INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

EAST LAUREL DRIVE PEDESTRIAN IMPROVEMENTS PROJECT

Prepared for	City of Salinas 200 Lincoln Avenue Salinas, California 93901
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Date	August 2019

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
BMP	Best Management Practices
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalency Level
CNPS	California Native Plant Society
CWA	Clean Air Act
dB	decibels
dBA	A-weighted decibels
DTSC	Department of Toxic Substances Control
EO	Executive Order
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
IS/MND	Initial Study leading to a Mitigated Negative Declaration
lbs/day	pound(s) per day
LOS	Level of Service
MBARD	Monterey Bay Air Resources District
MM	Mitigation Measure
mph	miles per hour
MT	metric ton(s)
NCCAB	North Central Coast Air Basin
NOI	Notice of Intent
NOx	nitrogen oxide(s)
NPDES	National Pollutant Discharge Elimination System
O3	ozone
OHWM	Ordinary High Water Mark
Pb	lead
PM10	particulate matter
PM2.5	particulate matter 2.5 microns in diameter or less
REC	Recognized Environmental Condition

RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SC	Standard Conditions and Regulations
SO2	sulfur dioxide
SWPPP	Stormwater Water Pollution Prevention Plan
TAC	toxic air contaminants
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WQMP	Water Quality Management Plan

1 INTRODUCTION

1.1 Project Summary

The primary purpose of the project is to enhance pedestrian safety and increase connectivity, mobility, and access for transit users and pedestrians. This project would improve pedestrian, vehicular, and trail facilities along East Laurel Drive and Constitution Boulevard including new sidewalks, a multi-use trail, trail lighting, and landscaping to promote urban sustainable.

1.2 Purpose and Scope of the Initial Study

In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR}, Title 14, §15000 et seq.), this Initial Study has been prepared to evaluate the potential environmental effects associated with the proposed East Laurel Drive Pedestrian Improvements Project (hereinafter referred to as the "proposed project" or "project"). This Initial Study includes a description of the proposed project; an evaluation of the project's potential environmental impacts; the findings of the environmental analyses; and recommended mitigation program to lessen or avoid the project's significant adverse impacts on the environment.

Pursuant to State CEQA Guidelines Section 15367, the City of Salinas (City), as the Lead Agency, has the authority for environmental review and adoption of the environmental documentation, in accordance with CEQA. This Initial Study has evaluated the environmental issues contained in the environmental checklist provided in Section 3.

Section 4 provides decision-makers and the public with information concerning the project's potential environmental effects and recommends Standard Conditions and Regulations (SCs) and Mitigation Measures (MMs) to reduce or avoid potential environmental impacts. This Initial Study is intended to be used as a decision-making tool for the Lead Agency and responsible agencies in considering and acting on the proposed project. Any responsible agency may elect to use this environmental analysis for discretionary actions associated with the project implementation.

1.3 Summary of Findings

Based on the environmental checklist form completed for the proposed project and supporting environmental analysis, the project would have no impact or a less than significant impact on the following environmental issues: Aesthetics, Agriculture and Forestry Resources, Air Quality, Energy, Greenhouse Gases, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfires. The proposed project's impacts on the following environmental issues would be less than significant with mitigation incorporated: Biological Resources, Cultural Resources, Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Noise. All impacts would be less than significant after mitigation.

As set forth in the State CEQA Guidelines Section 15070, an Initial Study leading to a Mitigated Negative Declaration (IS/MND) can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to the project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a less than significant level; and there is no substantial

evidence in light of the whole record before the public agency that the project, may have a significant effect on the environment.

1.4 Initial Study Public Review Process

The Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration has been provided to the Clerk of the County of Monterey and mailed to responsible agencies, nearby property owners, and others who expressed interest in being notified. A 20-day public review period has been established for the IS/MND in accordance with State CEQA Guidelines Section 15073. During the public review period, the IS/MND, including the technical appendices, can be accessed on the City's website at https://www.cityofsalinas.org/our-city-services/public-works/documents-public-review.

The document is also available at the following locations:

City of Salinas
City Hall
200 Lincoln Avenue
Salinas, California 93901

John Steinbeck Library
350 Lincoln Avenue
Salinas, California 93901

Cesar Chavez Library
615 Williams Road
Salinas, California 93905

In reviewing the IS/MND, public agencies and interested members of the public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the project's potentially significant effects can be avoided or mitigated. Comments on this IS/MND and the analysis contained herein may be sent to:

Eda Herrera, P.E., Senior Civil Engineer
City of Salinas
Public Works Department
200 Lincoln Avenue
Salinas, California 93901
(831) 758-7438

Written comments may also be sent via email to eda@ci.salinas.ca.us. Comments sent via email should include the project title in the subject line and a valid mailing address in the email.

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City of Salinas will determine whether any substantial new environmental issues have been raised. If so, further documentation may be required. If not or if the issues raised do not provide substantial evidence that the project will have a significant effect on the environment, the IS/MND and the project will be considered for adoption and approval, respectively.

1.5 Report Organization

This document has been organized into the following sections:

Section 1 – Introduction. This section provides an introduction and overview describing the Initial Study's conclusions.

Section 2 – Project Description. This section identifies the project's location/boundaries, key project characteristics, and the Initial Study's intended uses, including a list of anticipated permits and other approvals.

Section 3 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4 – Environmental Evaluation. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 5 – Preparers. This section identifies individuals involved in the preparation of the Initial Study.

Section 6 – References. The section identifies resources used to prepare the Initial Study.

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2 PROJECT DESCRIPTION

2.1 Project Location and Setting

Project Location

The proposed pedestrian, vehicular, and trails improvements project would be implemented in the City of Salinas in Monterey County, California. The site is shown in a regional and local context in Exhibit 1, *Regional Location Map,* and Exhibit 2, *Local Vicinity Map*, respectively. Highway 101 is approximately one mile to the south of East Laurel Drive. The site is generally bordered by a mix of land uses including but not limited to residential, agricultural, recreation and commercial uses, and public facilities.

Project improvements are proposed on East Laurel Drive from Constitution Boulevard to the northwest to North Sanborn Road to the southeast; and on Constitution Boulevard from East Laurel Drive to approximately 375 feet south of Manchester Circle. The rehabilitation of an existing trail is also proposed from the entrance to the Monterey County East Laurel Facility (facility yards), along East Laurel Drive, to the northern trail at the Natividad Creek Detention Basin. Lighting improvements would be provided on two existing trails, one trail near the parking lot of the Vietnam Veterans Memorial Park extending approximately 800 feet north and another trail around the inland side Natividad Creek Detention Basin to approximately 95 feet west of Garner Avenue at Gee Street.

East Laurel Drive is classified as a "Major Arterial" in the City of Salinas General Plan Circulation Element. Within the limits of the project study area, East Laurel Drive trends generally north to south with two travel lanes in each direction. Within the limits of the study area, Constitution Boulevard is a northeast to southwest trending divided minor arterial with two travel lanes in each direction.

Existing Land Uses

Table 1, *Surrounding Land Uses and Zoning Designations*, identifies land uses proximate to the project site and the corresponding zoning designations.

Table 1: Surrounding Land Uses and Zoning Designations

Direction	East Laurel Drive	Constitution Boulevard	Zoning
North/East	Natividad Medical Center, Monterey County Parks Department facilities, Natividad Detention Basin, residential uses, 5 ft bike lane with 3 ft buffer	Natividad Medical Center, open fields, Monterey County Jail, Residential uses	Public/Semipublic, Parks, Open Space, Residential Medium Density
South/West	Agricultural land, open fields, Natividad Creek, 6 ft bike lane	Open fields, Constitution Soccer Complex	Residential Low Density, Agriculture, Commercial Retail, Residential High Density

East Laurel Drive from North Sanborn Road to Constitution Boulevard

East Laurel Drive traverses a range of land uses including residential, agricultural, recreation, commercial, and medical. The north side of East Laurel Drive, between North Sanborn Road and St. Edwards Drive, includes a small neighborhood retail center at the intersection of North Sanborn Road at East Laurel Drive which includes a gas station and restaurants; single-family and multi-family residences are northeast of

the retail center. Between St. Edwards Drive and Constitution Boulevard, land uses include the Natividad Creek Detention Basin; an existing unpaved trail; Monterey County East Laurel Facility; Vietnam Veterans Memorial Park, and the Constitution Soccer Complex. The Natividad Medical Center is on the north side of East Laurel Drive between Constitution Boulevard and Natividad Road.

Land uses on the south side of East Laurel Drive between North Sanborn Road and St. Edwards Drive include a retail center at the intersection of North Sanborn Road at East Laurel Drive which includes an automotive shop, market, a convenience store, and other retail uses. North of the retail center is a church, multi-family residences, vacant land, and single-family residences. Agricultural land is to the south of East Laurel Drive between the single-family residences and Natividad Road. Natividad Creek crosses under East Laurel Drive and enters the Natividad Creek Detention Basin. Gabilan Creek crosses under East Laurel Drive between Vietnam Veterans Memorial Park and the Constitution Soccer Complex.

