/2012, there are no parcels enrolled in a Williamson Act contract in the vicinity of the project site (DOC 2013). Therefore, project implementation would not conflict with a Williamson Act contract.

c) *Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 45260), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

No Impact. The project site and surrounding parcels do not include forestland, timberland, or timberland zoned Timberland Production as defined by the Public Resources Code or the Government Code.

d) *Result in the loss of forestland or conversion of forestland to non-forest use?*

No Impact. There is no designated forestland within or adjacent to the project site. Thus, the proposed project would not cause any loss of forestland or the conversion of forestland to non-forest use.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?*

No Impact. The proposed project does not involve any changes or alterations to the existing environment that could result in the conversion of farmland to nonagricultural use or forestland to non-forest use, as no farmland or forestland exists in the immediate or surrounding area of the proposed project. Therefore, there would be no impact.

SECURITY PARK DRIVEWAY OPTION

The area where the driveway could be constructed is not Important Farmland and does not include any agricultural or forestry operations. There would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.3. AIR QUALITY. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located in the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). The air basin is relatively flat, bordered by mountains to the east, west, and north and by the San Joaquin Valley to the south. Air flows into the SVAB through the Carquinez Strait, moving across the Sacramento Delta, and bringing with it pollutants from the heavily populated San Francisco Bay Area. The climate is characterized by hot, dry summers and cool, rainy winters. Characteristic of SVAB winter weather are periods of dense and persistent low-level fog, which are most prevalent between storm systems. From May to October, the region's intense heat and sunlight lead to high ozone pollutant concentrations. Summer inversions are strong and frequent but are less troublesome than those that occur in the fall. Autumn inversions, formed by warm air subsiding in a region of high pressure, have accompanying light winds that do not allow adequate dispersion of air pollutants.

Both the US Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Rancho Cordova portion of the SVAB has been designated a nonattainment area for federal ozone and fine particulate matter ($PM_{2.5}$) air quality standards as well as for state ozone and coarse particulate matter (PM_{10}) standards (CARB 2013). The Rancho Cordova portion of the SVAB is designated an attainment or unclassified area for all other air quality standards (CARB 2013).

REGULATORY SETTING

The federal Clean Air Act of 1971 and the Clean Air Act Amendments (1977) established the national ambient air quality standards (NAAQS), which are promulgated by the EPA. The State of California has also adopted its own California ambient air quality standards (CAAQS), which are promulgated by CARB. The proposed project would occur in the Sacramento Valley Air Basin, which is under the air quality regulatory jurisdiction of the SMAQMD and is subject to the rules and regulations adopted by the air district to achieve attainment with the NAAQS and CAAQS. Some of the more pertinent regulatory requirements applicable to the proposed project are listed below.

Rule 402, Nuisance. The purpose of this rule is to limit emissions which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.

Rule 403, Fugitive Dust. The purpose of this rule is to require that reasonable precautions be taken so as not to cause or allow the emissions of fugitive dust from non-combustion sources from being airborne beyond the property line from which the emission originates. Best management practices promulgated under this rule include the following requirements:

- 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 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible 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).
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- 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.

DISCUSSION OF IMPACTS

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

No Impact. The SMAQMD coordinates the work of government agencies, businesses, and private citizens to achieve and maintain healthy air quality for the Sacramento area. The SMAQMD develops market-based programs to reduce emissions associated with mobile sources, processes permits, ensures compliance with permit conditions and with SMAQMD rules and regulations, and conducts long-term planning related to air quality.

As previously stated, the Rancho Cordova portion of the SVAB has been designated a nonattainment area for federal ozone and $PM_{2.5}$ air quality standards (CARB 2013). Since Sacramento County is classified as a nonattainment area for federal air quality standards, the SMAQMD is required to submit air quality plans and rate of progress milestone evaluations in accordance with the federal Clean Air Act. The SMAQMD air quality attainment plans and reports, which include the Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan (2008), the $PM_{2.5}$ State Implementation Plan (SIP) (2013), and the PM_{10} Implementation/Maintenance Plan and Re-Designation Request for Sacramento County (2010), present comprehensive strategies to reduce the ozone precursor pollutants (reactive organic gases [ROG] and nitrous oxides [NOx]) as well as particulate matter (PM) emissions from stationary, area, mobile, and indirect sources. The Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan includes the information and analyses to fulfill Clean Air Act requirements for demonstrating reasonable further progress toward attaining the 8-hour ozone NAAQS for the Sacramento region. In addition, this plan establishes an updated emissions inventory and maintains existing motor vehicle emission budgets for transportation conformity purposes. The $PM_{2.5}$ SIP attempts to fulfill EPA requirements to redesignate Sacramento County from nonattainment to attainment of the $PM_{2.5}$ NAAQS, and the PM_{10} Implementation/Maintenance Plan and Re-Designation Request for Sacramento County attempts to maintain PM_{10} attainment status.

According to the SMAQMD's (2011) Guide to Air Quality Assessment in Sacramento County, if the project results in a change in a designated land use and corresponding substantial increases in vehicle miles traveled (VMT), the resultant increase in VMT may be unaccounted for in regional emissions inventories contained in the regional air quality control plans described above, which are based on local planning documents and general plans. Substantial increases in VMT that are not accounted for in the emissions inventory of these air quality plans may conflict with the air quality plans and therefore result in a contribution to the region's existing air quality nonattainment and/or maintenance status. The project is identified in the Sacramento Area Council of Governments' (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and therefore was considered as part of the MTP/SCS conformity analysis.

Roadway projects do not directly generate vehicle trips. Rather, vehicle trips are generated by land use changes that may be indirectly influenced by transportation improvements. The proposed project would not result in increases in the rate of trips or VMT. Rather, the proposed improvements would improve traffic operations on Douglas Road to accommodate planned and approved development in the city. The Rancho Cordova General Plan assumed the widening of Douglas Road to six lanes to accommodate General Plan buildout. The General Plan EIR analyzed the effects of the roadway improvements identified in the General Plan, including Douglas Road widening, at a programmatic level. Additionally, the Rio Del Oro Specific Plan EIR assumed widening of Douglas Road to six lanes under cumulative (2030) conditions. As a result, implementation of the project would not result in an increase in VMT. No impact would occur.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less Than Significant Impact With Mitigation Incorporated. Implementation of the proposed project would result in short-term emissions from construction activities. The proposed project would not include the provision of new permanent stationary or mobile

source of emissions, and therefore, by its very nature, it will not generate substantial new emissions from project operations, as Douglas Road already exists. The project does not propose any buildings and therefore no permanent source of stationary source emissions. In addition, roadway improvements do not directly generate new vehicle trips, a predominant source of air pollutant emissions. Rather, vehicle trips are generated by land uses changes that may be indirectly influenced by transportation improvements. The proposed improvements would improve traffic operations on Douglas Road to accommodate planned and approved developments, which addressed mobile emissions in their environmental review under CEQA.

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. Implementation of the proposed project would result in the temporary generation of emissions resulting from site grading, paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. Demolition and renovation of pavement can also generate PM_{10} and $PM_{2.5}$ emissions. The proposed project would be subject to SMAQMD rules and regulations to reduce fugitive dust emissions and to mitigate potential air quality impacts, specifically Rule 403 (Fugitive Dust). Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SMAQMD Rule 403 is intended to reduce PM emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.

The predicted maximum daily construction-generated emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ associated with project construction are summarized in **Table 3.3-1**. The projected criteria pollutant emissions resulting from construction activities were estimated by Michael Baker International using the California Emissions Estimator Model (CalEEMod). CalEEMod contains default values for much of the information needed to calculate emissions. However, project-specific user-supplied information can also be used when it is available. For instance, the estimated maximum daily construction emissions account for several of the PM reduction measures required by SMAQMD Rule 403. Additionally, construction equipment specifications from SMAQMD's Roadway Construction Emissions Model version 7.1.5.1 are employed in order to obtain a more accurate list of equipment typically associated with roadway improvement activities. Results of the modeling conducted by Michael Baker International are included in **Appendix A**.

TABLE 3.3-1
PROJECT CONSTRUCTION EMISSIONS (MAXIMUM) POUNDS PER DAY (UNMITIGATED)

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$	CO
Site Preparation (grubbing/land clearing)	1.71	19.52	1.48	0.86	11.32
Grading	9.55	**105.73**	8.14	5.26	63.61
Drainage/Utilities/Subgrade Installation	5.86	49.93	3.94	2.78	44.38
Paving	3.35	25.23	1.84	1.55	18.76
SMAQMD Potentially Significant Impact Threshold	—	85 pounds/day	80 pounds/day	82 pounds/day	—
Exceed SMAQMD Threshold?	—	**Yes**	**No**	**No**	—

*Source: Emissions modeled by Michael Baker International using the CalEEMod computer program. See **Appendix A** for modeling outputs.*

As shown in **Table 3.3-1**, unmitigated emissions generated during the grading phase would exceed the SMAQMD's thresholds of significance for NOx emissions, which would be considered a potentially significant impact and require mitigation to reduce emissions to a level below the threshold. NOx emissions are primarily associated with use of diesel-powered construction equipment (e.g., graders, excavators, rubber-tired dozers, tractors, loaders, backhoes). Implementation of SMAQMD standard NOx-reducing measures (mitigation measures **MM 3.3.1** and **MM 3.3.2**) would reduce the amount of construction-generated pollutants to levels below the SMAQMD NOx threshold by requiring the most efficient equipment, as shown in **Table 3.3-2**.

TABLE 3.3-2
MITIGATED PROJECT CONSTRUCTION EMISSIONS (MAXIMUM) POUNDS PER DAY

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$	CO
Site Preparation (grubbing/land clearing)	0.86	16.72	0.78	0.50	13.75
Grading	3.35	77.39	3.64	2.45	61.04
Drainage/Utilities/Subgrade Installation	4.06	38.78	2.78	1.95	41.03
Paving	1.97	22.58	0.98	0.87	19.57
SMAQMD Potentially Significant Impact Threshold	—	85 pounds/day	80 pounds/day	82 pounds/day	—
Exceed SMAQMD Threshold?	—	**No**	**No**	**No**	—

*Source: Emissions modeled by Michael Baker International using the CalEEMod computer program. See **Appendix A** for modeling outputs.*

With implementation of mitigation measures **MM 3.3.1** and **MM 3.3.2**, emissions would not exceed SMAQMD thresholds and this impact would be less than significant.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?*

Less Than Significant Impact With Mitigation Incorporated. Due to the region's nonattainment status for ozone and particulate matter, the SMAQMD considers projects that are consistent with all applicable air quality plans intended to bring the basin into attainment for all criteria pollutants, and below SMAQMD significance thresholds of ozone precursor pollutants (i.e., ROG and NOx), to have less than significant cumulative impacts. As discussed in Issue a), the proposed project would not conflict with the Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan, the $PM_{2.5}$ SIP, or the PM_{10} Implementation/Maintenance Plan and Re-Designation Request for Sacramento County since the project would not result in an increase in VMT. As discussed in Issue b), with mitigation measures **MM 3.3.1** and **MM 3.3.2**, predicted emissions attributable to the proposed project would not exceed SMAQMD significance thresholds. Therefore, cumulative impacts would be less than significant per the SMAQMD significance thresholds, since the project would not conflict with applicable air quality plans or exceed such thresholds. The project's contribution would not be cumulatively considerable, and the impact would be considered less than significant.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Less Than Significant Impact With Mitigation Incorporated. Sensitive land uses are generally defined as locations where people reside or where the presence of air emissions could adversely affect the use of the land. Typical sensitive receptors include residents, schoolchildren, hospital patients, and the elderly. The proposed improvements would occur adjacent to an existing residential community to the south.

Sources of construction-related air toxics potentially affecting the sensitive receptors include off-road diesel-powered equipment. Construction would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminant emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic and would occur over several locations isolated from one another, although construction activities would occur within the relatively small area needed to widen Douglas Road (6,800 linear feet). CARB (2004) generally considers construction projects contained in an area of such size to represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated diesel PM, (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and (3) the reduced duration of construction activities compared to the development of larger sites. Additionally, mitigation measure **MM 3.3.1** reduces the amount of construction-generated diesel exhaust particulate matter and other pollutants by requiring the most efficient equipment. For instance, mitigation measure **MM 3.3.1** requires the reduction of NOx emissions by more than 20 percent and particulate matter by 45 percent. Furthermore, future development would be subject to and would comply with California regulations limiting the idling of vehicles to no more than 5 minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable diesel PM emissions.

For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics. Major freeways and major roadways, defined by CARB as facilities that accommodate more than 100,000 daily vehicle trips, are another source of TACs. Locating sensitive land uses such as residences, schools, or parks near major freeways and major roadways that accommodate more than 100,000 daily vehicle trips could result in negative health effects, as these roadways are sources of diesel PM. The Rancho Cordova General Plan EIR (2006b) projected approximately 24,000 vehicles per day on this portion of Douglas Road at General Plan buildout. Therefore, the proposed improvements would not result in impacts related to TACs due to roadway volumes. This impact is less than significant.

e) *Create objectionable odors affecting a substantial number of people?*

No Impact. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

Construction of the proposed project would involve the use of a variety of gasoline- or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel exhaust, may be considered objectionable by some people. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. Short-term construction activities would not expose a substantial number of people to frequent odorous emissions. Additionally, the proposed project would not result in the installation of any equipment that would be considered major odor-emission sources. Therefore, no impact would occur.

Mitigation Measures

MM 3.3.1 The project construction contractor shall provide a plan for approval by the SMAQMD demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction of the project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent California Air Resources Board fleet average. Acceptable options for reducing emissions may include use of late model engines (California Air Resources Board Tier 3 Certified or better[1]), low-emission diesel products,

[1] NOx emissions are primarily associated with use of diesel-powered construction equipment (e.g., graders, excavators, rubber-tired dozers, tractor/loader/backhoes). The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a

alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

Timing/Implementation: *The plan shall be submitted to the SMAQMD for review and approval prior to approval of improvement plans and shall be implemented during all grading and construction within the project area*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department; Sacramento Metropolitan Air Quality Management District*

MM 3.3.2 The project construction contractor shall ensure that emissions from all off-road diesel-powered equipment used do not exceed 40 percent opacity for more than 3 minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Noncompliant equipment shall be documented and a summary provided to the City Planning Department and the SMAQMD monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of construction, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed and the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this measure shall supersede other SMAQMD or state rules or regulations.