Constitution Boulevard from East Laurel Drive to the Project Terminus

Land uses west of Constitution Boulevard include the Natividad Medical Center; the Monterey County Jail, Juvenile Hall, Probation Department and Sheriff's Office; vacant land, and single-family residences. The southeast side of Constitution Boulevard contains the Constitution Soccer Complex, Monterey County Parks Department facilities, and undeveloped land. A church and retail center are located at the project terminus on Constitution Boulevard.

Existing Bike Facilities and Trails

The City of Salinas Bikeways Map (March 7, 2018) identifies bike lanes on East Laurel Drive between St. Edwards Drive and Natividad Road, and on Constitution Boulevard. Specifically, there are existing bike lanes in both directions on East Laurel Drive from St. Edwards Drive to Constitution Boulevard. Within the project limits on northbound East Laurel Drive, there is a 5-foot-wide bike lane with 3-foot-wide buffer striping. Within the project limits on southbound East Laurel Drive, there is a 6-foot-wide bike lane. The on-street bike lane improvements were completed in June 2019. There are bike lanes in both travel directions on Constitution Boulevard.

One existing pedestrian trail on the east side of East Laurel Drive starts at the parking lot of the Vietnam Veterans Memorial Park and extends to Constitution Boulevard near Independence Boulevard. The other pedestrian trail also extends to the southeast, crossing the road into the Monterey County East Laurel Facility (Ranch View Lane), continuing parallel to East Laurel Drive until reaching the Natividad Creek Detention Basin, where it curves around the eastern edge of the basin, terminating at a residential neighborhood at Garner Avenue.

Existing Roadways and Infrastructure

East Laurel Drive from North Sanborn Road to St. Edwards Drive

The intersection of East Laurel Drive at North Sanborn Road is a four-way signalized intersection with two travel lanes, one left-turn lane, and one right-turn lane on southbound East Laurel Drive. There are existing light standards at the intersection as well as a raised median on East Laurel Drive. Between North Sanborn Road and St. Edwards Drive, East Laurel Drive has two travel lanes in each direction with a raised median and improved curb and gutters. Light standards and a sidewalk are on the west side of East Laurel Drive. A sidewalk on the east side ends just north of East Laurel Drive at North Sanborn Road.

EXHIBIT 1: Regional Location Map

East Laurel Drive Pedestrian Improvements

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EXHIBIT 2: Local Vicinity Map

East Laurel Drive Pedestrian Improvements

Kimley»Horn

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Wooden utility poles with overhead utility lines are along northbound East Laurel Drive between North Sanborn Road and Constitution Boulevard. Utilities are underground starting at the Natividad Medical Center.

East Laurel Drive at St. Edwards Drive

East Laurel Drive at St. Edwards Drive is a three-way controlled intersection with striped pedestrian crossings. Northbound East Laurel Drive has two travel lanes and a left-turn lane into St. Edwards Drive. There is an existing raised median and curb on East Laurel Drive. Vegetation and power poles border the northbound lanes on East Laurel Drive.

East Laurel Drive from St. Edwards Drive to Ranch View Lane

Between St. Edwards Drive and Ranch View Lane, East Laurel Drive continues with two travel lanes in each direction with a raised landscaped median. A northbound left-turn pocket is provided at Ranch View Lane, and a southbound left-turn pocket is provided for gated County access to its pump station. On northbound East Laurel Drive, there are no curbs or gutters until the entrance road to the Monterey County East Laurel Facility (Ranch View Lane). On southbound East Laurel Drive, curbs are provided intermittently. There is an underground storm drain approximately 1,180 feet south of the intersection of Ranch View Lane at East Laurel Drive.

East Laurel Drive from Ranch View Lane to Constitution Boulevard

East Laurel Drive continues as two through travel lanes with a raised landscaped median between Constitution Boulevard and Ranch View Lane. On northbound East Laurel Drive, there are existing power poles adjacent to the road. There are no pedestrian facilities or lighting in either direction. There are intermittent curbs in both directions. The only existing sidewalk is on the northeast corner of the entrance road to the Monterey County East Laurel Facility (Ranch View Lane) at East Laurel Drive. The sidewalk continues approximately 135 feet to a bus stop.

East Laurel Drive at Constitution Boulevard

East Laurel Drive at Constitution Boulevard is a three-way signalized intersection. Two travel lanes are provided, with one right yield lane that merges to Constitution Boulevard. There are existing light standards, pedestrian crosswalks, and refuge islands at Constitution Boulevard. There are existing curbs on both sides of Constitution Boulevard.

Constitution Boulevard from East Laurel Drive to the Project Terminus

Constitution Boulevard is a four-lane road with two lanes in each direction with raised landscaped medians. There is existing vegetation and a dirt path bordering the northbound lanes while concrete sidewalk borders southbound Constitution Boulevard. Existing curbs and light standards are on both sides of Constitution Boulevard.

2.3 Proposed Project

Exhibit 3, *Site Plan*, depicts the project limits for the proposed project. The project is proposed to improve pedestrian, vehicular, and trail facilities along East Laurel Drive and Constitution Boulevard by providing

new sidewalk facilities, a trail system and boardwalk for pedestrians and bicyclists, trail lighting, and new street lighting on the roadway.

Curb and gutter improvements would be provided on northbound East Laurel Drive from North Sanborn Road to Constitution Boulevard, and northbound Constitution Boulevard to approximately 375 feet south of Manchester Circle. A boardwalk is proposed alongside northbound East Laurel Drive, starting at St. Edwards Drive and terminating outside the northern edge of the Natividad Creek Detention Basin.

The rehabilitation of an existing trail is also proposed from the entrance to the Monterey County East Laurel Facility (facility yards), along East Laurel Drive, to the northern trail at the Natividad Creek Detention Basin. Pedestrian lighting improvements would be provided on two existing trails, one trail near the parking lot of the Vietnam Veterans Memorial Park extending approximately 800 feet north and another trail around the inland side Natividad Creek Detention Basin to approximately 95 feet west of Garner Avenue at Gee Street. Low-profile (approximately 3.5 feet) pedestrian lights would be provided along the trails. New 33.75-foot-tall light standards would be installed throughout the project site, resulting in a small number of tree removals.

Cross-sections for East Laurel Drive and Constitution Boulevard are shown in Exhibit 4, *East Laurel Drive and Constitution Boulevard Cross Sections.* Cross Section 1 has one 11-foot-wide and one 12-foot-wide travel way, curb and gutters, and a 5.5-foot-wide cement concrete sidewalk.

Cross Section 2 has the same design components except that a 6.5-foot-wide boardwalk with Americans with Disabilities Act (ADA) compliant handrails would be provided instead of a concrete sidewalk. The boardwalk would be supported by helical anchors, 22 feet below existing grade. The anchors would be spaced ten feet apart, each pair of anchors spaced four feet apart. The sidewalk improvements would consist of a typical concrete sidewalk and an elevated boardwalk where the sidewalk will be constructed over the top of the existing East Laurel Drive roadway embankment.

Cross Section 3 is for improvements on Constitution Boulevard. An approximate 4- to 6-foot-wide sidewalk, measured from back of sidewalk to the curb face, with 3-foot-wide landscape buffer is proposed. Irrigated landscaping is also proposed in the landscaping strip.

East Laurel Drive from North Sanborn Road to St. Edwards Drive

The project would construct new curbs and gutters and an approximately 5.5-foot-wide sidewalk starting at the existing sidewalk and curb approximately 330 feet north of the intersection of North Sanborn Road at East Laurel Drive. The improvements extend to St. Edwards Drive, terminating approximately 40 feet south of East Laurel Drive at St. Edwards Drive. Single arm light standards are proposed on either side of East Laurel Drive with three double arm light standards proposed in the existing raised median.

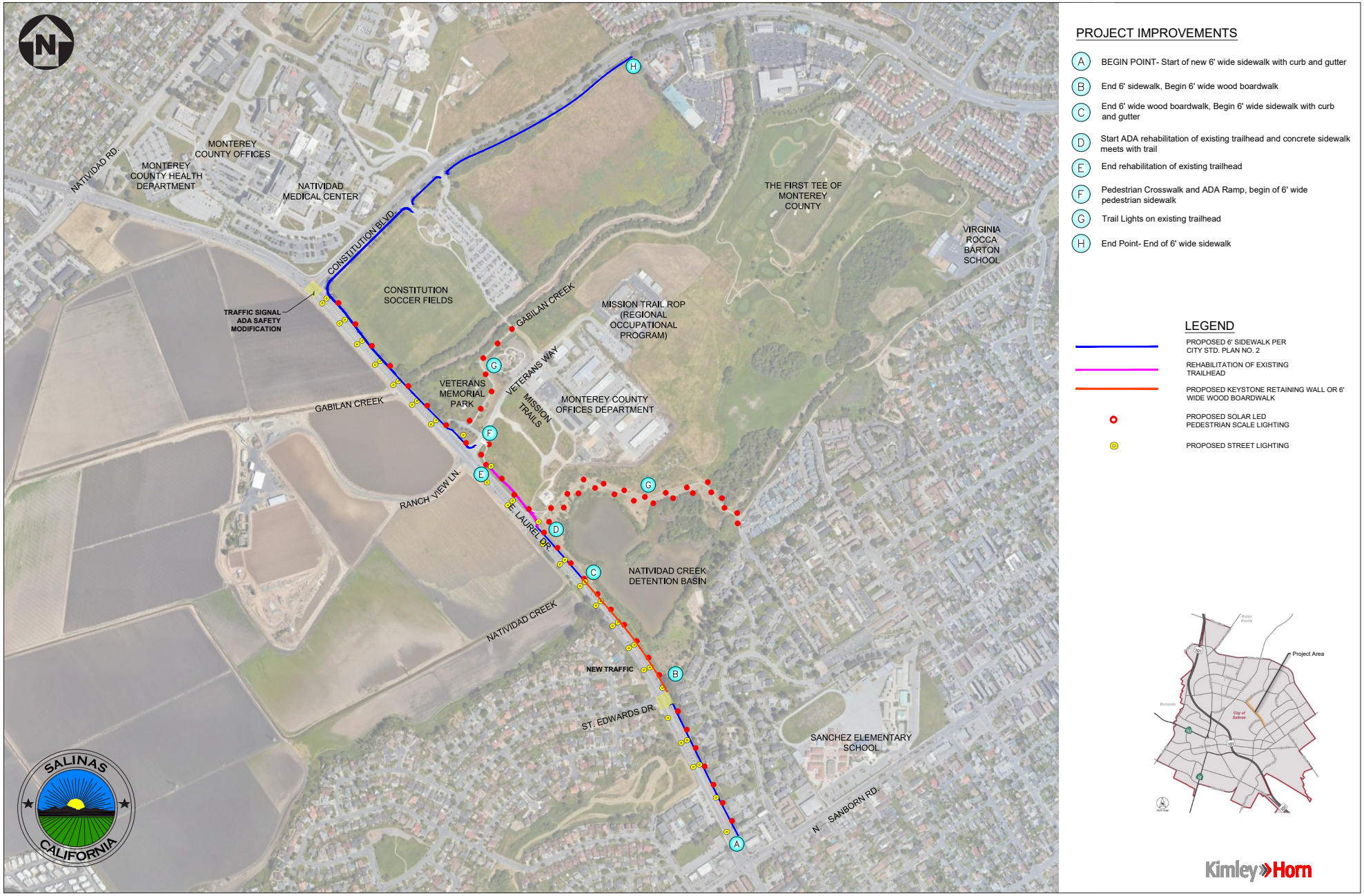

EXHIBIT 3: Site Plan

East Laurel Drive Pedestrian Improvements

Kimley»Horn

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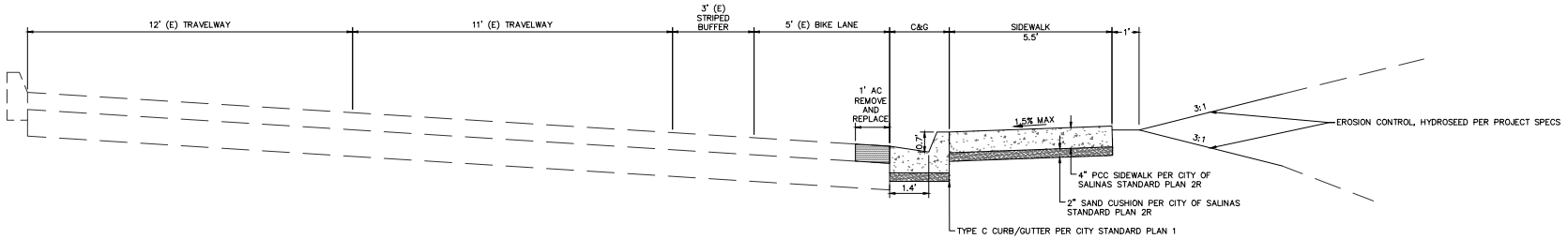
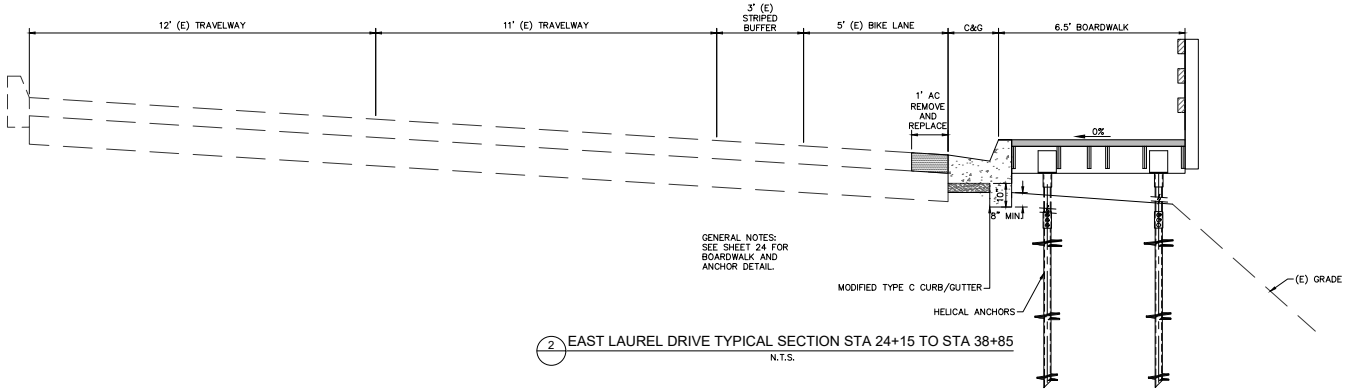
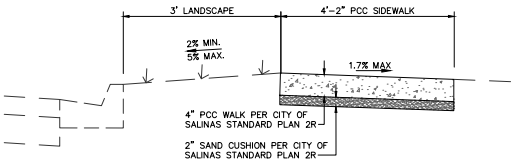


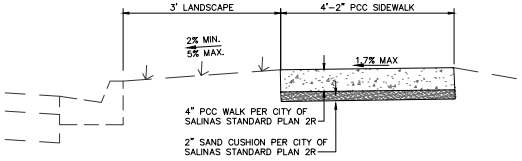
1 EAST LAUREL DRIVE TYPICAL SECTION STA 0+00 TO STA 15+80 AND STA 40+63 TO STA 50+82
N.T.S.



2 EAST LAUREL DRIVE TYPICAL SECTION STA 24+15 TO STA 38+85
N.T.S.



CONSTITUTION BLVD. TYPICAL SECTION STA 2+00 TO 13+25



CONSTITUTION BLVD. TYPICAL SECTION STA 14+47 TO 30+34

EXHIBIT 4: East Laurel Drive and Constitution Boulevard Cross Sections

East Laurel Drive Pedestrian Improvements

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East Laurel Drive from St. Edwards Drive to Ranch View Lane

Design Cross Section 2 is proposed for the northbound segment of East Laurel Drive between St. Edwards Drive and Ranch View Lane. The 6-foot-wide boardwalk would start adjacent to the bike lane at St. Edwards Drive and extend north alongside East Laurel Drive, stopping near the gated County access road where it turns into a 6-foot-wide sidewalk. The sidewalk would terminate and tie into the existing trail at the north end of the Natividad Creek Detention Basin. New curbs and gutters are proposed alongside the proposed boardwalk. The boardwalk would cross over several utilities including two storm drain outlets and power poles. Existing shrubs and vegetation would be cleared for the proposed improvements. Approximately 2-foot-wide curb and gutter improvements are proposed from St. Edwards Drive to Ranch View Lane.

Trail rehabilitation is also proposed east of the entrance to the Monterey County East Laurel Facility, along East Laurel Drive to the northern trail at the Natividad Creek Detention Basin. Pedestrian lighting improvements are proposed on the trail around the inland side Natividad Creek Detention Basin to approximately 95 feet west of Garner Avenue at Gee Street. The low-profile pedestrian lights, measuring approximately 3.5 feet, would border the trail in an offset order, spaced approximately 100 feet from each other.

Single arm light standards are proposed for the intersection of East Laurel Drive at Ranch View lane. Two additional single arm light standards would be located on either side of East Laurel Drive, approximately 140 and 250 feet east of Ranch View Lane, respectively. A double arm light standard is proposed within the existing raised median on East Laurel Drive. Additional single arm light standards would be on southbound East Laurel Drive, stopping at the end of the left-turn pocket near the gated trail access. Ten double arm light standards are proposed in the raised median between St. Edwards Drive and the Natividad Creek Detention Basin. Installation of two light standards would remove bushes and trees.

East Laurel Drive from Ranch View Lane to Constitution Boulevard

Design Cross Section 1 is for the northbound segment of East Laurel Drive between Ranch View Lane and Constitution Boulevard. The sidewalk and curb and gutter improvements would begin at the existing facilities approximately 160 feet north of East Laurel Drive at Ranch View Lane and extend north until it connects with existing facilities at the northbound right-turn lane to Constitution Boulevard from East Laurel Drive. A handrail would be provided along the sidewalk from the bus stop at Veterans Way to where Gabilan Creek crosses East Laurel Drive. The proposed improvements cross over two storm drain outlets.