Timing/Implementation: *During all grading and construction within the project area*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department; Sacramento Metropolitan Air Quality Management District*

SECURITY PARK DRIVEWAY OPTION

Construction of the optional driveway, improvements along Tailings Drive to accommodate the driveway connection, and removal of the existing driveway would involve heavy equipment use, such as described and evaluated above. Heavy equipment use would slightly increase air emissions, although not substantially, and would result in a negligible addition to the unmitigated NOx emissions that exceed the SMAQMD threshold. However, with mitigation measures **MM 3.3.1** and **MM 3.3.2**, as described for the project, emissions would be reduced to below the threshold. PM_{10} and $PM_{2.5}$ emissions would result in a negligible increase to levels estimated for the project that are well below SMAQMD thresholds. Therefore, the driveway option would not result in any substantial change in criteria air pollutant emissions relative to the project that would be cumulatively considerable or conflict with applicable air quality plans identified in Item a) above. Construction diesel PM emissions would not represent a substantial health risk, even

result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.

when combined with project diesel PM emissions, because mitigation measures **MM 3.3.1** and **MM 3.3.2** would also apply to driveway construction, which would reduce diesel PM emissions. The transient diesel odors generated by heavy equipment would not differ from those of the project. For these reasons, the driveway option would not result in any significant air quality impacts requiring additional mitigation other than described for the project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

A biological resources assessment for the proposed project was prepared by ECORP (2016a). In addition, ECORP prepared a report for submittal to the US Fish and Wildlife Service (USFWS) to support Section 7 consultation (ECORP 2016b) and a proposal for mitigation of vernal pool branchiopod habitat impacts (ECORP 2016c). The following analysis incorporates the existing conditions description, analysis of project impacts, and mitigation measures presented in the ECORP reports, unless otherwise noted.

ENVIRONMENTAL SETTING

The majority of the project site is the existing Douglas Road. Roadside habitat is composed mainly of annual grassland, which consists mainly of non-native annual grasses; however, much of the area immediately to the south of the Security Park industrial complex is characterized by ruderal vegetation. There are no trees present on the project site, but several mature Fremont's cottonwood trees are located in close proximity along the northern site boundary. No special-status plants have been identified on the site or are expected to occur based on site surveys

and literature review. A wetland delineation completed in 2014 identified waters of the United States, consisting of 1.704 acres of vernal pool, seasonal wetland, seasonal wetland swale, seasonal stream, ephemeral drainage, and intermittent drainage. Habitats in the area are likely to support species that reside in vernal pool and wetland habitat, such as vernal pool branchiopods and other species that are able to use roadside annual grassland habitat (e.g., raptors and other birds).

DISCUSSION OF IMPACTS

a–b) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?*

Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. Special-status species and associated habitat are present on the project site and could be affected by the proposed project. The following describes the potential impacts on species and habitat and identifies mitigation measures to reduce impacts to less than significant.

Vernal Pool Branchiopods

The project area contains vernal pools, seasonal wetlands, and seasonal wetland swales that are considered potential habitat for listed vernal pool branchiopods including vernal pool fairy shrimp and vernal pool tadpole shrimp. The vernal pool tadpole shrimp is federally listed as endangered, and the vernal pool fairy shrimp is federally listed as threatened. While no protocol-level large vernal pool branchiopod surveys have been conducted for the project site, it is likely that federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp are present based on the habitats on-site, the location of the site within the USFWS-designated Mather Core vernal pool recovery area (Mather Core Area), and the close proximity to existing occurrences of these species. Based on an evaluation of current site conditions, ECORP determined that 0.444 acre of the impacted wetlands on-site (i.e., vernal pools, seasonal wetlands, and seasonal wetland swales) are potential habitat for these two species (ECORP 2016b). Thus, implementation of the project is assumed to result in direct impacts to the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Mitigation measure **MM 3.4.1** requires preservation and/or creation of comparable habitat at ratios that exceed 1:1, which would reduce impacts to a less than significant level.

Non-Listed Vernal Pool Invertebrates

The uplands surrounding the vernal pools, seasonal wetlands, and seasonal wetland swales are considered potential habitat for midvalley fairy shrimp, California linderiella, blennosperma vernal pool andrenid bee, hairy water flea, and Ricksecker's water scavenger beetle. These non-listed special-status invertebrates occupy similar habitats and vegetation communities as the listed vernal pool branchiopods. No surveys for these species have been conducted on-site. Implementation of the project would result in direct and indirect impacts to potential habitat for non-listed special-status invertebrates, which includes vernal pools, seasonal wetlands, seasonal wetland swales, and the

uplands surrounding them. Therefore, the project may result in potentially significant direct and indirect impacts on the non-listed listed vernal pool invertebrates. Mitigation measure **MM 3.4.1** requires creation of comparable habitat at a ratio that exceeds 1:1, which would reduce the proposed project's potential impact on non-listed vernal pool invertebrates to a less than significant level.

Western Spadefoot

The vernal pools and seasonal wetlands in the project area represent suitable habitat for western spadefoot. No surveys for this species have been conducted on-site. Implementation of the project would permanently remove potential habitat for western spadefoot. Western spadefoot, if they occur in the project area, could be indirectly affected by an increase in vehicular traffic on-site, which could result in mortality during dispersal or seasonal movements between aquatic and upland habitats. As a result, potential direct and indirect impacts to western spadefoot may be considered potentially significant. Mitigation measures **MM 3.4.3** and **MM 3.4.8d** require preconstruction surveys for western spadefoot and implementation of avoidance and protection measures before and during construction if western spadefoot is found. This would reduce impacts to western spadefoot to a less than significant level.

Western Pond Turtle

To date, no western pond turtle surveys have been conducted within the project area. The nearest extant California Natural Diversity Database (CNDDB) occurrence is approximately 1 mile from the project site. Potentially suitable habitat (Morrison Creek) is present adjacent to the project site, and the seasonal stream on-site may represent marginal habitat. Project implementation would fill the seasonal stream within the project area. Although the stream provides marginally suitable habitat, there is still potential for western pond turtles to occur. Thus, direct and indirect impacts to western pond turtle may be considered potentially significant. Mitigation measures **MM 3.4.4** and **MM 3.4.8d** require preconstruction surveys for western pond turtle and implementation of avoidance and protection measures before and during construction if western pond turtle is found. This would reduce impacts to western pond turtle to a less than significant level.

Swainson's Hawk and Other Raptors

Swainson's hawk, a species state-listed as threatened, is one of several raptors that are likely to forage in the project area. The nearest CNDDB occurrence of Swainson's hawk nesting is approximately 2 miles to the northwest of the project site. However, habitat for Swainson's hawk within the project area is marginal due to its location adjacent to Douglas Road and developed areas to the south. Swainson's hawk may nest in undeveloped areas nearby. The grassland on-site also represents foraging habitat for other protected raptors, including white-tailed kite and golden eagle. White-tailed kites, which is fully protected under the California Fish and Game Code, may forage in the project area, and trees to the north of the project area may represent habitat. Golden eagles, a California fully protected species and a species of special concern, may forage in the project area. All raptors and their nests are protected under California Fish and Game Code Section 3503.5. The grassland habitat present in the project area is considered foraging habitat for raptors, including Swainson's hawk. The project would directly impact grassland habitat. Implementation of the project would result in permanent impacts and temporary impacts (grading around Douglas Road) to 16.69 acres of grassland habitat present within the

project area. However, due to the size and shape of the project (a thin linear area of impact), and its location adjacent to an existing road and developed lands to the south, the existing habitat for raptors, including Swainson's hawk, is marginal. The project may result in potentially significant direct and indirect impacts on foraging habitat for Swainson's hawk and other raptors. Mitigation measures **MM 3.4.5a** and **MM 3.4.8d** require preconstruction surveys for active nests and avoidance and protection measures before and during construction if nests are found. Mitigation measure **MM 3.4.5.b** stipulates requirements for Swainson's hawk habitat mitigation to ensure 1:1 (or a lesser ratio, as determined through consultation with the California Department of Fish and Wildlife [CDFW]) mitigation for loss of foraging habitat. This would reduce impacts to Swainson's hawk and other raptors to a less than significant level.

Burrowing Owl

The grassland habitat present in the project area could be used for nesting by burrowing owl. The project would result in direct and indirect impacts to grassland habitat. Grading, paving, and development in the project footprint could indirectly affect nesting through conversion of natural vegetation cover. Implementation of the project would result in permanent impacts and temporary impacts (grading around roads and infrastructure) to grassland habitat present within the project area. Thus, the project may result in significant direct and indirect impacts to burrowing owl. Mitigation measures **MM 3.4.6** and **MM 3.4.8d** require preconstruction surveys for active burrowing owl burrows and implementation of avoidance, protection, and compensatory mitigation before and during construction if burrows are found. This would reduce impacts to burrowing owl to a less than significant level.

Other Nesting Birds

Grassland in the project area provides suitable nesting habitat for other nesting birds, such as grasshopper sparrow. Individuals of this species may nest within the project area. While a potential loss of a few individuals is not likely to result in a substantial effect on their populations, if nesting individuals are present during construction, adverse impacts to individuals could occur. Nesting birds are protected under the Migratory Bird Treaty Act (MBTA) and under California Fish and Game Code Section 3503. Thus, direct and indirect impacts of project implementation on these species may be considered potentially significant. Mitigation measures **MM 3.4.7** and **MM 3.4.8d** require preconstruction surveys for nests and avoidance and protection measures if nests are found. This would reduce impacts to other nesting birds, including grasshopper sparrow, to a less than significant level.

c) *Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?*

Less Than Significant Impact With Mitigation Incorporated. Implementation of the project would result in direct impacts on potential waters of the United States and waters of the State resulting from the placement of fill material into federally jurisdictional waters of the United States, including wetlands and waters of the State. A total of 0.536 acre of potential waters of the United States would be directly impacted (filled), consisting of 0.362 acre of vernal pool, 0.121 acre of seasonal wetland, 0.007 acre of seasonal wetland swale, and 0.046 acre of seasonal stream. The loss and degradation of waters of the United States and waters of the State constitute a substantial adverse effect on

waters of the United States as defined by Clean Water Act Section 404 and the State's Porter-Cologne Act. Implementation of mitigation measures **MM 3.4.8a, MM 3.4.8b, MM 3.4.8c**, and **MM 3.4.8d** would reduce the potential impacts to the loss and degradation of waters of the United States to a less than significant level. Implementation of the project may also have a significant indirect impact on waters of the United States. The implementation of best management practices described in mitigation measure **MM 3.4.8c** would avoid significant indirect impacts on adjacent wetlands during construction activities (e.g., erosion and sedimentation).

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less Than Significant Impact. Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated and unusable. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors as these features can provide cover and access across a landscape. The annual grassland habitat present to the north of the project is currently used as rangeland and is proposed to be preserved in perpetuity as part of the Rio Del Oro development. Because of the barrier to movement posed by the existing Douglas Road as well as the residential development to the south of the project site, the likelihood of wildlife species using the area as a migratory corridor is low. The majority of areas to the south of the project are already developed. There are no established migratory routes through the project area that are vital for the movement of any resident or migratory fish or wildlife species or population. Impacts would be less than significant.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less Than Significant Impact With Mitigation Incorporated. Rancho Cordova General Plan Policies NR.1.1 and NR.2.2 provide for protection of special-status species and their habitats and for minimization of impacts on wetlands, respectively. As discussed above, project construction activities would directly and indirectly impact federally protected wetlands and may have an effect on special-status species and habitat. Implementation of mitigation measures **MM 3.4.1** through **MM 3.4.8d** would reduce the project's impacts to less than significant levels by ensuring preservation and/or creation of comparable habitat at ratios that exceed 1:1 of vernal pool branchiopod habitat, necessary permits are obtained, preconstruction surveys and construction worker awareness training are performed, sensitive habitat and species are avoided or protected, and potential impacts are mitigated in accordance with established regulations and/or standards, as appropriate.

f) *Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. Currently, there is no adopted habitat conservation plan (HCP) in Rancho Cordova or Sacramento County. No provisions of an adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan apply to the project site. The project would not conflict with an adopted HCP. There would be no impact.

Mitigation Measures

MM 3.4.1 ***Vernal Pool Branchiopods.*** Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the City shall ensure a Biological Opinion (BO) from the US Fish and Wildlife Service (USFWS) through Section 7 consultation with the US Army Corps of Engineers (USACE) as part of the Clean Water Act Section 404 permitting process has been obtained. The construction contractor shall adhere to all conditions outlined in the BO and the Section 404 permit, including avoidance, preservation, and compensation for impacts to vernal pool branchiopod habitat.

If the South Sacramento Habitat Conservation Plan is not approved prior to approval of the final grading/improvement plan, the City shall ensure compensation for impacts to vernal pool branchiopod habitat (0.444 acre) as described in the table below has been provided.

Douglas Road Phase 2 Vernal Pool Habitat Mitigation					
Mitigation	Preservation		Creation		
	Branchiopod Habitat		Vernal Pool		Non-Vernal Pool*
Impact Acreage	0.444 ac		0.362 ac		0.174 ac
Proposed Mitigation Location	Option 1: Klotz Property	Option 2: Bryte Ranch	Option 1: Gill Ranch Unallocated	Option 2: Clay Station Mitigation Bank	Cosumnes Floodplain Mitigation Bank
Proposed Mitigation Ratio	2:1	2:1	1.5:1	1.5:1	1.5:1
Credits to Be Purchased	0.888	0.888	0.543	0.543	0.261

Source: ECORP 2016c
** Non-vernal pool consists of seasonal wetland, swale, and seasonal stream and would be mitigated as Wetland Mosaic at Cosumnes Floodplain Mitigation Bank.*

Timing/Implementation: *Prior to approval of grading plan*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.2 ***Non-Listed Vernal Pool Branchiopods***. If the South Sacramento Habitat Conservation Plan is not approved prior to approval of the final grading and improvement plan, the City shall ensure compensation for impacts to non-vernal pool branchiopod habitat (0.362 acre) as described in the table in mitigation measure MM 3.4.1 has been provided.