Pedestrian lighting is proposed west of the entrance to the Monterey County East Laurel Facility near the Vietnam Veterans Memorial Park parking lot. The trail lighting extends approximately 800 feet north from the parking lot. Low-profile pedestrian lights, measuring approximately 3.5 feet tall, would be spaced out approximately 100 feet from each other, in alternating sides of the trail. Power to the new trail lights would be obtained from the existing PG&E power pole near Ranch View Lane. Additionally, double arm light standards would be installed in the raised median between Ranch View Lane and Constitution Boulevard. Four trees or bushes would be removed from the median as a result. A set of single arm light standards would be on both sides of East Laurel Drive approximately 125 feet west of Ranch View Lane.

East Laurel Drive at Constitution Boulevard

Eight single arm light standards are proposed at the intersection of East Laurel Drive at Constitution Boulevard. Five light standards would be in the sidewalk on either side of Constitution Boulevard and one pole would be in the refuge island. Two light standards would be along northbound East Laurel Drive approximately 100 feet west of the street lights at the intersection. Traffic signal modifications are proposed.

Constitution Boulevard from East Laurel Drive to the Project Terminus

Design Cross Section 3 is applicable to Constitution Boulevard. As proposed, an approximately 3-foot-wide landscaping buffer and an approximately 4-foot-wide sidewalk would be constructed on northbound Constitution Boulevard. The improvements continue to the project boundary approximately 375 feet south of Constitution at Manchester Circle. The proposed sidewalk would follow the existing dirt path and meander around several utilities, including street lamps and storm drains. Two trees on Constitution Boulevard would be removed. No lighting improvements are proposed.

2.4 Construction Phasing

The proposed project would disturb approximately 2.12 acres and require approximately 375 cubic yards of cut and approximately 1,403 cubic yards of fill. Construction activities would require standard construction equipment for concrete demolition, earth hauling equipment, roadway excavation, paving, and lighting installation. Construction staging and parking would be accommodated within the project limits.

During the approximately six-month construction period, at minimum of one through travel lane in each direction on East Laurel Drive and Constitution Boulevard would be operational. No roadways would be completely closed during construction. Construction activities would be conducted in the following stages:

- Demolition of existing concrete improvements such as curb ramps, driveways, curb and gutter, and sidewalks at widening areas
- Construction of boardwalk; drilling associated with boardwalk anchors
- Installation of pedestrian, median, sidewalk lighting

2.5 Permits and Approvals

The actions and/or approvals that the City of Salinas needs to consider for the proposed project include, but are not limited to, the following:

- **Adoption of the Initial Study/Mitigated Negative Declaration.** The proposed project requires CEQA compliance through the adoption of an IS/MND prior to approval of the project. This Initial Study and the proposed MND are intended to serve as the primary environmental document for all actions associated with the approval of the proposed project. In addition, this is the primary reference document for the formulation and implementation of a mitigation monitoring program for the proposed project.
- **Project Approval.**

Subsequent non-discretionary approvals (which would require separate processing through the City) would include, but may not be limited to, grading and street encroachment permits, a final Water Quality Management Plan (WQMP), and a Stormwater Pollution Prevention Plan (SWPPP).[1]

[1] A SWPPP is required where the disturbance area is one acre or more. Should the disturbance area be less than one acre, an Erosion and Sediment Control Plan would be required.

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3 INITIAL STUDY CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION:

On the basis of this initial evaluation (check one):

☐ 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.

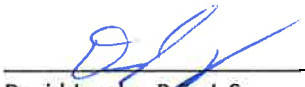
☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to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

CERTIFICATION:

Prepared by:

Kimley-Horn and Associates, Inc.

Reviewed by:



David Jacobs, P.E., L.S.
City of Salinas Public Works Director

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4 ENVIRONMENTAL ANALYSIS

The following section describes the environmental setting and identifies the environmental impacts anticipated from implementation of the proposed project. The criteria provided in the CEQA environmental checklist were used to identify potentially significant environmental impacts associated with the project.

The discussion for each environmental subject includes the following subsections:

- **Environmental Checklist** – The environmental checklist, as recommended by CEQA, identifies environmental impacts that could occur if the proposed project is implemented. The right-hand column of the checklist lists the source(s) for the answer to each question. The sources are identified at the end of this Initial Study.
- **Setting** – This subsection discusses the project's existing conditions related to the environmental resource area.
- **Impact Discussion** – This subsection discusses the project's impact as it relates to the environmental checklist questions.

4.1 Aesthetics

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference Source(s)
Would the project:					
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	7
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒	7, 10
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒	10
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	10

Setting

The project site is in the City of Salinas, north of Highway 101. Land uses bordering the project site include medical office uses, agricultural fields, institutional facilities, retail uses, and residential neighborhoods.

Improvements are proposed on East Laurel Drive from Constitution Boulevard to the north toward North Sanborn Road to the south, as well as a segment on Constitution Boulevard. There are existing trees, power poles, and dirt trails along East Laurel Drive. Pedestrian and bicycle facilities currently exist throughout the project site.

Impact Discussion

Threshold (a) Would the project have a substantial adverse effect on a scenic vista?

Threshold (b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. The project site is not along a State scenic highway, rural scenic corridor, or City Gateway. State Route 68, between the cities of Salinas and Monterey, is an Officially Designated State Scenic

Highway. The nearest portion of State Route 68 is John Street, located approximately 1.5 miles south of and not visible from the project site. There are no scenic vistas that would be impacted by the proposed project. No impacts would occur, and no mitigation is required.

Threshold (c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. Views to the southwest are unrestricted because of the presence of agricultural fields. Views to the northeast of East Laurel Drive are limited due to existing trees, power poles, and nearby buildings. However, there are unrestricted views on either side of East Laurel Drive at the Natividad Creek Detention Basin and near the Monterey County East Laurel Facility. The boardwalk along the detention basin would offer unobstructed views as well as viewing areas throughout the segment. Overall, no project improvements would substantially degrade the existing character of the surrounding area. Further, the project site is located within the area of both urban and rural land uses, with agricultural and open fields bordering developed areas. The project proposes demolition of some existing curbs and only nominal construction. No scenic resources would be impacted or damaged. Therefore, no impacts would occur and no mitigation is required.

The proposed project includes construction of pedestrian facilities, including lighting improvements, a boardwalk, and landscaping. The proposed sidewalks and boardwalk would link other neighborhoods and would be consistent with the surroundings. The proposed project would not introduce new buildings and would beautify the existing conditions. Therefore, no impact would occur and no mitigation is required.

Threshold (d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less than Significant Impact. As discussed in the Project Description, the project site and the surrounding area include urban land uses as well as with agricultural and open fields interspersed between East Laurel Drive and Constitution Boulevard. Existing light sources around the project site are typical of developed, urban areas including but not limited to light standards, traffic signals, lighting internal to structures, illuminated signs, and headlights from vehicles. The proposed project would improve pedestrian safety by providing more lighting along the trail and boardwalk areas. Although the project would introduce more sources of light, lighting fixtures would be oriented downward which would reduce glare to oncoming traffic. Adherence to the Municipal Code 37-50.480 Outdoor Lighting would preclude significant impacts associated with light and glare. Therefore, impacts would be less than significant and no mitigation is required.

Mitigation Program

Standard Conditions and Requirements

No standard conditions or requirements are applicable to the project.

Mitigation Measures

No mitigation is required.

4.2 Agricultural and Forestry Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference Source(s)
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 non-agricultural use?	☐	☐	☐	☒	10, 20
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	19
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	14
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	14
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒	14

Setting

Agricultural uses are adjacent to the southbound lanes of East Laurel Drive.

Impact Discussion

Threshold (a) Would the project convert Farmland to non-agricultural use?

Threshold (b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

Threshold (c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

Threshold (d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Threshold (e) Would the project involve other changes in the existing environment which, due to their location or nature could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest land?

No Impact. The California Natural Resources Agency's Farmland Mapping and Monitoring Program (FMMP) provides maps and data to decision-makers to assist them in making informed decisions regarding the planning of the present and future use of California's agricultural land resources. The area surrounding the project site has the following farmland designations: Prime Farmland, Unique Farmland, and Other Land. However, project construction would occur within the existing rights-of-way and would not encroach upon designated farmland. A majority of the project improvements would be adjacent to designated Urban and Built-up land on the northbound side of East Laurel Drive. Several light standards are proposed on southbound East Laurel Drive, which would be directly adjacent to Prime and Unique Farmland. However, the construction and operation of these light standards would not adversely impact the designated Farmland due to the precise placement of the light standards. Therefore, the project would not directly or indirectly result in the conversion of property from agricultural or timberland uses.

A Williamson Act contract between local governments and private landowners restricts specified parcels of land to agricultural or related open space use in return for a lower property tax assessment. The project site would not require right-of-way acquisition of private lands and is not under a Williamson Act contract. The project site is designated as "None-Enrolled Land – Land not enrolled in a Williamson Act contract and not mapped by FMMP as Urban and Built-Up Land or Water." Project implementation would not conflict with either existing zoning for agricultural uses or timberland production, or with lands under a Williamson Act Contract. No impacts to agricultural and forestry resources would occur and no mitigation is required.

Mitigation Program

Standard Conditions and Requirements

No standard conditions or requirements are applicable to the project.

Mitigation Measures

No mitigation is required.

4.3 Air Quality

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference Source(s)
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	Appendix A, 10
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?	☐	☐	☒	☐	Appendix A, 10
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	Appendix A
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐	Appendix A

Setting

The project is within Monterey County, which lies within the North Central Coast Air Basin (NCCAB). Marine breezes from Monterey Bay dominate the climate in this portion of the NCCAB. Westerly winds are dominant in all seasons but are strongest and most persistent during the spring and summer months.

The extent and severity of the NCCAB's air pollution is a function of the area's natural physical characteristics (weather and topography), as well as human-created influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation/dispersion of pollutants throughout the NCCAB. In general, the coastal area's air pollution potential is relatively low due to persistent winds. However, the NCCAB is subject to temperature inversions that restrict vertical mixing of pollutants.

The Monterey Bay Air Resources District (MBARD) is the agency with primary responsibility for assuring that federal and State ambient air quality standards are attained and maintained in the NCCAB. The NCCAB encompasses three counties: Monterey, San Benito, and Santa Cruz. The MBARD is charged with regulatory authority over stationary emission sources, monitoring NCCAB air quality, providing guidelines for analysis of air quality impacts pursuant to CEQA, and preparing an air quality management plan to maintain or improve air quality in the NCCAB.

The NCCAB is in non-attainment with State-mandated thresholds for ozone and suspended particulate matter. With respect to federal standards, the NCCAB has either achieved attainment or is unclassified.

The MBARD is delegated with the responsibility at the local level to implement both federal and State mandates for improving air quality in the NCCAB through an air quality plan.

The MBARD adopted the Air Quality Management Plan for the Monterey Bay Region ("Air Quality Plan") in 1991 and completed several updates, most recently the 2012-2015 Air Quality Management Plan, adopted on March 15, 2017, which is an update to the and review of the 2012 Triennial Plan. It incorporates by reference portions of the 2008 Air Quality Management Plan for the Monterey Bay Region and the 2012 Triennial Plan. The Air Quality Plan provides measures to control emissions of volatile organic compounds from stationary and mobile sources to meet the ozone standard mandated by the California Clean Air Act. In 2006, the California Air Resources Board made the ambient air quality standards more stringent by adding an 8-hour ozone average to the standard.

The Air Quality Plan addresses only attainment of the State ozone standard. Attainment of the State standard for particulate matter less than 10 microns in diameter (PM_{10}) is addressed in the MBARD's 2005 Report on Attainment of the California Fine Particulate Standard in the Monterey Bay Region - Senate Bill (SB) 656 Implementation Plan, which was adopted in December 2005. The plan focuses on reduction of fugitive dust and diesel particulate matter emissions.

Threshold (a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The primary purpose of the project is to enhance pedestrian safety and increase connectivity, mobility, and access for transit users, bicyclists, and pedestrians. The MBARD's adopted procedure to determine project consistency with the Air Quality Plan is based on residential units. The proposed project does not include any new housing or land uses that are associated with population growth. The proposed improvements would not result in significant vehicle trips or emissions. Therefore, implementation of the proposed project would not result in conflicts with or obstruction of implementation of the Air Quality Plan. No impacts would occur.

Construction Emissions

Less Than Significant Impact. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated and would include carbon monoxide (CO), nitrogen oxides (NO_X), volatile organic compounds (VOCs), Sulphur dioxide (SO_2), directly-emitted particulate matter (PM) (particulate matter particulate matter less than 2.5 microns in size [$PM_{2.5}$] and particulate matter less than 10 microns in size [PM_{10}]), and toxic air contaminants (e.g., diesel exhaust PM).

The regional construction emissions associated with development of the proposed project were calculated using CalEEMod version 2016.3.2. For the purposes of the air quality analysis, site disturbance would be approximately 2.12 acres and the construction timeframe would be approximately six months. Typical construction detail equipment includes cement and mortar mixers, graders, scrapers, rollers, tractors, loaders, and air compressors. The MBARD employs only one quantitative threshold in connection with the above-referenced criteria air pollutants to determine construction-related air quality impacts: it uses a threshold of 82 lbs/day of PM_{10} for determining significance of construction-related emissions. Table 4.3-1, *Summer Construction Emissions Summary and Significance Evaluation,* and Table 4.3-2,

Winter Construction Emissions Summary and Significance Evaluation, show construction emission in the summer and winter periods.

Table 4.3-1: Summer Construction Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated(lbs/day)	Mitigated(lbs/day)	Threshold	Significant?
ROGs (VOCs)	3.38	3.38	--	No
NO_X	23.92	23.92	--	No
CO	16.88	16.88	--	No
SO_X	0.03	0.03	--	No
Total PM_{10}	7.71	3.95	82	No
Total $PM_{2.5}$	4.33	2.40	--	No

Table 4.3-2: Winter Construction Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated(lbs/day)	Mitigated(lbs/day)	Threshold	Significant?
ROGs (VOCs)	3.38	3.38	--	No
NO_X	24.00	24.00	--	No
CO	16.92	16.92	--	No
SO_X	0.03	0.03	--	No
Total PM_{10}	7.71	3.95	82	No
Total $PM_{2.5}$	4.33	2.40	--	No

As shown in Table 4.3-1 and Table 4.3-2, construction of the proposed project would result in a maximum of 4.33 lbs/day of PM_{10}, which is below the MBARD threshold of 82 lbs/day of PM_{10}. Further, the proposed project would be required to comply with MBARD's dust control rules. Therefore, impacts would be less than significant and no mitigation would be required.

Operational Emissions

Long-term operational emissions are typically attributed to vehicle trips (mobile emissions), the use of natural gas (energy source emissions), and consumer products, architectural coatings, and landscape maintenance equipment (area source emissions). Implementation of the proposed project would enhance pedestrian safety, increase connectivity and mobility, and provide access for transit users, bicyclists, and pedestrians. The project would serve existing pedestrians and bicyclists and would not generate growth. The proposed project does not include any new housing but instead is a pedestrian connection that would enhance existing facilities. Further, the proposed project would not generate new vehicle trips and no stationary sources are proposed. Therefore, operational emissions are less than significant and no mitigation is required.

Threshold (b) Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard?

Less Than Significant Impact. The MBARD's 2008 CEQA Air Quality Guidelines provides criteria for determining cumulative impacts and consistency. The CEQA Air Quality Guidelines note that a project

which is inconsistent with an Air Quality Plan would have a significant cumulative impact on regional air quality. As discussed in Impact (a) above, the project is consistent with the Air Quality Management Plan for the Monterey Bay Region. In addition, the proposed project's construction and operation emissions would not exceed MBARD thresholds as noted in Table 4.3-1 and Table 4.3-2. The NCCAB is currently in non-attainment for State ozone and PM_{10} standards which represents an existing cumulatively significant impact within the NCCAB. Ozone precursors include reactive organic gases (ROG) and NO_X. The project would not exceed quantitative thresholds for either of these ozone precursors. Similarly, PM_{10} thresholds also would not be exceeded for construction or operation of the project. Therefore, the project would not make a considerable contribution to this existing, cumulatively significant impact. Impacts would be less than significant.

Threshold (c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Under CEQA, residences, schools, daycare centers, and healthcare facilities, such as hospitals, or retirement and nursing homes, are considered sensitive receptors. Multi-family residences are located south of the intersection of East Laurel Drive at North Sanborn Road, and on both sides of East Laurel Drive between North Sanborn Road and St. Edwards Drive. Residences are within 150 feet of East Laurel Drive. Natividad Medical Center is approximately 500 feet from the intersection of East Laurel Drive at Constitution Boulevard. The proposed project involves enhancing existing trails and pedestrian improvements which would not result in stationary emissions. The project would not alter the number of parking spaces or change existing land use activities; therefore, the project would not result in a substantial increase in traffic-related pollutant concentrations that could affect sensitive receptors. Further, the dust and equipment exhaust emissions during construction would be minimal and would be controlled by compliance with MBARD Rule 400 (Visible Emissions). Rule 400 limits discharge of visible air pollutant emissions into the atmosphere from any emission source for a period or periods aggregating more than three minutes in any one hour, as observed using an appropriate test method, prohibited.