Timing/Implementation: *Prior to approval of grading plan*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.3 ***Western Spadefoot***. A qualified biologist shall conduct a preconstruction western spadefoot survey within 48 hours of the initiation of construction activity within suitable tadpole habitat (e.g., vernal pools, seasonal wetlands, and drainages

with standing water) for western spadefoot. If no western spadefoot individuals are found during the preconstruction survey, the biologist shall document the findings in a letter report to the CDFW and the City, and no further mitigation shall be required. If western spadefoot individuals are found, the qualified biologist shall consult with the CDFW to determine appropriate avoidance measures.

Implement mitigation measure MM 3.4.8d (Conduct Environmental Awareness Training for Construction Employees).

Timing/Implementation: *Prior to ground disturbance (survey) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.4 ***Western Pond Turtle***. A qualified biologist shall conduct a preconstruction western pond turtle survey within 48 hours prior to initiation of construction activity within suitable habitat for western pond turtle. If no western pond turtles are found during the preconstruction survey, the biologist shall document the findings in a letter report to the CDFW and the City, and no further mitigation shall be required. If western pond turtles are found, the qualified biologist shall capture and relocate the turtles to a suitable preserved location in the vicinity of the project site.

Implement mitigation measure MM 3.4.8d (Conduct Environmental Awareness Training for Construction Employees).

Timing/Implementation: *Prior to ground disturbance (survey) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.5a ***Swainson's Hawk and Other Raptors.*** To mitigate impacts on Swainson's hawk and other raptors, a qualified biologist shall conduct preconstruction surveys and to identify active nests on and within the project area if construction occurs during March through August. Surveys for Swainson's hawk shall be conducted on and within 0.25 mile of the project area, and surveys for other nesting raptors shall be conducted on and within 300 feet of the project area. The surveys shall be conducted and no less than 14 days and no more than 30 days before the beginning of construction. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk. If no active/occupied nests are found, no further mitigation is required.

If active nests are found, impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in coordination with the CDFW that reducing the buffer would not result in nest abandonment. CDFW guidelines recommend implementation of 0.25- or 0.5-mile-

wide buffers, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with the CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

Implement mitigation measure MM 3.4.8d (Conduct Environmental Awareness Training for Construction Employees).

Timing/Implementation: *Prior to ground disturbance (survey) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.5b ***Swainson's Hawk Mitigation Plan***. To mitigate for the loss of Swainson's hawk foraging habitat, the City shall ensure permanent impacts to foraging habitat are identified and that a Swainson's hawk mitigation plan is prepared and implemented. The plan shall include, but not be limited to, the following requirements:

- Prior to ground disturbance, the City shall ensure suitable Swainson's hawk foraging habitat is secured to ensure 1:1 mitigation (or other agreed-upon ratio) of habitat value for Swainson's hawk foraging habitat that is permanently lost as a result of the project, as determined by the City after consultation with the CDFW and a qualified biologist.

- The 1:1 habitat value (or other agreed-upon ratio) shall be based on Swainson's hawk nesting distribution and an assessment of habitat quality, availability, and use within the project area. The mitigation ratio shall be consistent with the 1994 California Department of Fish and Game's Swainson's hawk guidelines included in the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (Swainson's Hawk Technical Advisory Committee 2000). These guidelines call for the following mitigation ratios for loss of foraging habitat in these categories: 1:1 if within 1 mile of an active nest site, 0.75:1 if over 1 mile but less than 5 miles, and 0.5:1 if over 5 miles and less than 10 miles from an active nest. Such mitigation shall be accomplished through purchase of credits at an approved mitigation bank, or the transfer of fee title or perpetual conservation easement. If non-bank mitigation is proposed, the mitigation land shall be located within the known foraging area and within Sacramento County. The City, after consultation with the CDFW, will determine the appropriateness of the mitigation land.

- The City shall ensure said Swainson's hawk mitigation land is transferred, through either conservation easement or fee title, to a third-party, nonprofit conservation organization (Conservation Operator), with the City and the CDFW named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City, after

consultation with the CDFW. After consultation with the CDFW and the Conservation Operator, the City shall approve the content and form of the conservation easement. The City, the CDFW, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to ensure compliance with the terms of the easement.

- The City shall ensure an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement is established. If an endowment is used, either the endowment funds shall be submitted to the City for impacts on lands within the City's jurisdiction to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without the prior written approval of the City and the CDFW.

- If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and the CDFW. The City Planning Department shall ensure that mitigation habitat established for impacts on habitat within the City's Planning Area is properly established and is functioning as habitat by conducting regular monitoring of the mitigation site(s) for the first 10 years after establishment of the easement.

Timing/Implementation: *Prior to ground disturbance (survey) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.6 ***Burrowing Owl***. To mitigate impacts on burrowing owl, a qualified biologist shall conduct preconstruction surveys to identify active burrows within the project area. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction. The preconstruction survey shall follow the protocols outlined in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012). Burrowing owls may be present on the project site during any season.

If active burrows are found, the City shall ensure a mitigation plan is prepared before any ground-disturbing activities occur, and the City shall consult with the CDFW. The mitigation plan may consist of purchase of appropriate credits at a CDFW-approved mitigation bank, passive relocation (installation of one-way doors during the non-breeding season, September 1 through January 31) on all burrows to allow owls to exit, but not reenter); burrow owl exclusions during the breeding season (February 1 through August 31) may only be used if a qualified biologist verifies that the burrow does not contain eggs or dependent young. If active burrows contain eggs and/or young, no construction shall occur within a minimum of 50 meters (164 feet) of the burrow until young have fledged. The

mitigation plan may also include construction of artificial burrows in the project vicinity, as needed.

Implement mitigation measure MM 3.4.8d (Conduct Environmental Awareness Training for Construction Employees).

Timing/Implementation: *Prior to ground disturbance (survey and mitigation plan) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.7 ***Other Nesting Birds***. A qualified biologist shall conduct a preconstruction nesting bird survey of all areas associated with construction activities on the project site within 14 days prior to commencement of construction during the nesting season (February 1 through August 31). If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist in consultation with the CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary. Preconstruction nesting surveys are not required for construction activity outside of the nesting season.

Implement mitigation measure MM 3.4.8d (Conduct Environmental Awareness Training for Construction Employees).

Timing/Implementation: *Prior to ground disturbance (survey) and during construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.8a ***Wetlands and Waters of the United States/State – Clean Water Act Section 404 Permit and Section 401 Water Quality Certification***. Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the City shall ensure a CWA Section 404 Permit from the USACE and a CWA Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board (RWQCB) are obtained. The construction contractor shall adhere to all conditions outlined in the permits. The City shall ensure that the project replaces, restores, or enhances on a "no net loss" basis (in accordance with the USACE and the Central Valley RWQCB) the acreage of all wetlands and other waters of the United States that would be removed, lost, and/or degraded due to project implementation. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to the USACE, the Central Valley RWQCB, and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes.

Timing/Implementation: *Prior to approval of grading and improvement plan*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.8b ***Implement CDFW 1602 Streambed Alteration Agreement***. Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the City shall ensure CDFW Streambed Alteration Agreement Notification No. 1600-2016-0094-R2 for impacts to features under CDFW jurisdiction (i.e., seasonal stream) within the project area is executed and implemented. The construction contractor shall adhere to all conditions outlined in the Streambed Alteration Agreement.

Timing/Implementation: *Prior to approval of grading and improvement plan*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.8c ***Identify and Protect Environmentally Sensitive Areas Adjacent to the Project Site***. Prior to any groundbreaking activities, a professional wetland biologist shall flag the boundaries of all wetlands outside of the project boundary. These brightly colored pin-flags will allow workers to be aware of the location of the protected habitat. The construction contractor shall also create earthen berms along the road-facing edges of the impacted wetlands in order to divert runoff from the road and reduce effects on the unimpacted portions of the wetlands.

Timing/Implementation: *Prior to groundbreaking activities*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.4.8d ***Conduct Environmental Awareness Training for Construction Employees***. Prior to beginning construction activities, a qualified biologist shall develop and conduct environmental awareness training for construction employees. The training will describe the importance of on-site biological resources, including wetlands and other waters of the United States, special-status wildlife habitats, potential nests of special-status birds, and adjacent protected areas such as the planned Rio Del Oro Wetland Preserve to the north of the project site. The biologist will also explain the importance of other responsibilities related to the protection of wildlife during construction, such as inspecting open trenches and looking under vehicles and machinery prior to moving them to ensure there are no lizards, snakes, small mammals, or other wildlife that could become trapped, injured, or killed in construction areas or under equipment.

The environmental awareness program will be provided to all construction personnel to brief them on the life history of special-status species in or adjacent to the project area, the need to avoid impacts on sensitive biological resources, any terms and conditions required by state and federal agencies, and the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor's superintendent will ensure that the personnel receive the mandatory training before starting work. An environmental awareness handout that describes and illustrates sensitive

resources to be avoided during project construction and identifies all relevant permit conditions will be provided to each person.

Timing/Implementation: *Prior to groundbreaking*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

SECURITY PARK DRIVEWAY OPTION

The proposed new driveway connection to align with Borderlands Drive is within the biological resources assessment study area evaluated in the ECORP (2016a) report. A small area of seasonal wetland would be directly affected and is accounted for in the direct wetlands fill impact acreage total. Impacts on the seasonal wetland would be mitigated through implementation of mitigation measure **MM 3.4.8a** through **MM 3.4.8d**. Preconstruction surveys and appropriate mitigation for special-status species and habitat, as identified in mitigation measures **MM 3.4.1** through **MM 3.4.8d**, would apply if this option were implemented, and no additional analysis or mitigation is required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.5. 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) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The City of Rancho Cordova General Plan (2006a) summarizes the cultural resources and historic resources settings in the city. Sites, buildings, and artifacts associated with Native Americans, historic gold mining and railroad operations, and others exist within the city limits. Eight structures of state and local importance are found in the city, none of which are on or in the vicinity of the project site.

The Rio Del Oro Specific Plan EIR/EIS included an evaluation of potential archaeological and historical resources within the Specific Plan area, which includes the project site and the area immediately to the north. According to the Draft EIR/EIS (City of Rancho Cordova 2006c, p. 3.9-3), there is one recorded cultural resource within the Specific Plan area designated as CA-SAC-308H and consisting of portions of the dredge tailings present in the area. This resource was previously evaluated and determined to be ineligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). In addition, through consultation with local tribes, two areas in the Specific Plan area were determined to have increased sensitivity for cultural resources. However, these sites are not located on or adjacent to the project site. The Specific Plan Draft EIR/EIS also identified numerous historical sites within the Specific Plan area, none of which are located on or adjacent to the project site (City of Rancho Cordova 2006c, Figure 3.9-2).

DISCUSSION OF IMPACTS

a) *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*

Less Than Significant Impact. There are no structures on the project site, and the area proposed for improvement has been heavily disturbed through the construction of the existing roadway and adjacent drainage ditch. As described previously, the Rio Del Oro Specific Plan Draft EIR/EIS concluded that the previously recorded cultural resource site located in the Specific Plan area (CA-SAC-308H) is not eligible for listing on the NRHP or the CRHR and is not considered "historical" within the CEQA definition of the term.

Additionally, the Specific Plan Draft EIR/EIS included an inventory and evaluation of historic buildings and sites in the Specific Plan area. No such sites were identified on or adjacent to the project site. Therefore, the proposed project would have a less than significant impact on historical resources.

b, d) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

Less Than Significant Impact With Mitigation Incorporated. As described previously, the Rio Del Oro Specific Plan EIR/EIS identified two areas of increased sensitivity for cultural resources as a result of consultation with a local tribe. However, these areas are not located on or adjacent to the project site (City of Rancho Cordova 2006c, Figure 3.9-2). Although the project site has been heavily disturbed through previous construction activities, making the presence of cultural resources unlikely, previously undiscovered subsurface cultural resources could be present on the site. Implementation of the proposed project would include ground-disturbing construction activities that could result in the inadvertent disturbance of such resources. Mitigation measure **MM 3.5.1** would reduce this impact to a less than significant level.

The City initiated consultation with applicable California Native American tribes on the proposed project in compliance with Assembly Bill (AB) 52 on May 9, 2016. The United Auburn Indian Community (UAIC) of the Auburn Rancheria responded by letter dated July 14, 2016, that the UAIC would like to consult on the project (UAIC 2016).

c) *Disturb any human remains, including those interred outside of formal cemeteries?*

Less Than Significant Impact With Mitigation Incorporated. Based on the location and disturbed nature of the project site, it is not anticipated that any human remains would be discovered during construction activities. However, because of the potential to inadvertently discover or disturb human remains during any ground-disturbing activity, mitigation measure **MM 3.5.2** is included to reduce this impact to a less than significant level.

Mitigation Measures

MM 3.5.1 In accordance with California Public Resources Code Section 5097.5, the following measure will be implemented during construction and included in the construction contract:

> If buried archaeological or paleontological resources, such as chipped or ground stone, historic debris, building foundations, human bone, fossils, or fossil traces, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist or paleontologist can access the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City, affected California Native American tribes, and all other appropriate agencies.

Timing/Implementation: *Throughout project construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

MM 3.5.2 In order to mitigate for the potential discovery or disturbance of any human remains, the protocol of California Health and Safety Code Section 7050.5(b) will be adhered to as follows:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.
>
> If the remains are determined to be Native American, City policy would dictate that the procedures outlined in CEQA Section 15064.5(d) and (e) be followed.

Timing/Implementation: *Throughout project construction*

Enforcement/Monitoring: *City of Rancho Cordova Planning Department and Public Works Department*

SECURITY PARK DRIVEWAY OPTION

Construction of the driveway would occur in an undeveloped area between Douglas Road and Tailings Drive. This area, along with the larger Rio Del Oro area, has been evaluated for the presence of cultural resources, as described for the project. No resources have been identified in the immediate project area. Because construction of the driveway would involve ground disturbance, implementation of mitigation measures **MM. 3.5.1** and **MM 3.5.2** would ensure appropriate identification and protection of resources, should any previously unknown resources be discovered during construction. No new significant impacts have been identified requiring the need for additional mitigation.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.6. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, defined in Section 1803.5.3 of the 2013 California Building Code, creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Regional Geology

Rancho Cordova is located in the Great Valley geomorphic province, which is primarily described as a relatively flat alluvial plain, about 50 miles wide and 450 miles long, with thick sequences of sedimentary deposits of Jurassic through Holocene age (City of Rancho Cordova 2006b). The Great Valley geomorphic province is surrounded by mountain ranges, with the Klamath and Cascade mountain ranges to the north, the Sierra Nevada to the east, and the California Coast Range to the west.

Topography

The project site is located in the Sacramento Valley, which is primarily flat to gently rolling land with no hills or valleys. In the Rancho Cordova Planning Area, slopes range from 0 to 8 percent.

Faults and Seismicity

No known active faults or Alquist-Priolo earthquake hazard zones occur in Rancho Cordova or Sacramento County (CGS 2013). According to the Fault Activity Map of California, the nearest faults to the city with activity within the last 200 years are the Concord, Hayward, and Cleveland Hill faults. The closest known fault zone is the Willows Fault Zone, located northwest of the city. The closest known active subsurface fault is the Dunnigan Hills fault, located in northern Yolo County, to the northwest of the city (CGS 2002).

Soils

According to the Web Soil Survey provided by the US Department of Agriculture, Natural Resources Conservation Service, the project site is underlain by Red Bluff loam and Redding gravelly loam soils. Soils in the project area range from moderately well drained to well drained, with a depth of more than 80 inches to the water table (USDA-NRCS 2015).

DISCUSSION OF IMPACTS

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:*

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. No known active faults or Alquist-Priolo earthquake hazard zones occur in the vicinity of the project site. Thus, the project would have no impact in regard to fault rupture hazards.

ii) Strong seismic ground shaking?

Less Than Significant Impact. Although the project area is not located in an Alquist-Priolo earthquake hazard zone, major seismic events occurring in adjacent areas, especially the San Francisco Bay Area, could cause the project site to experience ground shaking. The proposed project will not result in the development of habitable structures or other development that would typically cause an increase in population which could be adversely affected by seismic ground shaking. The proposed project would widen and improve an existing roadway to accommodate approved development in the project area. The roadway improvements would be designed in accordance with the City of Rancho Cordova Improvement Standards and Standard Construction Specifications, which would ensure they are constructed to withstand anticipated seismic forces for the area.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction is most likely to occur in deposits of water-saturated alluvium or similar deposits of artificial fill. The project site is underlain by Red Bluff loam and Redding gravelly loam, which are well drained and moderately well drained soils. Additionally, the depth to the groundwater table and aquifer system in the City's Planning Area is generally found to be greater than 50 feet (City of Rancho Cordova 2006b). The potential for liquefaction in the project area is considered to be low based on the soil types, depth to groundwater, and ground shaking potential in the city.

iv) Landslides?

No Impact. The project site and vicinity are relatively flat. The possibility of landslide is unlikely, as there are no topographical features in the vicinity of the project site that would create a risk of exposure to landslide.

b) *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact. Project construction would involve soil-disturbing activities such as land clearing, grading, paving, and landscaping that could result in erosion. Slopes in the Rancho Cordova Planning Area range from 0 to 8 percent, and project improvements would be constructed on a relatively flat surface. Construction activities associated with the proposed project may result in short-term wind-driven erosion of soils. The proposed project would comply with the City's Land Grading and Erosion Control Ordinance (Title 16, Chapter 16.44 of the Municipal Code) that establishes procedures to minimize erosion, sediment, dust, and other pollutant runoff during construction activities. The project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction permitting process, which would include implementation of a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMPs) to protect water quality. Examples of typical construction best management practices in SWPPPs include using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drainages and surface waters. The discharger must also install structural controls, such as sediment control, as necessary, which would constitute Best Available Technologies to achieve compliance with water quality standards. Compliance with these requirements would ensure that site development activities do not result in the movement of unwanted material into waters on or off the project site.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

Less Than Significant Impact. The project site is located on relatively flat terrain in an area not known to be susceptible to landslides, lateral spreading, subsidence, liquefaction, or collapse. For these reasons, the proposed project would have a less than significant impact.

d) *Be located on expansive soil, as defined in Section 1803.5.3 of the 2013 California Building Code, creating substantial risks to life or property?*

Less Than Significant Impact. Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations, pavement, and underground utilities installed in these soils are subjected to large uplifting forces caused by the swelling. Red Bluff loam soils, which underlie a portion of the project site, have a moderate to high shrink-swell potential (USDA-NRCS 2015; City of Rancho Cordova 2006b). Thus, without proper measures taken, heaving and cracking of the proposed roadway, infrastructure, and frontage improvements could result. However, the proposed project has been designed by a registered engineer in accordance with the City of Rancho Cordova Improvement Standards and Standard Construction Specifications and in consideration of the underlying soil conditions, which would ensure there would not be substantial risks to life or property.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The project does not propose the use or construction of septic tanks or alternative wastewater disposal systems. Such facilities are not needed, as the project would be limited to roadway improvements.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

Less Than Significant Impact. Paleontological resources include fossil remains, as well as fossil localities and formations that have produced fossil material in other nearby areas. According to the City of Rancho Cordova General Plan Draft EIR (2006b), a search of the University of California Museum of Paleontology collections database did not identify any evidence of significant paleontological resources in the Rancho Cordova Planning Area and the area does not appear to be sensitive for the presence of paleontological resources. Consequently, this would be considered a less than significant impact.

SECURITY PARK DRIVEWAY OPTION

The driveway would be susceptible to the same seismic and soils hazards as the project, and no aspects of the design would require special engineering methods. Construction activities to remove the existing driveway and construct the new driveway would result in ground disturbance that would be a potential source of erosion. Like the project, driveway construction would be required to comply with the City's Land Grading and Erosion Control Ordinance and implement a SWPPP and best management practices to control erosion. Therefore, the addition of the driveway option would not result in any substantial change in the less than significant geology and soils impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.7. 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 any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Since the early 1990s, scientific consensus holds that the world's population is releasing greenhouse gases (GHGs) faster than the earth's natural systems can absorb them. These gases are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as "the greenhouse effect," human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to a warming of the earth and has the potential to severely impact the earth's climate system.

While often used interchangeably, there is a difference between the terms "climate change" and "global warming." According to the National Academy of Sciences, climate change refers to any significant, measurable change of climate lasting for an extended period of time that can be caused by both natural factors and human activities. Global warming, on the other hand, is an average increase in the temperature of the atmosphere caused by increased GHG emissions. Use of the term "climate change" is becoming more prevalent because it encompasses all changes to the climate, not just temperature.

To fully understand global climate change, it is important to recognize the naturally occurring greenhouse effect and to define the GHGs that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs associated with land use development that are contributing to the greenhouse effect are CO_2, CH_4, and N_2O.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. For instance, methane traps over 21 times more heat per molecule than CO_2, and N_2O absorbs 310 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weighs each gas by its global warming potential (GWP). Expressing GHG emissions in

CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

REGULATORY SETTING

California has adopted various administrative initiatives and also enacted a variety of legislation relating to climate change, much of which sets aggressive goals for GHG emissions reductions in the state. The most important initiative is the California Global Warming Solutions Act of 2006 (AB 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), which was signed into law in September 2006 after considerable study and expert testimony before the legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a GHG emission limit based on 1990 levels, to be achieved by 2020. The adoption of AB 32 provided a clear mandate that climate change should be included in the environmental review process for development proposals.

Senate Bill (SB) 375 (codified at Government Code and Public Resources Code[2]), signed in September 2008, provides for a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations (MPOs) to incorporate a sustainable communities strategy in their regional transportation plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities. The MPO with jurisdiction in the project area is SACOG. As noted previously, the project is identified in SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy.

DISCUSSION OF IMPACTS

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

Less Than Significant Impact. Implementation of the proposed project would result in short-term emissions from construction activities at the project site. Emissions resulting from construction of the proposed project are presented in **Table 3.7-1**. As shown in **Table 3.7-1**, construction associated with the proposed project could produce an additional 290 metric tons of CO_2e. The SMAQMD significance threshold for CO_2e is 1,100 metric tons per year; thus, the proposed project would not exceed the SMAQMD significance threshold for GHG emissions. Once construction of the proposed traffic facility improvements is complete, the generation of GHG emissions would cease.

TABLE 3.7-1
PROJECT CONSTRUCTION GHG EMISSIONS – METRIC TONS PER YEAR

Construction Phase	CO_2e
Construction Total	290
SMAQMD Potentially Significant Impact Threshold	1,100
Exceeds SMAQMD Threshold?	**No**

*Source: Emissions modeled by Michael Baker International using the CalEEMod computer program. See **Appendix B** for modeling outputs.*

[2] Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01 as well as Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.

The proposed project will not include the provision of new permanent stationary or mobile sources of emissions. Therefore, by its very nature, the project will not generate quantifiable GHG emissions from project operations. In addition, roadway improvements do not directly generate vehicle trips, a predominant source of GHG emissions. Rather, vehicle trips are generated by land use changes that may be indirectly influenced by transportation improvements. The proposed improvements would provide improved traffic operations on Douglas Road. Once the proposed improvements are implemented, there will be no resultant increase in automobile trips to the area because a widened Douglas Road will not require daily visits. For these reasons, impacts are considered less than significant.

b) *Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. The proposed project is consistent with SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy, which, among other goals, is intended to reduce traveler time spent in congestion and reduce GHG emissions. The project is subject to compliance with AB 32, which is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the State Legislature determined the necessary GHG reductions for California to make in order to sufficiently offset its contribution to the cumulative climate change problem to reach 1990 levels. AB 32 is the only legally mandated requirement for the reduction of GHG emissions. As such, compliance with AB 32 is the adopted basis on which a lead agency can base its significance threshold for evaluating the project's GHG impacts. As identified above, the proposed project would not surpass the SMAQMD greenhouse gas significance threshold of 1,100 metric tons per year of CO_2e, which was developed with the purpose of complying with the requirements of AB 32. SMAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the greenhouse gas emissions will normally not be cumulatively considerable under CEQA. Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the State's ability to meet its goals of reduced statewide GHG emissions under AB 32. Therefore, the proposed project would not conflict with AB 32, and there is no significant impact.

SECURITY PARK DRIVEWAY OPTION

Removal of the existing driveway and construction of the new driveway would involve the use of heavy equipment, which would be a source of GHG emissions. However, emissions would be negligible due to the small disturbance footprint. Project emissions are well below the SMAQMD threshold, and the addition attributable to the driveway option would not increase GHG emissions to levels that would exceed the threshold. Therefore, the addition of the driveway option would not result in any substantial change in the less than significant greenhouse gas impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

According to the State Water Resources Control Board's (SWRCB) GeoTracker website (2015), the area immediately north of the current Douglas Road corridor contains numerous hazardous material contamination sites. This area is part of the Rio Del Oro Specific Plan area, which has a history of hazardous materials use, including gold dredging, rocket testing, and disposal of treated groundwater. The Rio Del Oro Specific Plan EIR/EIS (City of Rancho Cordova 2006c) identified those portions of the Specific Plan area that will require further evaluation and remediation prior to development. None of these areas are located within or adjacent to the project site. Additionally, the Draft EIR/EIS concluded that based on previous studies, the dredge tailings present in the Specific Plan area do not contain toxic levels of trace elements (such as mercury).

Mather Airport, located approximately 2.5 miles west of the project site, is the nearest public use airport facility to the project site. There are no private airstrips in the vicinity of the project site.

DISCUSSION OF IMPACTS

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. The proposed project would not include the routine transport, use, or disposal of hazardous materials that could create a significant hazard to the public. Hazardous materials (such as oil, fuel, and solvents) would be used during construction activities for minor equipment maintenance. All equipment fueling and major maintenance activities would be performed off-site. Any use of hazardous materials would be in compliance with all applicable local, state, and federal standards associated with the handling of hazardous materials, which would minimize the potential for exposure and hazards. The Rancho Cordova General Plan EIR (2006b) found that implementation of Rancho Cordova General Plan policies and associated action items, as well as adherence to all federal, state, and local regulations regarding the transport of hazardous materials, would reduce impacts associated with the routine transportation of hazardous materials on Planning Area roadways to less than significant. As noted previously, the widening of Douglas Road was assumed as part of General Plan buildout. Consequently, risks associated with hazardous materials transport, use, and disposal would be less than significant.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less Than Significant Impact. As described previously, the area north of the project site contains sites with known hazardous materials contamination. However, none of these sites is located within or adjacent to the project site. Additionally, the Rio Del Oro Specific Plan Draft EIR/EIS concluded that the dredge tailings present in the Specific Plan area do not contain toxic levels of trace elements (such as mercury). Therefore, it is not anticipated that project construction workers could be exposed to any soil contamination. Furthermore, construction workers would not be exposed to contaminated groundwater, as project-related excavation activities would not reach groundwater levels in the project area, which typically range between 50 and 160 feet below the ground surface (City of Rancho Cordova 2006c, p. 3.13-19). There are no structures on the project site requiring demolition, so workers would not be exposed to hazardous building materials, such as asbestos or lead paints. Therefore, the project would not expose workers, the public, or the environment to a significant hazard through reasonably foreseeable upset and accident conditions.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. There are no existing or proposed schools within one-quarter mile of the project site. The closest schools to the project site are Bright Beginnings Preschool and Childcare, located approximately 0.5 mile south of the project site, and Sunrise Elementary School, located approximately 0.75 mile southwest of the project site.

d) *Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less Than Significant Impact. The provisions of Government Code Section 65962.5 are commonly referred to as the Cortese List. As described previously, the area immediately north of Douglas Road is located within the Rio Del Oro Specific Plan area, which is identified on multiple hazardous materials contamination databases. However, as described in the discussion for Issue b), the portion of the Specific Plan area included in the project site does not contain any hazardous materials contamination. Furthermore, the project does not involve the construction of any habitable structures. Therefore, project implementation would not result in a significant hazard to the public or the environment.

e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, result in a safety hazard for people residing or working in the project area?*

No Impact. The nearest airport/airstrip to the project site is Mather Airport, located approximately 2.5 miles west of the project site. Thus, the project would not be located within 2 miles of an airport and is not within the Mather Airport Comprehensive Land Use Plan area (SACOG 1997). Furthermore, the project does not propose any habitable structures or features that would impact airport operations. The project would not result in any safety hazards related to airport operations.

f) *For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?*

No Impact. There are no private airstrips in the vicinity of the project site.

g) *Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The City of Rancho Cordova implements the County of Sacramento emergency response program, including the County of Sacramento Emergency Operations Plan and the Sacramento County Evacuation Plan. The City will require the contractor to coordinate with local fire and police departments prior to any lane closures or detours, thereby minimizing potential interference with emergency response and evacuation during construction. Operation of the project roadway following construction would improve emergency access in the area.

h) *Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Less Than Significant Impact. Currently, the project site is surrounded by vacant land, consisting of annual grasslands, and suburban residential development. The City's General Plan Land Use Map identifies planned development north and south of the project site including residential and commercial land uses. Rancho Cordova is not located in a designated Fire Hazard Severity Zone (Cal Fire 2008). Furthermore, the proposed project consists of roadway improvements that will not result in new development which would induce population growth in the area. As described previously, the City will require the contractor to coordinate with local fire and police departments prior to any lane closures or detours to ensure continuous emergency access in the area. In the event of a fire, the

Sacramento Metropolitan Fire District would provide fire and emergency services to the project area.