Construction and Operation Period Toxic Air Contaminant Impacts

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The health risk associated with high concentrations of diesel exhaust PM_{10} from construction equipment has a carcinogenic and chronic effect, but no short-term acute effect is currently recognized. The project could potentially expose sensitive receptors to temporary health hazards associated with TACs due to the operation of construction equipment. However, concentrations of mobile source diesel particulate matter would only be present during temporary construction activities, and as previously shown in Table 4.3-1-2, PM_{10} emissions associated with construction activities would be well below the 82 lbs/day threshold established by MBARD. Furthermore, the project operation emissions were negligible; therefore, no operational TAC impacts would occur. Compliance with MBARD recommended dust control measures would further reduce PM_{10} emissions. The health risk associated with construction emissions would be less than significant and no mitigation is required.

Operational CO Hotspots

Localized high levels of CO (CO hotspot) are associated with traffic congestion and idling or slow-moving vehicles. Impacts related to CO hotspots would be less than significant because the proposed project would not generate new vehicle trips and would only have short-term temporary traffic impacts during

construction. The primary purpose of the project is to enhance pedestrian safety and increase connectivity, mobility, and access for transit users, bicyclists, and pedestrians. Pedestrians and bicyclists and adjacent residents would not be exposed to substantial pollutant concentrations and the impact would be less than significant.

Threshold (d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses that would be associated with objectionable odors. Odor emissions from the proposed project would be limited to odors associated with typical construction such as vehicle and engine exhaust and idling. The project does not include any known sources of objectionable odors for the long-term operations phase. In addition, construction-related odors would be short-term, would disperse rapidly, and would cease upon completion. Therefore, the project is not expected to result in significant impacts related to objectionable odors during construction or operation. Therefore, impacts would be less than significant and no mitigation is required.

Mitigation Program

Standard Conditions and Requirements

AQ SC-1: **MBARD Rule 400 – Visible Emissions.** Project applicants shall not discharge of visible air pollutant emissions into the atmosphere from any emission source for a period or periods aggregating more than three minutes in any one hour, as observed using an appropriate test method, is prohibited.

AQ SC-2: **MBARD Fugitive Dust Control.** Although the project would not exceed thresholds of significance for PM_{10}, MBARD recommends the use of the following Best Management Practices for the control of short-term construction generated emissions in any event:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take

corrective action within 48 hours. The phone number of the Monterey Bay Air Resources District shall be visible to ensure compliance with Rule 402 (Nuisance).

- Limit the area under construction at any one time.

Mitigation Measures

No mitigation is required.

4.4 Biological Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference Source(s)
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 U.S. Fish and Wildlife Service?	☐	☒	☐	☐	Appendix B, 10
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	Appendix B, 10
c. Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐	Appendix B, 10
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?	☐	☒	☐	☐	Appendix B
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	Appendix B, 10
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?	☐	☐	☐	☒	Appendix B, 10

Setting

The project site is in the City of Salinas. Habitat types on the project site include non-native grassland, ruderal vegetation (weeds), riparian woodland, coyote brush/poison oak scrub, and landscape tree groves. There are landscape trees along East Laurel Drive, along Constitution Boulevard, and in backyards of nearby residences. The project area also includes a riparian mitigation area (area planted with native trees and shrubs).

The Natividad Creek Detention Basin is near northbound East Laurel Drive and supports open water and is ringed by riparian woodland vegetation. Riparian woodland also grows along Gabilan Creek, a perennial waterway in the northern portion of the project site, and along an unnamed tributary to Gabilan Creek that is along Constitution Boulevard.

The *East Laurel Drive Sidewalk Project Biological Report* was prepared by Biotic Resources Groups (August 2018) to address potential impacts to biological resources associated with the proposed project. The report is summarized in this Initial Study and included as Appendix B.

Impact

Threshold (a) Would the project have a substantial 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 U.S. Fish and Wildlife Service?

Special Status Plant Species

Less Than Significant Impact with Mitigation. The biological resources were assessed through literature review and field observations. Plant species of concern include those listed by either the federal or State resource agencies as well as those identified as rare (i.e., List 1B) by the California Native Plant Society (CNPS). The search of the CNPS and California Natural Diversity Database inventories for the area resulted in several special status plant species of concern known, or with potential, to occur within the project area. A field reconnaissance of the area was conducted on June 20, 2018. A previous survey was conducted on November 23, 2015, as part of a preliminary constraints analysis for the project. Exhibit 5, *Distribution of Vegetation Types*, and Table 4.4-1, *Plant Materials*, identify the plant materials on and/or adjacent to the project site.

Table 4.4-1: Plant Materials

Vegetation Type	Plant Association
Non-native Grassland/ Ruderal	Italian ryegrass, bull mallow, filaree, wild mustard
Riparian Woodland	Black cottonwood - willow – sycamore – box elder
Coyote Brush/ Poison Oak Scrub	Coyote brush – poison oak – California blackberry
Landscape Trees	Eucalyptus – Monterey cypress
Source: Biotic Resources Group, 2018.	

Sensitive habitats are defined by local, State, or federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. The California Department of Fish and Wildlife (CDFW) classifies and ranks the State's natural communities to assist in the determining the level of rarity and imperilment.

The proposed project would affect several habitats. Significant impacts to biological resources were determined to occur to habitats that are sensitive and/or regulated by State or federal laws or City policies. Impacts to the coyote brush scrub, non-native grassland, and landscape trees are not considered a significant impact to botanical resources as these habitats are common and were found to not support special status species.

Congdon's Tarplant (*Centromadia parryi ssp. congdonii)* is recognized as rare by the California Native Plant Society (List 1B). The species is also considered rare by the CDFW; however, the species is not currently listed as rare or endangered under the California Endangered Species Act. The species is also not currently listed as rare or endangered under the Federal Endangered Species Act. Congdon's tarplant was observed on the Natividad Creek Detention Basin. The tarplant was observed growing amid grassland and coyote brush scrub on a low terrace approximately 75 feet east of the project site. Impacts to tarplant would be a significant impact. Mitigation Measure BIO-1 is proposed and requires the fencing of the area during construction to prevent impacts to the occupied areas.

No other special status plant species were documented on the site during the survey, and none are expected due to a lack of suitable habitat.

Special Status Wildlife Species

Special status wildlife species include those listed, proposed or candidate species by the federal or the State resource agencies as well as those identified as State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act. Special status wildlife species were evaluated for their potential presence in the project area.

In general, the habitats with the project site provide only marginal habitat for native wildlife species because of the relatively narrow riparian corridor, the high human use within the project site and the surrounding developments, the high volume of traffic on East Laurel Drive, and the compacted soils of the grassland. Most wildlife species expected to occur on the site are those that can tolerate high human presence in the surrounding areas. However, the riparian corridor may provide seasonal forage and nesting habitat for neotropical migrant birds, and nesting habitat for some raptors that are able to tolerate high human presence such as a red-shouldered hawk. One special status species that may occasionally occur along the Detention Basin, the California red-legged frog, is discussed in more detail below.

EXHIBIT 5: Distribution of Vegetation Types

East Laurel Drive Pedestrian Improvements

Kimley»Horn

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The California red-legged frog (*Rana draytonii*) is a State Species of Special Concern and federally listed as threatened. This species is found in quiet pools along streams, in marshes, and ponds. Much of its habitat has undergone significant alterations in recent years, leading to extirpation of many populations. Other factors contributing to its decline include its former exploitation as food, water pollution, and predation and competition by the introduced bullfrog and green sunfish. The habitat for California red-legged frogs along these portions of Gabilan and Natividad Creeks is poor, and the impoundment (Detention Basin) of Natividad Creek is manipulated for flood control. There are no off-channel slow-moving or ponded areas present in this portion of Gabilan Creek for breeding. It is unknown if fish inhabit the Natividad Creek Detention Basin but many surveys have documented large populations of bullfrogs. The closest documented occurrence of California red-legged frogs to the project site is approximately 2.5 miles northeast in a tributary to Natividad Creek. The red-legged frog is usually absent from urbanized creeks and waterways. However, this frog is capable of relatively long-distance movements, and may occasionally traverse this portion of Gabilan Creek or find summer habitat within the Natividad Creek Detention Basin when water is present. The red-legged frog is unlikely to occur within most of the project site and the proposed project does not include any work within Gabilan Creek. Therefore, impacts would be less than significant with mitigation incorporated.

Threshold (b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Threshold (c) Would the project have a substantial adverse effect on a State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact with Mitigation. The CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Department of Fish and Game Code. The CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake which supports fish or wildlife. Along watercourses, CDFW jurisdictional limit typically extends to the top of bank or to the edge of riparian habitat if such habitat extends beyond top of bank (outer drip line), whichever is greater. Activities within these areas may be subject to permit action by CDFW which has a no-net-loss policy for riparian habitat. CDFW requires riparian habitat replacement ratio for impacts to riparian woodland, pursuant to the project's CEQA review and issuance of a Streambed Alteration Agreement.

Water quality in California is governed by the Porter-Cologne Water Quality Control Act and certification authority under Section 401 of the Clean Water Act, as administered by the Regional Water Quality Control Board (RWQCB). The Section 401 water quality certification program allows the State to ensure that activities requiring a federal permit or license comply with State water quality standards. Water quality certification must be based on a finding that the proposed discharge would comply with water quality standards which are in the regional board's basin plans. The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the Waters of the State to file a report of waste discharge. The RWQCB issues a permit or waiver that includes implementing water quality control plans that take into account the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features and saline waters.