SECURITY PARK DRIVEWAY OPTION

Construction of the driveway option would involve the use of hazardous materials, and activities would be required to comply with applicable regulations, as described for the proposed project. The alignment for the driveway is in an undeveloped area between Douglas Road and the Security Park complex. While there are known sources of contamination in the vicinity of the project, they do not extend in this area. During construction of the driveway project, emergency access to the Security Park development and along Douglas Road will be maintained at all times. The City will require the contractor to coordinate with the fire and police departments prior to lane closures and detours. Therefore, the addition of the driveway option would not result in any substantial change in the less than significant hazards and hazardous materials impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.9. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located within the boundaries of the Lower American River watershed (Sacramento River Watershed Program 2013). The Lower American River watershed is included in the American River subregion of the larger Sacramento River watershed. The Lower American River watershed is the smallest watershed of the American River subregion, located at the subregion's southern edge. The project site is relatively flat and covers an area of well drained and moderately well drained soils. Douglas Road at the project site is lined by roadside ditches that collect stormwater runoff from the roadways.

Groundwater

According to the hydrology component of the Rancho Cordova General Plan EIR, the project site is located within the boundaries of the Sacramento Valley Groundwater Basin and the South American (or Central Area) Subbasin (City of Rancho Cordova 2006b).

Floodplain

The project site is not located within a 100-year floodplain (City of Rancho Cordova 2006a).

REGULATORY SETTING

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) enforce California statutes, which are equivalent to or more stringent than the federal statutes related to water quality. The RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. In the project area, the Central Valley RWQCB is responsible for protecting surface waters and groundwater from both point sources of pollution (i.e., discharge from a pipe, ditch, or other well-defined source) and non-point sources (i.e., diffuse sources with no discernible distinct point of source, often referred to as runoff or polluted runoff from agriculture, urban areas, mining, construction sites, and other sites). The City of Rancho Cordova has a current NPDES General Permit, reissued by the Central Valley RWQCB in 2008, which regulates stormwater discharges associated with construction activities. Preparation of a stormwater pollution prevention plan would be required for this project to minimize polluted runoff during construction.

DISCUSSION OF IMPACTS

a) *Violate any water quality standards or waste discharge requirements?*

Less Than Significant Impact.

Construction Water Quality Impacts

Proposed construction activities would disturb site soils, potentially resulting in soil erosion and sedimentation of downstream waterways. Additionally, construction activities would require the storage and use of hazardous materials and other urban pollutants such as gasoline, diesel fuel, oils, solvents, and trash, which could enter drainages and degrade downstream water quality and/or violate applicable water quality standards or waste discharge requirements.

The State Water Resources Control Board requires dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ). Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation.

The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan. The SWPPP should contain a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways,

stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list best management practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of the best management practices.

In addition, measures would be included in the grading plans to minimize erosion potential and water quality degradation of the project area in accordance with Rancho Cordova Municipal Code Title 16, Chapter 16.44, Land Grading and Erosion Control. Chapter 16.44 establishes administrative procedures, minimum standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, disruption of existing drainage, and related environmental damage caused by land clearing activities, grading, filling, and land excavation. Additionally, the State has published a set of BMPs for both pre- and post-construction periods, which would be applied to the project. The City would identify the appropriate BMPs for the proposed project. Compliance with the provisions of the best management practices and with Municipal Code Chapter 16.44 would reduce impacts associated with water quality standards and discharge requirements to a less than significant level.

Operational Water Quality Impacts

The proposed project consists of widening a segment of Douglas Road and constructing frontage improvements on its northern side. Impervious surface area would be increased on Douglas Road; thus, the types, quantities, and timing of contaminant discharges in stormwater runoff would be altered relative to existing conditions. The current configuration of the roadway includes a developed stormwater collection system on the south side of the roadway, including curb, gutter, and storm drain inlets. The north side of the roadway drains to undeveloped shoulders, with ditches in some portions of the alignment. The proposed project would include construction of curb, gutter, and storm drain inlets on the north side of the roadway and would connect to the existing storm drainage system established on the south side of the road.

The proposed project would be subject to the requirements of NPDES Stormwater Permit No. CAS617002, which requires that the City impose water quality and watershed protection measures for all roadways and drainage facilities and prohibits discharges from causing violations of applicable water quality standards or from resulting in conditions that create a nuisance or water quality impairment in receiving waters. The NPDES permit requires a stormwater pollution prevention plan to be developed and implemented and the SWPPP to identify best management practices for construction and operation in project design. Compliance with the City's NPDES permit would reduce operational water quality impacts to a less significant level.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Less Than Significant Impact. The proposed project involves the widening of a segment of Douglas Road and construction of improvements on its northern side. These improvements would increase the overall impervious surface area within the site, which

will alter the rate of infiltration at the project site. However, given the size of the project, impacts to groundwater recharge would not be substantial. Furthermore, the project would have no long-term water demand that could contribute to a depletion of the region's groundwater supplies.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less Than Significant Impact. The proposed project would not result in the alteration of the course of a stream or river. Widening Douglas Road would result in an increase in impervious surface area; however, it would not substantially alter the existing drainage pattern of the project site, given that Douglas Road currently exists and the project would tie into the existing drainage system. Nonetheless, the proposed project would be required to implement appropriate BMPs to prevent erosion and control sedimentation during construction. Additionally, the proposed project would be subject to Chapter 16.44 of the City's Municipal Code, which establishes administrative procedures, minimum standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, disruption of existing drainage, and related environmental damage caused by land clearing activities, grading, filing, and land excavation. Compliance with the provisions of the BMPs and with Municipal Code Chapter 16.44 would reduce impacts associated with erosion and siltation to a less than significant level.

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?*

Less Than Significant Impact. The proposed project consists of widening a segment of Douglas Road and construction of improvements along its northern side, which would result in minimal alteration of the site's existing drainage pattern. The resulting increase in impervious surface area may result in an increase in the rate or amount of surface runoff from the project site. However, this increase would not be substantial such that it would result in flooding on- or off-site. No streams or rivers would be altered as a result of the proposed project.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less Than Significant Impact. The project proposes to widen Douglas Road and construct frontage improvements on its northern side including curb, gutter, and sidewalk. Thus, the project would result in an increase in impervious surface area. The segment of Douglas Road proposed for widening and improvement is currently lined by a roadside ditch that collects stormwater runoff from the roadway. The proposed additional lane and frontage improvements would add new pavement in the project area, but would not be expected to substantially increase runoff. The anticipated increase in runoff would not exceed the capacity of existing or planned stormwater drainage systems. Compliance with the provisions of the BMPs and with Municipal Code Chapter 16.44 would reduce impacts associated with water quality to a less than significant level.

f) *Otherwise substantially degrade water quality?*

Less Than Significant Impact. Refer to the discussion of Issue a). The project is not anticipated to substantially degrade water quality once completed and implementation of the City's NPDES permit occurs.

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

No Impact. The project site is not located within a 100-year flood hazard area (City of Rancho Cordova 2006a) and the project does not propose the construction of any housing.

h) *Place structures within a 100-year flood hazard area that would impede or redirect flood flows?*

No Impact. Refer to discussion of Issue g). The proposed project is not located within a 100-year flood hazard area.

i) *Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam?*

No Impact. The proposed project site is located outside the Sacramento Levee flood risk area and the Folsom Dam flood risk area (DWR 2011). Therefore, in the event of a levee or dam failure, the project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.

j) *Inundation by seiche, tsunami, or mudflow?*

No Impact. The project site is not located near any ocean coast or seiche hazard areas and would not involve the development of residential or other sensitive land uses in or near these areas. Therefore, the project would not expose people to potential impacts involving seiche or tsunami. Furthermore, the project area is essentially flat and is not at risk of inundation from mudflow.

SECURITY PARK DRIVE OPTION

The driveway would be developed north of Douglas Road at Borderlands Drive through an undeveloped area connecting to Tailings Drive in the Security Park complex. This area is not at risk of flood hazards. There would be little, if any, change in impervious surface that would alter groundwater recharge potential, change drainage patterns, or create additional stormwater runoff because this option would remove the existing at-grade driveway and replace it with a similar facility. Removal of the existing driveway, construction of the new driveway, and improvements at Tailings Road to conform the new driveway would disturb site soils, potentially resulting in soil erosion and sedimentation of downstream waterways. Additionally, construction activities would require the storage and use of hazardous materials. Identical to the proposed project, the potential for water quality degradation as a result of construction activities would be minimized through implementation of the City's Land Grading and Erosion Control Ordinance, a SWPPP, and best management practices to control pollutants in construction site stormwater runoff. Therefore, the addition of the driveway option would not result in any substantial change in the less than significant water quality impacts identified for the proposed project.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.10. LAND USE AND PLANNING. Would the project:					
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site consists of a 6,800-foot segment of Douglas Road between Rancho Cordova Parkway and Americanos Boulevard in eastern Rancho Cordova. Currently, land north of the project site is primarily vacant and planned for future wetland preservation as part of the Rio Del Oro Specific Plan. Land north of the eastern portion of the project site is currently developed as a security park or planned for future industrial park development. Land south of the project site has been developed or is planned for future residential development as part of the SunRidge Specific Plan. The Sacramento County General Plan Land Use Diagram identifies land east of Grant Line Road at the project site as agricultural cropland (Sacramento County 2011). Improvements to Douglas Road were envisioned in both the City of Rancho Cordova General Plan and the Rio Del Oro Specific Plan.

DISCUSSION OF IMPACTS

a) *Physically divide an established community?*

No Impact. The project proposes to widen an existing roadway and construct associated frontage improvements in accordance with the City's General Plan Circulation Element. The proposed improvements are anticipated to improve pedestrian access and safety in the project area. The project would not physically divide the surrounding community.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The proposed project would require right-of-way acquisition along Douglas Road to widen and improve the roadway within the project site. Both the Rancho Cordova General Plan and the Rio Del Oro Specific Plan assumed the widening of Douglas Road to six lanes to accommodate planned development. Therefore, the project would be consistent with applicable land use plans.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

No Impact. Currently, no habitat conservation plans or natural community conservation plans are in place in the project region or applicable to the project site. The South Sacramento Habitat Conservation Plan is a planned conservation plan that will cover Rancho Cordova, including the project location. However, the plan has not yet been adopted.

SECURITY PARK DRIVEWAY OPTION

Under this option, the driveway that provides access to the Security Park development would be relocated slightly east, with the alignment through an undeveloped area connecting to the eastern alignment of Tailings Road. It would provide continued access to the Security Park development. There would be no changes to Borderlands Drive south of Douglas Road where there is residential development. No physical division of an existing community would occur. The driveway would be consistent with existing roadway infrastructure and would not require or result in changes in land use. There would be no land use impacts.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.11. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Geologist to inventory and classify selected mineral resources in California. Historically, minerals such as pumice, gold, construction aggregate, kaolin clay, and common clay have been extracted in the region. More recently, the Rancho Cordova Planning Area has seen mineral extraction for coarse gravel construction aggregates and clay. The two mining operations in the city limits and the five mining operations in the larger Planning Area are not located within or near the project area.

DISCUSSION OF IMPACTS

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. The project site is not located in a mineral resource zone (City of Rancho Cordova 2006b). No impact would occur related to the availability of a known mineral resource that would be of value to the region and the residents of the state.

b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

No Impact. There are no active mining operations in the vicinity of the project site that would be adversely impacted by the project. Therefore, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site.

SECURITY PARK DRIVEWAY OPTION

The area where the driveway could be constructed is in an area immediately north of Douglas Road where there are no mining operations and is not in a mineral resource zone. Identical to the proposed project, there would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.12. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, exposure of people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located in the eastern portion of Rancho Cordova. The area north of the site is undeveloped with the exception of Security Park within which buildings are set back from Douglas Road more than 500 feet. The area south of the site is developed as a suburban residential neighborhood with a continuous sound wall along its Douglas Road frontage. Motor vehicle traffic is the primary contributor to the existing noise environment at the project site and in the surrounding area. Typical noise-sensitive land uses include receptors such as residences, parks, schools, and/or hospitals.

DISCUSSION OF IMPACTS

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?*

Less Than Significant Impact. The proposed project consists of widening a segment of Douglas Road and constructing associated frontage improvements along the northern side of the roadway. The area north of the project site contains undeveloped grassland and Security Park to the northeast, where are set back from the roadway more than 500 feet. Much of the undeveloped area to the north is planned for residential development. The area south of the project site is largely developed as a suburban residential neighborhood, separated from the project area by a sound wall.

Construction noise typically occurs intermittently and varies depending on the nature or phase (e.g., demolition/land clearing, grading, and excavation) of construction. Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels for individual pieces of construction equipment are summarized in **Table 3.12-1**.

TABLE 3.12-1
CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level (dBA L_{max} at 50 feet)
Bulldozers	82
Heavy Trucks	81
Backhoe	78
Pneumatic Tools	85
Concrete Pump	81
Loader	79
Roller	80
Compressor	78
Crane	81
Drill Rig	79
Paver	77
Hoe Ram	90

Source: FHWA 2008

During construction, noise from equipment would cause short-term localized increases in ambient noise levels. The actual noise levels at any particular location would depend on a variety of factors, including the type of construction equipment or activity involved, distance to the source of the noise, obstacles to noise that exist between the receptor and the source, time of day, and similar factors. The project's work hours will comply with the City's Noise Ordinance (Municipal Code Title 6, Chapter 6.68) and with Policy N.1.2 as identified in the Rancho Cordova General Plan (2006a). Because noise increases during construction will be temporary, intermittent, and limited to the permitted hours as specified in the City's Noise Ordinance and General Plan, and because of the presence of a sound wall protecting the only sensitive receptors in the project area, impacts would be less than significant.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. Minor groundborne vibrations and noise could result from proposed grading and excavation activities. However, the use of unusual grading equipment or blasting that would result in the creation of excessive groundborne vibration is not anticipated to be required for the proposed project. While some localized vibrations may occur, such vibrations are expected to be minor and would not affect the closest sensitive receptors, the residential neighborhood south of the site. Once the project's construction phase is complete, no excessive ground vibrations or noises are expected to occur.

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less Than Significant Impact. The proposed project consists of widening an existing roadway and construction of associated frontage improvements. The project is intended to accommodate anticipated traffic generated by the approved development projects in the area but would not generate traffic in and of itself. The Rancho Cordova General Plan EIR assumed widening of Douglas Road and predicted noise levels of 66 dBA at 100 feet from the centerline along this segment in the cumulative scenario. The Rio Del Oro Specific Plan EIR/EIS predicted noise levels of approximately 72 dBA at 50 feet from the centerline along this segment in the cumulative scenario, which is generally consistent with assumptions for the General Plan. Developments in the vicinity of the project, including those in the Rio Del Oro Specific Plan area and the SunRidge Specific Plan area, considered noise levels along this roadway segment in their development plans. As noted previously, existing development on the south side of Douglas Road has constructed sound walls to reduce the effects of noise from Douglas Road. Rio Del Oro Specific Plan EIR/EIS mitigation measure MM 3.16-5 requires acoustical studies to develop noise attenuation measures for any proposed construction of on-site noise-sensitive land uses. Future development to the north would similarly incorporate design features, such as buffers or sound walls, to prevent exposure of sensitive receptors to noise levels in excess of noise standards. The proposed project would not result in noise levels that exceed those anticipated from development in the area.

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less Than Significant Impact. Refer to discussion of Issue a). During construction, temporary increases in ambient noise levels would occur in the vicinity of the project site. The area north of the site is undeveloped with the exception of a security park within which buildings are set back from Douglas Road by more than 500 feet. The area south of the site that is developed as a suburban residential neighborhood is behind a continuous sound wall. Project construction noise would be intermittent, temporary, and limited to daytime hours in accordance with the City's Noise Ordinance (Municipal Code Title 6, Chapter 6.68) and with Policy N.1.2 as identified in the Rancho Cordova General Plan. Thus, project construction noise would not substantially affect nearby receptors.

e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, exposure of people residing or working in the project area to excessive noise levels?*

No Impact. The nearest airport to the project site is Mather Airport, which is a public use airport facility located approximately 2.5 miles west of the project site. The project is a road project that is not sensitive to noise and it would not be exposed to excessive noise levels from this airport.

f) *For a project located within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?*

No Impact. There are no private airstrips in the project vicinity.

SECURITY PARK DRIVEWAY OPTION

Removal of the existing driveway, installation of the new driveway, and improvements to connect to Security Park Drive would generate noise during construction. The types of equipment would be the same as the proposed project. Identical to the proposed project, construction noise would be intermittent, temporary, and limited to daytime hours in accordance with the City's Noise Ordinance (Municipal Code Title 6, Chapter 6.68) and with Policy N.1.2 as identified in the Rancho Cordova General Plan. Construction noise would not substantially affect nearby receptors. The addition of the driveway option would not result in any substantial change in the less than significant noise impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.13. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Rancho Cordova is expected to experience significant population growth into the year 2030. The city began to develop at an increasing rate as a result of an increase of jobs in Sacramento County, and in 2003, Rancho Cordova became the 478th incorporated city in California. The Rancho Cordova General Plan EIR (2006b) estimates a 3.9 percent annual increase in population to occur between 2005 and 2025, with an estimated population of 169,081 in the year 2025. According to the California Department of Finance's (2015) City/County Population Estimates, as of January 1, 2015, the city had a total population of 162,899.

DISCUSSION OF IMPACTS

a) *Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

No Impact. The proposed project does not include the construction of any new homes or businesses, nor does it include the extension or construction of new roadways that could potentially induce growth. Furthermore, both the Rancho Cordova General Plan and the Rio Del Oro Specific Plan assumed the widening of Douglas Road to six lanes to accommodate planned development. There would be jobs associated with the construction of the road improvements, but these would be short term and unlikely to result in any substantial growth in the population of the city. Thus, the project would not directly or indirectly induce substantial population growth above that which is anticipated from development in the area.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed project is limited to roadway improvements and would not displace any residential structures.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed project is limited to roadway improvements and would not displace any people.

SECURITY PARK DRIVEWAY OPTION

The driveway would connect Borderlands Drive to Tailings Drive through an undeveloped area within Security Park. It would continue to provide access to the existing nonresidential development only and would not extend to any other undeveloped location. Identical to the proposed project, this option would not result in displacement of people or housing or growth inducement. There would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Rancho Cordova receives general public safety and law enforcement services from the Rancho Cordova Police Department, contracted through the Sacramento County Sheriff's Department. Fire protection and emergency medical response services in the city are provided by the Sacramento Metropolitan Fire District. Four school districts in the Rancho Cordova Planning Area provide educational services: Folsom Cordova Unified School District, Elk Grove Unified School District, Sacramento City Unified School District, and San Juan Unified School District (City of Rancho Cordova 2006b). The nearest schools to the proposed project are Bright Beginnings Preschool and Childcare, located approximately 0.5 mile south of the project site, and Sunrise Elementary School, located approximately 0.75 mile southwest of the project site. The nearest park is a small neighborhood park in the residential neighborhood south of the project site. The City maintains the public facilities, including those intended for bicycle and pedestrian uses.

DISCUSSION OF IMPACTS

a, b) *Fire protection, police protection?*

Less Than Significant Impact. Refer to the discussion of Issue 3.13(a). The project would not induce population growth or otherwise increase demand for fire protection or law enforcement services. The City will require the project contractor to coordinate with the fire and police departments prior to any lane closures or detours in order to maintain emergency access in the project area. No new or physically altered public facilities would be required.

c–e) *Schools, parks, other public facilities?*

No Impact. Refer to the discussion of Issue 3.13(a). The project would not induce population growth or otherwise increase student enrollment or the demand for recreational or other public services. No new or physically altered public facilities would be required.

SECURITY PARK DRIVEWAY OPTION

A new driveway that would replace an existing driveway that provides access to Security Park and that would serve the same purpose would not result in the need for fire or police protection services. The City will require the project contractor to coordinate with the fire and police departments prior to any lane closures or detours in order to maintain emergency access in Security Park. Therefore, the addition of the driveway option would not result in any substantial change in the less than significant public services impacts identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.15. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City's General Plan (2006a) contains goals and policies established to conserve existing national, state, and regional recreation areas and to encourage development of additional recreational opportunities to meet Rancho Cordova's needs. There are no parks or other recreational facilities in the project vicinity. The nearest park is a small neighborhood park in the residential neighborhood south of the site.

DISCUSSION OF IMPACTS

a, b) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. Refer to discussion of Issue 13.3(a). The proposed project would not induce population growth or otherwise increase the use of existing parks or other recreational facilities. Furthermore, the project does not include or require the construction of any new or the expansion of any existing parks or recreational facilities.

SECURITY PARK DRIVEWAY OPTION

Replacement of the existing driveway with a new driveway connecting to Tailings Drive would have no impact on recreation facilities because none exist in the alignment. The driveway option would not induce population growth. There would be no impact on recreation facilities.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.16. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project proposes to widen a 6,800-foot long segment of Douglas Road between Rancho Cordova Parkway and Americanos Boulevard. This segment currently consists of two travel lanes and a center turn lane. There are existing Class II bicycle lanes in both directions west of Security Park Drive. No bus stops or routes exist on Douglas Road in the vicinity of the project site. Douglas Road extends from Mather Boulevard in the Mather Reuse Area to Grant Line Road at the eastern Rancho Cordova city limits.

DISCUSSION OF IMPACTS

a) *Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant*

components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

No Impact. The project would widen and improve Douglas Road, thus improving circulation and access in the project area. As noted previously, widening of Douglas Road was assumed in the City's General Plan Circulation Element and was assumed as part of the cumulative condition analysis in the Rio Del Oro Specific Plan EIR/EIS. Therefore, the project is consistent with the transportation planning for the city and would not conflict with other modes of transportation.

b) *Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Less Than Significant Impact. Planned development north and south of Douglas Road will increase the population in the project area and the use of the Douglas Road corridor. The proposed project is intended to accommodate this future growth and improve traffic operations along this roadway segment. The project will not conflict with level of service standards, travel demand measures, or other established standards.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact. Mather Airport is a public use airport facility located approximately 2.5 miles west of the project site. The project would not induce growth or otherwise increase traffic levels at this or other area airports. Furthermore, the project does involve the construction of any tall structures that could interfere with air traffic patterns or cause substantial safety risks.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact. The proposed project includes widening of a segment of Douglas Road and construction of associated frontage improvements along the northern side of the roadway. The proposed improvements would be designed in accordance with the City of Rancho Cordova Improvement Standards and Standard Construction Specifications to ensure they are designed properly and would not result in any hazards to motorists or pedestrians. The project would not result in any incompatible uses that could result in safety hazards.

e) *Result in inadequate emergency access?*

Less Than Significant Impact. During construction of the proposed project, traffic handling may require temporary lane closures or detours. Emergency access through the project area will be maintained at all times. The City will require the contractor to coordinate with the fire and police departments prior to lane closures and detours. This impact is considered less than significant.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

No Impact. The proposed project includes frontage improvements along the northern side of a segment of Douglas Road. These improvements would include construction of a new sidewalk. In addition, the project would extend the existing on-road bicycle lane currently present in a portion of the project site east to Americanos Boulevard. These improvements would be consistent with the City's General Plan Circulation Element and would improve pedestrian and bicycle circulation in the project area.

SECURITY PARK DRIVEWAY OPTION

There would be no increase in traffic volumes leading to Security Park on the new driveway because no development is proposed, and the driveway is intended only to replace the existing driveway. The optional driveway would align with Borderlands Drive to the south, which would eliminate the offset access points that currently exist. Access to Security Park would still be directly off Douglas Road, and the driveway would not create any design hazards (e.g., site distance). The driveway would include sidewalks, which would connect to the sidewalk on the north side of Douglas Road, which would improve pedestrian access to Security Park. No transit routes would be affected by the driveway relocation. During construction of the driveway project, emergency access to the Security Park development and along Douglas Road will be maintained at all times. The City will require the contractor to coordinate with the fire and police departments prior to lane closures and detours. The driveway option would have less than significant impacts or no impacts related to traffic and transportation, as identified for the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.17. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Water

Water services within the city limits are currently supplied by four water providers: Golden State Water Company (American State Water Company), California American Water, Sacramento County Water, and City of Folsom Water District. The project site is located in the area served by the Golden State Water Company.

Wastewater Service

Wastewater services are provided by the Sacramento Regional County Sanitation District (SRCSD) in the urbanized portions of Sacramento County, such as in Rancho Cordova. The SRCSD is a publicly owned wastewater agency serving over one million people in the major Sacramento metropolitan area through its three contributing agencies: the City of Folsom, the City of Sacramento, and Sacramento County Sanitation District 1 (CSD-1). Service for the project area would be provided by CSD-1.

Solid Waste Service

Solid waste collection and service in the city is under the jurisdiction of the Sacramento County Public Works Agency, Waste Management and Recycling. Solid waste collected within the city limits is typically delivered to Sacramento County's Kiefer Landfill, located at the intersection of Grant Line Road and Kiefer Boulevard. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County. It is the only landfill facility in Sacramento County permitted to accept household waste from the public. Waste is accepted from the general public, businesses, and private waste haulers.

At present, the landfill, which comprises approximately 1,084 acres, is the only landfill in Sacramento County's jurisdiction that is permitted to accept solid waste for disposal. The Kiefer Landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year (City of Rancho Cordova 2006b). The landfill has an estimated remaining capacity of 112,900,000 cubic yards and a projected closure date of 2064 (CalRecycle 2015).

Electrical, Telephone, and Natural Gas Services

The Sacramento Municipal Utility District (SMUD) provides electricity service within the Rancho Cordova city limits. The Pacific Gas and Electric Company (PG&E) also supplies electricity as well as natural gas to customers within the city limits. Telephone services in the city are provided by AT&T and SureWest.