The U.S. Army Corps of Engineers regulates activities within Waters of the United States pursuant to congressional acts: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (1977, as amended). Section 10 of the Rivers and Harbors Act requires a permit for any work in, over, or under navigable waters of the United States. Navigable waters are defined as those waters subject to the ebb and flow of the tide to the Mean High Water mark (tidal areas) or below the Ordinary High Water Mark (OHWM) (freshwater areas).

The sidewalk construction would be proximate to the riparian woodland along the Natividad Creek Detention Basin, Gabilan Creek, and an unnamed drainage swale. However, construction would not impact these resources. Similarly, sidewalk construction would be proximate to the riparian woodland along Constitution Boulevard; however, construction would not impact this resource. The project would not impact Waters of the U.S. or Waters of the State because work would occur outside of creeks and wetlands. Trail construction would require trimming of vegetation along the outer edge of willow riparian along a section of East Laurel Drive where vegetation grows outward to the existing roadway and short section of trail along Constitution Boulevard where a willow is within the landscape trees. However, this would be temporary and is not considered a significant impact.

The City of Salinas General Plan requires a 100-foot setback between development and creeks (measured from top-of bank or outer edge of the riparian woodland, whichever is greater). Most of the project is within the City's 100-foot creek setback area(s): Gabilan Creek, Natividad Creek Detention Basin, drainage swale near Vietnam Veterans Memorial Park, and intermittent creek along Constitution Boulevard. Trail lighting would be set back 30 feet from the creeks. Encroachments into the creek setback may be considered pursuant to the General Plan COS-17 Implementation Program. Development activities may be considered for certain areas within the City if the encroachment would not have a significant adverse impact on the riparian and wetland resources because mitigation measures would achieve a comparable or better level of mitigation than the 100-foot setback, or the property is adjacent to a reclamation ditch and no riparian or wetland resources are identified outside the ditch. Implementation of Mitigation Measure BIO-2 would protect existing riparian woodland from inadvertent impacts during sidewalk construction. Impacts would be less than significant with mitigation incorporated.

Threshold (d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact with Mitigation. Native migratory birds and their nests are protected under the provisions of the federal Migratory Bird Treaty Act *(*16 USC § 703 et seq.) and the California Fish and Game Code (§ 3503 et. seq.). The loss of any active nests of a native bird during construction would be considered a significant impact. Construction activities have the potential to cause direct and indirect impacts to nesting migratory birds and raptors within the riparian corridor of Gabilan Creek and Natividad Creek Detention Basin, and tree trimming along Constitution Boulevard. Removal of vegetation, removal of tree limbs, and increased noise and dust from construction activities has the potential to indirectly impact nesting birds potentially resulting in the abandonment of nests by parent birds, and death to eggs or nestlings. Mitigation Measure BIO-3 would avoid direct or indirect impacts to breeding birds and migratory birds. Compliance with this mitigation measure would reduce potential impacts to nesting birds to a less than significant level.

Lighting can inadvertently result in an indirect impact on the behavioral patterns of nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife. Wildlife present at or near the project site may already be acclimated to current lighting associated with traffic from the adjacent roadways and development. Pedestrian trail lighting is proposed west of the entrance to Monterey County East Laurel Facility near the Vietnam Veterans Memorial Park parking lot. The trail lighting extends approximately 800 feet north from the parking lot. Low-profile pedestrian trail lights, measuring approximately 3.5 feet tall, would be spaced out approximately 100 feet from each other, in alternating sides of the trail. Trail lighting illumination would be limited to 21 watts and be directed away from habitat to the maximum extent possible. Because of existing lighting in the area and the limited amount of new lighting, no significant impacts would occur.

Threshold (e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. (e) Refer to Impact (b) above. The City does not have an adopted tree preservation policy or ordinance. Compliance with Salinas Municipal Code 35.3 is required to ensure the proper tree species are planted according to the official street tree plan approved by the council. In addition, applicants must obtain approval from the public works director for any planting or removal of trees in the City (Salinas Municipal Code 35.9). No impact would occur.

Threshold (f) Would the project 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. The project site is not included in a Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan. No impact would occur and no mitigation is required.

Mitigation Program

Standard Conditions and Requirements

No standard conditions or requirements are applicable to the project.

Mitigation Measures

MM BIO-1: **Congdon's Tarplant.** Prior to the initiation of any ground disturbing activities, a qualified biologist shall demarcate the limits of avoidance with construction fencing such that no work activity occurs within the fenced area. This fencing shall remain in-place until all project construction is complete.

MM BIO-2: **Riparian Resources.** Prior to the first action and/or permit that would allow for site disturbance, the following actions shall be taken:

a) Temporary construction fencing shall be placed at the edge of the construction area; such fencing shall be placed outside the dripline of the riparian woodland, wherever feasible. This fencing shall remain in-place until all project construction is complete.

b) Erosion control measures/construction Best Management Practices (BMPs) shall be implemented during construction to prevent any inadvertent impacts to Gabilan Creek, Natividad Creek Detention Basin, the drainage swale near Veterans Memorial Park, and the creek along Constitution Boulevard. Such measures shall include use of

silt fencing, straw wattles and seeding/revegetation of disturbed areas prior to the onset of the winter rainy season.

c) Minimize limbing and trimming of riparian vegetation to only that needed for construction clearance. Allow vegetation to re-grow up to edge of sidewalk.

MM BIO-3: To avoid impacts to migratory birds and raptors that may be present in the project area, grading and all ground disturbances should be scheduled to occur outside the primary bird-breeding season on the Central California Coast. To avoid impacts to breeding birds at this site, ground disturbance (including stripping, vegetation removal, grading, and excavation) should be scheduled for the period August 1 to February 1 of any given year unless a qualified biologist, approved by the City of Salinas, surveys the impact area. No more than 14 days prior to construction, a qualified biologist shall survey the development areas and nearby vicinity for nesting birds, including raptors and migrants. If nesting birds are observed within the development area, construction shall be postponed until the biologist confirms that all young have fledged. If birds are nesting nearby and the biologist determines the construction may cause nest failure, the biologist shall recommend an appropriate buffer area. The limits of avoidance shall be demarcated with flagging or fencing. The biologist shall record the results of the recommended protective measures and shall submit a memo summarizing any nest avoidance measures to the City to document compliance with applicable State and federal laws pertaining to the protection of native birds.

4.5 Cultural Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐	Appendix C, 10
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐	Appendix C, 10
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐	Appendix C

Setting

Pacific Legacy conducted a cultural resource investigation of the project site (July 2018) to address potential impacts to historic and archaeological resources associated with implementation of the proposed project. The report is summarized below and is included as Appendix C of this Initial Study.

Discussion

Threshold (a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines § 15064.5?

Less Than Significant Impact. Three historic period built environment buildings and/or building complexes are identified in the Historic Property Data File for Monterey County. The building complex listed as 639 North Sanborn Road or the "Moore Lumber Company" is comprised of 18 buildings listed as Buildings A-R. 651 North Sanborn Road or the "Tombleson Incorporated Office" is one building. Both addresses are listed for the retail center, including a gas station, on the northwest corner of North Sanborn Road at East Laurel Drive. 655 South Sanborn Road or the "Porras Restaurant" is comprised of two buildings that include a restaurant and office and is approximately 1.5 miles south of the project site. All three sites are listed as status code 6Y, meaning that the site was determined ineligible for National Register of Historic Places and not evaluated for the California Register of Historical Resources or Local listing. Project implementation would not impact these structures. Therefore, impacts to historical resources would be less than significant and no mitigation is required.

Threshold (b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Less Than Significant Impact with Mitigation. There are no known archaeological sites on or within a 0.25-mile radius of the project area. Eleven prior cultural resources surveys have been conducted within 0.25 mile of the site, all of which yielded negative results. As a part of the proposed project, an archaeological pedestrian survey was conducted on June 12, 2018. No prehistoric or historic period cultural materials were observed during a surface examination of the project area. Areas of exposed soil at embankments,

the base of vegetation and shrubbery, burrows, along edges of the trails, at the edge of the ditch, grassy areas, and earthen footpaths were also inspected for signs of midden, shell, charcoal, and lithic material.

The likelihood of encountering archaeological resources in the project site is considered low. Construction activities for the project would include excavation and grading. Therefore, while low, there is the potential for the project to affect a previously unidentified archaeological resource. Mitigation Measures CUL-1 through CUL-3 are proposed to ensure any archaeological and tribal resources that may be found on the site are properly identified and protected. With inclusion of these measures, potential project impacts would be reduced to a less than significant level. Please also refer to Section 4.17, Tribal Cultural Resources, in this Initial Study.