DISCUSSION OF IMPACTS

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact. The proposed project would be limited to roadway and frontage improvements and would not generate any wastewater or require wastewater treatment capacity. Therefore, the proposed project would not exceed the wastewater treatment requirements of the Central Valley Regional Water Quality Control Board.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. The proposed project would be limited to roadway and frontage improvements and would not require a permanent water supply. Therefore, the proposed project would not require or result in the construction of new or expansion of existing water or wastewater treatment facilities.

c) *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less Than Significant Impact. The project would result in a negligible increase in impervious surface area and would not substantially increase stormwater runoff. Runoff currently drains to a roadside ditch along the northern side of the roadway. The proposed project would include construction of drainage inlets and an underground drainage line. The construction of these improvements is assumed as part of the project

description and is evaluated throughout this Initial Study. Potential impacts include temporary visual impacts, disturbance of biological and/or cultural resources, and temporary construction noise and/or traffic, which would be less than significant or reduced to less than significant with mitigation identified in this Initial Study. There would be no additional impacts associated with construction of drainage improvements.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Less Than Significant Impact. Landscaping was assumed as part of approved developments to the north and south, so there would be no increase in water demand beyond that already assumed for approved development. There would be a temporary need for water during construction to control dust. However, no increase in demand for long-term water supply would be generated.

e) *Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?*

No Impact. The proposed roadway and frontage improvements do not include any uses that would generate wastewater. Therefore, the proposed project would not affect the capacity of the local wastewater treatment provider.

f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

No Impact. The proposed project would not require any demolition, so there would be no demolition debris generated. Solid waste generated during construction would be minimal. The Kiefer Landfill has a total capacity of 117.4 million cubic yards with a remaining capacity of 112.9 million cubic yards and an estimated closure date of 2064 (CalRecycle 2015). Given the substantial remaining capacity and limited solid waste generated by project construction, there would be sufficient permitted capacity to accommodate project-generated waste.

g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

No Impact. The proposed project does not include any components that would result in an increased demand for solid waste disposal and would be in compliance with federal, state, and local statutes and regulations related to solid waste.

SECURITY PARK DRIVEWAY OPTION

Removal of the existing driveway and development of the new driveway in another location would have minimal effect on stormwater runoff and storm drainage facilities because there would little change in the amount of roadway surface. Similar to the proposed project, impacts would be less than significant. All remaining impacts (water, wastewater, and solid waste) would be as described for the proposed project because operation of the new driveway would not require a permanent water supply, result in wastewater flows, or generate solid waste.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.18. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, 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?	☐	☐	☒	☐

DISCUSSION OF IMPACTS

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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?*

Less Than Significant Impact With Mitigation Incorporated. As discussed in subsection 3.4, Biological Resources, project construction activities would directly and indirectly impact federally protected wetlands and may have an effect on special-status species and habitat. Implementation of mitigation measures **MM 3.4.1** through **MM 3.4.8d** would reduce the project's impacts to less than significant levels by ensuring vernal pool branchiopod habitat is mitigated, necessary permits are obtained, preconstruction surveys and construction worker awareness training is performed, sensitive habitat and species are avoided or protected, and potential impacts are mitigated in accordance with established regulations and/or standards, as appropriate.

The potential for discovery or disturbance of historical, archaeological, or paleontological resources or human remains is not anticipated. However, implementation of mitigation measures **MM 3.5.1** and **MM 3.5.2** (included in subsection 3.5, Cultural Resources, of this IS/MND) would reduce impacts to a less than significant level.

b) *Does the project have impacts that are individually limited, but cumulatively considerable?*

Less Than Significant Impact With Mitigation Incorporated. CEQA Guidelines Section 15064(i) requires that a lead agency consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must therefore be conducted in connection with the effects of past projects, other current projects, and probable future projects.

The proposed project would include improvements to Douglas Road that were anticipated in the General Plan and the General Plan EIR, as well as in the Rio Del Oro Specific Plan EIR/EIS. Because the proposed project would improve traffic circulation and operations on Douglas Road consistent with the goals and policies of the City of Rancho Cordova General Plan (2006a), the project would not make a significant contribution to cumulatively adverse impacts associated with existing or proposed development projects in the Rancho Cordova area beyond what was evaluated in the General Plan EIR and the Rio Del Oro Specific Plan EIR/EIS. Construction of the proposed project, along with other construction in Rancho Cordova and south Sacramento County, would contribute to cumulative environmental impacts. However, the proposed project's contribution would be minimal and would be mitigated to levels that would be less than cumulatively considerable with implementation of mitigation measures **MM 3.3.1** and **MM 3.3.2** to reduce air pollutant emissions during construction, **MM 3.4.1** through **MM 3.4.8d** to reduce impacts on special-status species and habitat and wetlands/waters of the United States, and **MM 3.5.1** and **MM 3.5.2** that address the potential for inadvertent discovery of previously unknown cultural resources. Impacts are considered less than significant.

c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Less Than Significant Impact. During operation, the proposed project would not create a significant hazard to the public or the environment, as it would improve traffic circulation and bicycle access along Douglas Road. Construction of the proposed project will result in a temporary, periodic increase in ambient noise levels and greenhouse gas emissions. However, because noise and greenhouse gas emission increases during construction will be temporary, intermittent, and limited to daytime hours, this is considered a less than significant impact.

SECURITY PARK DRIVEWAY OPTION

As described in subsections 3.1 through 3.17 above, the driveway option would not result in new or substantially increased impacts or require new or additional mitigation beyond that identified. As such, it would not result in substantial environmental degradation, including reduction of fish and wildlife habitat or loss of cultural resources, would result in no cumulatively considerable impacts, and would not otherwise results in substantial adverse effects on people, either directly or indirectly.

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APPENDICES

APPENDIX A – AIR QUALITY EMISSIONS

Douglas Road Phase 2

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	340.00	1000sqft	7.81	340,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction Phasing per Roadmod v. 7.1.5.1

Off-road Equipment - Equipment per Roadmod v 7.15.1

Off-road Equipment - Roadmod equipment

Off-road Equipment - Roadmod equipment

Off-road Equipment - Roadmod equipment specifications

Grading -

Construction Off-road Equipment Mitigation - Rule 403. PM reduction percentages per SCAQMD CEQA Handbook

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	7/14/2016	7/13/2016
tblConstructionPhase	PhaseStartDate	6/3/2016	6/2/2016
tblGrading	AcresOfGrading	105.00	70.00
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards

tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	9.5601	105.7325	63.6141	0.0975	2.8168	5.3323	8.1492	0.4326	4.9091	5.2671	0.0000	9,827.5702	9,827.5702	2.8440	0.0000	9,887.2931
Total	**9.5601**	**105.7325**	**63.6141**	**0.0975**	**2.8168**	**5.3323**	**8.1492**	**0.4326**	**4.9091**	**5.2671**	**0.0000**	**9,827.5702**	**9,827.5702**	**2.8440**	**0.0000**	**9,887.2931**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	6.0501	77.3925	61.0514	0.0975	1.3815	2.5089	3.7780	0.3497	2.4901	2.8398	0.0000	9,827.5702	9,827.5702	2.8440	0.0000	9,887.2931
Total	**6.0501**	**77.3925**	**61.0514**	**0.0975**	**1.3815**	**2.5089**	**3.7780**	**0.3497**	**2.4901**	**2.8398**	**0.0000**	**9,827.5702**	**9,827.5702**	**2.8440**	**0.0000**	**9,887.2931**

	ROG	NOx	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	**36.71**	**26.80**	**4.03**	**0.00**	**50.96**	**52.95**	**53.64**	**19.16**	**49.28**	**46.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation (grubbing-land clearing)	Site Preparation	1/29/2016	3/10/2016	5	30	
2	Grading	Grading	3/11/2016	4/21/2016	5	30	
3	Drainage/Utilities/Subgrade Installation	Building Construction	4/22/2016	6/2/2016	5	30	
4	Paving	Paving	6/2/2016	7/13/2016	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 70

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation (grubbing-land clearing)	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation (grubbing-land clearing)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Drainage/Utilities/Subgrade Installation	Cranes	0	7.00	226	0.29
Drainage/Utilities/Subgrade Installation	Forklifts	0	8.00	89	0.20
Drainage/Utilities/Subgrade Installation	Generator Sets	1	8.00	84	0.74
Drainage/Utilities/Subgrade Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Drainage/Utilities/Subgrade Installation	Welders	0	8.00	46	0.45
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Site Preparation (grubbing-land clearing)	Crawler Tractors	1	8.00	208	0.43
Site Preparation (grubbing-land clearing)	Excavators	2	8.00	162	0.38
Site Preparation (grubbing-land clearing)	Signal Boards	3	8.00	6	0.82
Grading	Rollers	2	8.00	80	0.38
Grading	Scrapers	2	8.00	361	0.48
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Signal Boards	3	8.00	6	0.82
Grading	Crawler Tractors	1	8.00	208	0.43
Drainage/Utilities/Subgrade Installation	Air Compressors	1	8.00	78	0.48
Drainage/Utilities/Subgrade Installation	Graders	1	8.00	174	0.41
Drainage/Utilities/Subgrade Installation	Plate Compactors	1	8.00	8	0.43
Drainage/Utilities/Subgrade Installation	Pumps	1	8.00	84	0.74
Drainage/Utilities/Subgrade Installation	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Subgrade Installation	Scrapers	1	8.00	361	0.48
Drainage/Utilities/Subgrade Installation	Signal Boards	3	8.00	6	0.82
Paving	Signal Boards	3	8.00	6	0.82
Paving	Tractors/Loaders/Backhoes	3	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
Site Preparation (grubbing-land	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Subgrade Installation	10	143.00	56.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation (grubbing-land clearing) - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.6563	19.4795	10.6040	0.0204		0.8458	0.8458		0.7815	0.7815		2,048.1048	2,048.1048	0.5885		2,060.4637
Total	**1.6563**	**19.4795**	**10.6040**	**0.0204**	**0.5303**	**0.8458**	**1.3760**	**0.0573**	**0.7815**	**0.8387**		**2,048.1048**	**2,048.1048**	**0.5885**		**2,060.4637**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.7740	16.6797	13.0389	0.0204		0.4587	0.4587		0.4587	0.4587	0.0000	2,048.1048	2,048.1048	0.5885		2,060.4637
Total	**0.7740**	**16.6797**	**13.0389**	**0.0204**	**0.2386**	**0.4587**	**0.6973**	**0.0258**	**0.4587**	**0.4844**	**0.0000**	**2,048.1048**	**2,048.1048**	**0.5885**		**2,060.4637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0541	0.7239	1.4600e-003	0.0893	8.4000e-004	0.0902	0.0242	7.7000e-004	0.0250		119.9145	119.9145	5.7900e-003		120.0362
Total	**0.0601**	**0.0541**	**0.7239**	**1.4600e-003**	**0.0893**	**8.4000e-004**	**0.0902**	**0.0242**	**7.7000e-004**	**0.0250**		**119.9145**	**119.9145**	**5.7900e-003**		**120.0362**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4745	0.0000	2.4745	0.2672	0.0000	0.2672			0.0000			0.0000
Off-Road	9.3798	105.5703	61.4425	0.0918		5.3298	5.3298		4.9068	4.9068		9,467.8266	9,467.8266	2.8266		9,527.1845
Total	**9.3798**	**105.5703**	**61.4425**	**0.0918**	**2.4745**	**5.3298**	**7.8043**	**0.2672**	**4.9068**	**5.1740**		**9,467.8266**	**9,467.8266**	**2.8266**		**9,527.1845**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1803	0.1622	2.1716	4.3800e-003	0.3423	2.5200e-003	0.3448	0.0908	2.3100e-003	0.0931		359.7436	359.7436	0.0174		360.1086
Total	**0.1803**	**0.1622**	**2.1716**	**4.3800e-003**	**0.3423**	**2.5200e-003**	**0.3448**	**0.0908**	**2.3100e-003**	**0.0931**		**359.7436**	**359.7436**	**0.0174**		**360.1086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.1135	0.0000	1.1135	0.1202	0.0000	0.1202			0.0000			0.0000
Off-Road	3.1724	77.2303	58.8798	0.0918		2.2609	2.2609		2.2609	2.2609	0.0000	9,467.8266	9,467.8266	2.8266		9,527.1845
Total	**3.1724**	**77.2303**	**58.8798**	**0.0918**	**1.1135**	**2.2609**	**3.3744**	**0.1202**	**2.2609**	**2.3811**	**0.0000**	**9,467.8266**	**9,467.8266**	**2.8266**		**9,527.1845**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1803	0.1622	2.1716	4.3800e-003	0.2680	2.5200e-003	0.2705	0.0726	2.3100e-003	0.0749		359.7436	359.7436	0.0174		360.1086
Total	**0.1803**	**0.1622**	**2.1716**	**4.3800e-003**	**0.2680**	**2.5200e-003**	**0.2705**	**0.0726**	**2.3100e-003**	**0.0749**		**359.7436**	**359.7436**	**0.0174**		**360.1086**

3.4 Drainage/Utilities/Subgrade Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6253	44.9212	29.5973	0.0443		2.4516	2.4516		2.3362	2.3362		4,358.3601	4,358.3601	0.9511		4,378.3321
Total	**4.6253**	**44.9212**	**29.5973**	**0.0443**		**2.4516**	**2.4516**		**2.3362**	**2.3362**		**4,358.3601**	**4,358.3601**	**0.9511**		**4,378.3321**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6766	4.4977	7.8915	0.0117	0.3289	0.0737	0.4027	0.0937	0.0677	0.1613		1,169.1870	1,169.1870	9.2000e-003		1,169.3802
Worker	0.5731	0.5155	6.9008	0.0139	1.0878	7.9900e-003	1.0958	0.2886	7.3400e-003	0.2959		1,143.1853	1,143.1853	0.0552		1,144.3450
Total	**1.2497**	**5.0132**	**14.7923**	**0.0256**	**1.4167**	**0.0817**	**1.4985**	**0.3822**	**0.0750**	**0.4572**		**2,312.3723**	**2,312.3723**	**0.0644**		**2,313.7252**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8299	33.7752	26.2497	0.0443		1.5892	1.5892		1.5772	1.5772	0.0000	4,358.3601	4,358.3601	0.9511		4,378.3321
Total	**2.8299**	**33.7752**	**26.2497**	**0.0443**		**1.5892**	**1.5892**		**1.5772**	**1.5772**	**0.0000**	**4,358.3601**	**4,358.3601**	**0.9511**		**4,378.3321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6766	4.4977	7.8915	0.0117	0.2688	0.0737	0.3425	0.0789	0.0677	0.1466		1,169.1870	1,169.1870	9.2000e-003		1,169.3802
Worker	0.5731	0.5155	6.9008	0.0139	0.8515	7.9900e-003	0.8595	0.2305	7.3400e-003	0.2379		1,143.1853	1,143.1853	0.0552		1,144.3450
Total	**1.2497**	**5.0132**	**14.7923**	**0.0256**	**1.1203**	**0.0817**	**1.2020**	**0.3094**	**0.0750**	**0.3845**		**2,312.3723**	**2,312.3723**	**0.0644**		**2,313.7252**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5755	25.1492	17.5632	0.0252		1.6535	1.6535		1.5245	1.5245		2,549.6388	2,549.6388	0.7398		2,565.1745
Paving	0.6821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.2576**	**25.1492**	**17.5632**	**0.0252**		**1.6535**	**1.6535**		**1.5245**	**1.5245**		**2,549.6388**	**2,549.6388**	**0.7398**		**2,565.1745**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1002	0.0901	1.2064	2.4300e-003	0.1902	1.4000e-003	0.1916	0.0505	1.2800e-003	0.0517		199.8576	199.8576	9.6500e-003		200.0603
Total	**0.1002**	**0.0901**	**1.2064**	**2.4300e-003**	**0.1902**	**1.4000e-003**	**0.1916**	**0.0505**	**1.2800e-003**	**0.0517**		**199.8576**	**199.8576**	**9.6500e-003**		**200.0603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1882	22.4951	18.3769	0.0252		0.8366	0.8366		0.8366	0.8366	0.0000	2,549.6388	2,549.6388	0.7398		2,565.1745
Paving	0.6821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8703**	**22.4951**	**18.3769**	**0.0252**		**0.8366**	**0.8366**		**0.8366**	**0.8366**	**0.0000**	**2,549.6388**	**2,549.6388**	**0.7398**		**2,565.1745**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1002	0.0901	1.2064	2.4300e-003	0.1489	1.4000e-003	0.1503	0.0403	1.2800e-003	0.0416		199.8576	199.8576	9.6500e-003		200.0603
Total	**0.1002**	**0.0901**	**1.2064**	**2.4300e-003**	**0.1489**	**1.4000e-003**	**0.1503**	**0.0403**	**1.2800e-003**	**0.0416**		**199.8576**	**199.8576**	**9.6500e-003**		**200.0603**

APPENDIX B – GREENHOUSE GAS EMISSIONS

Douglas Road Phase 2

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	340.00	1000sqft	7.81	340,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction Phasing per Roadmod v. 7.1.5.1

Off-road Equipment - Equipment per Roadmod v 7.15.1

Off-road Equipment - Roadmod equipment

Off-road Equipment - Roadmod equipment

Off-road Equipment - Roadmod equipment specifications

Grading -

Construction Off-road Equipment Mitigation - Rule 403. PM reduction percentages per SCAQMD CEQA Handbook

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	7/14/2016	7/13/2016
tblConstructionPhase	PhaseStartDate	6/3/2016	6/2/2016
tblGrading	AcresOfGrading	105.00	70.00
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards

tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3065	3.0116	2.0699	3.2000e-003	0.0750	0.1555	0.2305	0.0129	0.1444	0.1574	0.0000	288.9770	288.9770	0.0708	0.0000	290.4639
Total	**0.3065**	**3.0116**	**2.0699**	**3.2000e-003**	**0.0750**	**0.1555**	**0.2305**	**0.0129**	**0.1444**	**0.1574**	**0.0000**	**288.9770**	**288.9770**	**0.0708**	**0.0000**	**290.4639**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1524	2.3375	2.0300	3.2000e-003	0.0439	0.0785	0.1224	8.7000e-003	0.0782	0.0869	0.0000	288.9767	288.9767	0.0708	0.0000	290.4636
Total	**0.1524**	**2.3375**	**2.0300**	**3.2000e-003**	**0.0439**	**0.0785**	**0.1224**	**8.7000e-003**	**0.0782**	**0.0869**	**0.0000**	**288.9767**	**288.9767**	**0.0708**	**0.0000**	**290.4636**

	ROG	NOx	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	**50.28**	**22.38**	**1.93**	**0.00**	**41.45**	**49.53**	**46.90**	**32.66**	**45.86**	**44.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation (grubbing-land clearing)	Site Preparation	1/29/2016	3/10/2016	5	30	
2	Grading	Grading	3/11/2016	4/21/2016	5	30	
3	Drainage/Utilities/Subgrade Installation	Building Construction	4/22/2016	6/2/2016	5	30	
4	Paving	Paving	6/2/2016	7/13/2016	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 70

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation (grubbing-land clearing)	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation (grubbing-land clearing)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Drainage/Utilities/Subgrade Installation	Cranes	0	7.00	226	0.29
Drainage/Utilities/Subgrade Installation	Forklifts	0	8.00	89	0.20
Drainage/Utilities/Subgrade Installation	Generator Sets	1	8.00	84	0.74
Drainage/Utilities/Subgrade Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Drainage/Utilities/Subgrade Installation	Welders	0	8.00	46	0.45
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Site Preparation (grubbing-land clearing)	Crawler Tractors	1	8.00	208	0.43
Site Preparation (grubbing-land clearing)	Excavators	2	8.00	162	0.38
Site Preparation (grubbing-land clearing)	Signal Boards	3	8.00	6	0.82
Grading	Rollers	2	8.00	80	0.38
Grading	Scrapers	2	8.00	361	0.48
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Signal Boards	3	8.00	6	0.82
Grading	Crawler Tractors	1	8.00	208	0.43
Drainage/Utilities/Subgrade Installation	Air Compressors	1	8.00	78	0.48
Drainage/Utilities/Subgrade Installation	Graders	1	8.00	174	0.41
Drainage/Utilities/Subgrade Installation	Plate Compactors	1	8.00	8	0.43
Drainage/Utilities/Subgrade Installation	Pumps	1	8.00	84	0.74
Drainage/Utilities/Subgrade Installation	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Subgrade Installation	Scrapers	1	8.00	361	0.48
Drainage/Utilities/Subgrade Installation	Signal Boards	3	8.00	6	0.82
Paving	Signal Boards	3	8.00	6	0.82
Paving	Tractors/Loaders/Backhoes	3	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
Site Preparation (grubbing-land	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Subgrade Installation	10	143.00	56.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation (grubbing-land clearing) - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2922	0.1591	3.1000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	27.8701	27.8701	8.0100e-003	0.0000	28.0383
Total	**0.0248**	**0.2922**	**0.1591**	**3.1000e-004**	**7.9500e-003**	**0.0127**	**0.0206**	**8.6000e-004**	**0.0117**	**0.0126**	**0.0000**	**27.8701**	**27.8701**	**8.0100e-003**	**0.0000**	**28.0383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	9.0000e-004	9.4400e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6700e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4748	1.4748	8.0000e-005	0.0000	1.4764
Total	**7.5000e-004**	**9.0000e-004**	**9.4400e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6700e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4748**	**1.4748**	**8.0000e-005**	**0.0000**	**1.4764**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					3.5800e-003	0.0000	3.5800e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.2502	0.1956	3.1000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	27.8701	27.8701	8.0100e-003	0.0000	28.0383
Total	**0.0116**	**0.2502**	**0.1956**	**3.1000e-004**	**3.5800e-003**	**6.8800e-003**	**0.0105**	**3.9000e-004**	**6.8800e-003**	**7.2700e-003**	**0.0000**	**27.8701**	**27.8701**	**8.0100e-003**	**0.0000**	**28.0383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	9.0000e-004	9.4400e-003	2.0000e-005	1.3000e-003	1.0000e-005	1.3100e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.4748	1.4748	8.0000e-005	0.0000	1.4764
Total	**7.5000e-004**	**9.0000e-004**	**9.4400e-003**	**2.0000e-005**	**1.3000e-003**	**1.0000e-005**	**1.3100e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.4748**	**1.4748**	**8.0000e-005**	**0.0000**	**1.4764**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0371	0.0000	0.0371	4.0100e-003	0.0000	4.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1407	1.5836	0.9216	1.3800e-003		0.0800	0.0800		0.0736	0.0736	0.0000	128.8360	128.8360	0.0385	0.0000	129.6438
Total	**0.1407**	**1.5836**	**0.9216**	**1.3800e-003**	**0.0371**	**0.0800**	**0.1171**	**4.0100e-003**	**0.0736**	**0.0776**	**0.0000**	**128.8360**	**128.8360**	**0.0385**	**0.0000**	**129.6438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	2.7000e-003	0.0283	6.0000e-005	4.9600e-003	4.0000e-005	5.0000e-003	1.3200e-003	3.0000e-005	1.3500e-003	0.0000	4.4243	4.4243	2.4000e-004	0.0000	4.4293
Total	**2.2600e-003**	**2.7000e-003**	**0.0283**	**6.0000e-005**	**4.9600e-003**	**4.0000e-005**	**5.0000e-003**	**1.3200e-003**	**3.0000e-005**	**1.3500e-003**	**0.0000**	**4.4243**	**4.4243**	**2.4000e-004**	**0.0000**	**4.4293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0167	0.0000	0.0167	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	1.1585	0.8832	1.3800e-003		0.0339	0.0339		0.0339	0.0339	0.0000	128.8359	128.8359	0.0385	0.0000	129.6436
Total	**0.0476**	**1.1585**	**0.8832**	**1.3800e-003**	**0.0167**	**0.0339**	**0.0506**	**1.8000e-003**	**0.0339**	**0.0357**	**0.0000**	**128.8359**	**128.8359**	**0.0385**	**0.0000**	**129.6436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	2.7000e-003	0.0283	6.0000e-005	3.8900e-003	4.0000e-005	3.9200e-003	1.0600e-003	3.0000e-005	1.0900e-003	0.0000	4.4243	4.4243	2.4000e-004	0.0000	4.4293
Total	**2.2600e-003**	**2.7000e-003**	**0.0283**	**6.0000e-005**	**3.8900e-003**	**4.0000e-005**	**3.9200e-003**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**	**0.0000**	**4.4243**	**4.4243**	**2.4000e-004**	**0.0000**	**4.4293**

3.4 Drainage/Utilities/Subgrade Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0694	0.6738	0.4440	6.6000e-004		0.0368	0.0368		0.0350	0.0350	0.0000	59.3076	59.3076	0.0129	0.0000	59.5793
Total	**0.0694**	**0.6738**	**0.4440**	**6.6000e-004**		**0.0368**	**0.0368**		**0.0350**	**0.0350**	**0.0000**	**59.3076**	**59.3076**	**0.0129**	**0.0000**	**59.5793**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.0711	0.1384	1.8000e-004	4.7900e-003	1.1100e-003	5.9000e-003	1.3700e-003	1.0200e-003	2.3900e-003	0.0000	15.8518	15.8518	1.3000e-004	0.0000	15.8545
Worker	7.1900e-003	8.5800e-003	0.0900	1.9000e-004	0.0158	1.2000e-004	0.0159	4.1900e-003	1.1000e-004	4.3000e-003	0.0000	14.0595	14.0595	7.5000e-004	0.0000	14.0753
Total	**0.0184**	**0.0797**	**0.2284**	**3.7000e-004**	**0.0205**	**1.2300e-003**	**0.0218**	**5.5600e-003**	**1.1300e-003**	**6.6900e-003**	**0.0000**	**29.9113**	**29.9113**	**8.8000e-004**	**0.0000**	**29.9298**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0425	0.5066	0.3938	6.6000e-004		0.0238	0.0238		0.0237	0.0237	0.0000	59.3075	59.3075	0.0129	0.0000	59.5793
Total	**0.0425**	**0.5066**	**0.3938**	**6.6000e-004**		**0.0238**	**0.0238**		**0.0237**	**0.0237**	**0.0000**	**59.3075**	**59.3075**	**0.0129**	**0.0000**	**59.5793**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.0711	0.1384	1.8000e-004	3.9200e-003	1.1100e-003	5.0400e-003	1.1600e-003	1.0200e-003	2.1800e-003	0.0000	15.8518	15.8518	1.3000e-004	0.0000	15.8545
Worker	7.1900e-003	8.5800e-003	0.0900	1.9000e-004	0.0124	1.2000e-004	0.0125	3.3500e-003	1.1000e-004	3.4600e-003	0.0000	14.0595	14.0595	7.5000e-004	0.0000	14.0753
Total	**0.0184**	**0.0797**	**0.2284**	**3.7000e-004**	**0.0163**	**1.2300e-003**	**0.0175**	**4.5100e-003**	**1.1300e-003**	**5.6400e-003**	**0.0000**	**29.9113**	**29.9113**	**8.8000e-004**	**0.0000**	**29.9298**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0386	0.3772	0.2635	3.8000e-004		0.0248	0.0248		0.0229	0.0229	0.0000	34.6949	34.6949	0.0101	0.0000	34.9063
Paving	0.0102					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0489**	**0.3772**	**0.2635**	**3.8000e-004**		**0.0248**	**0.0248**		**0.0229**	**0.0229**	**0.0000**	**34.6949**	**34.6949**	**0.0101**	**0.0000**	**34.9063**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	1.5000e-003	0.0157	3.0000e-005	2.7500e-003	2.0000e-005	2.7800e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.4580	2.4580	1.3000e-004	0.0000	2.4607
Total	**1.2600e-003**	**1.5000e-003**	**0.0157**	**3.0000e-005**	**2.7500e-003**	**2.0000e-005**	**2.7800e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4580**	**2.4580**	**1.3000e-004**	**0.0000**	**2.4607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0178	0.3374	0.2757	3.8000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	34.6949	34.6949	0.0101	0.0000	34.9063
Paving	0.0102					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0281**	**0.3374**	**0.2757**	**3.8000e-004**		**0.0126**	**0.0126**		**0.0126**	**0.0126**	**0.0000**	**34.6949**	**34.6949**	**0.0101**	**0.0000**	**34.9063**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	1.5000e-003	0.0157	3.0000e-005	2.1600e-003	2.0000e-005	2.1800e-003	5.9000e-004	2.0000e-005	6.1000e-004	0.0000	2.4580	2.4580	1.3000e-004	0.0000	2.4607
Total	**1.2600e-003**	**1.5000e-003**	**0.0157**	**3.0000e-005**	**2.1600e-003**	**2.0000e-005**	**2.1800e-003**	**5.9000e-004**	**2.0000e-005**	**6.1000e-004**	**0.0000**	**2.4580**	**2.4580**	**1.3000e-004**	**0.0000**	**2.4607**