Threshold (c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No formal cemeteries are in or near the project area. Most Native American human remains are found in association with prehistoric archaeological sites. As discussed previously, the project site is not proximate to identified prehistoric archaeological resources. Given the extent of disturbances from the residential and previous agricultural uses, it is unlikely that ground-disturbing activities associated with the construction of the sidewalk and pedestrian improvements would exceed depths of previous disturbance. However, there is always the possibility that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. Pursuant to State of California Health and Safety Code provisions (notably § 7050.5-7055), should any human remains be uncovered, all construction activities must cease and the County Coroner be immediately contacted. Compliance with SC CUL-1 is required. Therefore, the proposed project has little potential to disturb human remains.

Mitigation Program

Standard Conditions and Requirements

SC CUL-1: California Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered, disturbance of the site shall be halted until the coroner has conducted an investigation into the circumstances, manner and cause of death, and the recommendations concerning the 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 coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Mitigation Measures

MM CUL-1: Prior to initiating ground disturbing activities within the project area, construction personnel should be alerted to the possibility of encountering buried prehistoric or

historic period cultural remains. Personnel should be advised that upon discovery of buried archaeological deposits, work in the immediate vicinity of the find should cease and a qualified archaeologist should be contacted immediately. Once the find has been identified, plans for the treatment, evaluation, and mitigation of impacts to the find shall be developed if it is found to be eligible for the National Register of Historic Places or the California Register of Historical Resources.

MM CUL-2: Prior to initiating ground disturbing activities within the project area, the applicant shall provide evidence to the City of Salinas that a qualified professional (i.e., archaeologist, historian, architect, paleontologist, Native American Tribal monitor), has been retained. The selection of the qualified professional(s) shall be subject to the acceptance of the City. The City of Salinas shall ensure that the construction contractor provides access for Native American monitoring. This provision shall be included on project plans and specifications. The site shall be made accessible to any Native American tribe requesting to be present, provided adequate notice is given to the construction contractor and that a construction safety hazard does not occur. The monitor(s) shall be approved by a local tribal representative and shall be present on site during the construction phases that involve any ground-disturbing activities in native soils (e.g., no fill material). The monitor(s) shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. In addition, the monitor(s) shall be required to provide insurance certificates, including liability insurance, for any archaeological resource(s) encountered during grading and excavation activities pertinent to the provisions outlined in the CEQA, California Public Resources Code Division 13, Section 21083.2 (a) through (k).

Neither the City of Salinas nor construction contractor shall be financially obligated for any monitoring activities. If evidence of any tribal cultural resources is found during ground-disturbing activities, the monitor(s) shall have the capacity to halt construction in the immediate vicinity of the find to recover and/or determine the appropriate plan of recovery for the resource. The recovery process shall not unreasonably delay the construction process. Construction activity shall not be contingent on the presence or availability of a monitor, and construction may proceed regardless of whether a monitor is present on site. The on-site monitoring shall end when the project site grading and excavation activities in native soil areas is completed.

MM CUL-3: Archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Native American monitor. If the resources are Native American in origin, the tribe shall coordinate with the City of Salinas regarding treatment and curation of these resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Section 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) shall be the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis.

4.6 Energy

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐	Appendix A
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐	Appendix A

Background: Building Energy Conservation Standards

Senate Bill 350. Senate Bill (SB) 350 (de Leon) was signed into law in September 2015 and establishes tiered increases to the Renewable Portfolio Standard—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 100 was signed into law September 2018 and increased the required Renewable Portfolio Standards.

Senate Bill 100. On September 10, 2018, then Governor Brown signed SB 100. Under SB 100, the total kilowatt-hours of energy sold by electricity retailers to their end-user customers must consist of at least 50 percent renewable resources by 2026, 60 percent renewable resources by 2030, and 100 percent renewable resources by 2045. SB 100 also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Monterey Bay Community Power Authority (MBCP). The Monterey Bay Community Power (MBCP), formed in 2017, is based on a local energy model called community choice energy that partners with the local utility (Pacific Gas & Electric Company [(PG&E]) to provide consolidated billing, power transmission and distribution, customer service and grid maintenance services. MBCP's power portfolio is carbon-free, sourced from renewable sources such as solar, wind, and carbon-free sources such as hydroelectric generation. The City of Salinas is part of the MBCP.

Threshold (a) Would the project result in a potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Electricity

PG&E and MBCP provides electricity to the project area. The proposed project is not a typical land use project associated with electricity usage. As proposed, the project would install approximately 86 lights including street and pedestrian lighting. The total watts for the lighting system totals 6,226 watts. Assuming 12-hour usage per day, total Watts per year is 27,269,880, or 27,269 kWh/year. Therefore, project implementation would result in a permanent increase in electricity over existing conditions. The increased demand is expected to be adequately served by the existing PG&E electrical facilities. Total electricity demand in PG&E's service area is forecast to increase by approximately 15,000 GWh—or 15 billion kWh—between 2018 and 2030.[2] The increase in electricity demand from the project would represent an insignificant percent increase compared to overall demand in PG&E's service area. Additionally, as noted above, MBCP works in partnership with PG&E to provide electricity to the area.

Project implementation would not interfere with achievement of the 60 percent Renewable Portfolio Standard set forth in SB 100 for 2030 or the 100 percent standard for 2045. These goals apply to PG&E, MBCP, and other electricity retailers. As electricity retailers reach these goals, emissions from end-user electricity use would decrease from current emission estimates. Therefore, projected electrical demand would not significantly impact PG&E's level of service.

Natural Gas

PG&E also provides natural gas service to the project area. The project does not propose any new structural or operations that would use natural gas. Natural gas consumption would be minimal during construction as well. Therefore, the natural gas demand from the proposed project would represent a nominal percentage of overall demand in PG&E's service area. The project would not result in a significant impact due to wasteful, inefficient, or unnecessary consumption of natural gas resources, during project construction or operation.

Fuel

During construction, transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Most construction equipment during grading would be gas-powered or diesel-powered, and the later construction phases would require electricity-powered equipment. Idling of in-use off-road heavy-duty diesel vehicles in California are limited to five consecutive minutes per Title 13, California Code of Regulations, Section 2449(d)(3). Project construction equipment would also be required to comply with

[2] California Energy Commission, California Energy Demand 2018-2030 Revised Forecast, Figure 44 Historical and Projected Baseline Consumption PG&E Planning Area, Accessed June 10, 2019.

the latest U.S. Environmental Protection Agency (U.S. EPA) and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel use.

The project would entail construction activities that would use energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). Contractors would be required to monitor air quality emissions of construction activities using applicable regulatory guidance such from MBARD CEQA Guidelines. This requirement indirectly relates to construction energy conservation because when air pollutant emissions are reduced from the monitoring and the efficient use of equipment and materials, energy use is reduced. There are no aspects of the project that would foreseeably result in the inefficient, wasteful, or unnecessary use of energy during construction activities.

Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary use of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive and that there is a significant cost-savings potential in green building practices. The use of battery-powered tools and equipment that do not rely on gas to operate are also becoming more common.[3] Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure; impacts would not be significant.

During operations, energy consumption would be associated with lighting along the pedestrian paths and roadways. The project is a pedestrian and trails improvement project which would enhance circulation and safety in the project area, thus reducing congestion and energy consumption.

The project site is also near public transportation (bus routes) access, further reducing the need to drive. Consequently, the proposed project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Project operations would not substantially affect existing energy or fuel supplies or resources. The project would comply with applicable energy standards and new capacity would not be required. Fuel consumption associated with vehicle trips generated by the proposed project would not be considered inefficient, wasteful, or unnecessary.

The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts are less than significant, and no mitigation is required.

Threshold (b) Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The MBCP Implementation Plan is a plan for establishing a Community Choice Aggregation (CCA) program. The proposed project involves pedestrian trail improvements and would not conflict with implementation of the CCA program. AMBAG's *2040 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 as well as an overall GHG target for the project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of EOs 5-03-05 and B-30-15. The project is consistent with regional strategies to reduce passenger vehicle miles traveled (VMT). The

[3] Jobsite, *Construction's Electric Future*, June 11, 2018, available at https://jobsite.procore.com/construction-s-electric-future, accessed February 21, 2019.

proposed project is a pedestrian and trails improvement project, which aims to enhance circulation and safety in the project area, thus reducing congestion and energy consumption. The project area also includes transit stops that connect the project site to the rest of the City. Providing enhanced and safer pedestrian facilities promotes alternative means of transportation and is a key strategy to reducing regional VMT. Therefore, in addition to being a pedestrian improvement trail project, the project would be consistent with regional goals to reduce trips and VMT by locating enhancing infrastructure to promote alternative transportation solutions, which reduces vehicle trip lengths. The project would not conflict with the stated goals of the MTP/SCS. Therefore, the project would not interfere with AMBAG's ability to achieve the region's post-2020 mobile source GHG reduction targets outlined in the 2040 MTP/SCS. Potential impacts are considered less than significant, and no mitigation is required.

Mitigation Program

Standard Conditions and Mitigation Measures

No standard conditions or mitigation measures are applicable to the proposed project.

4.6 Geology and Soils

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Directly or indirectly potential substantial adverse effects, including the risk of loss, injury, or death involving: 1) rupture of a known earthquake fault, 2) strong seismic ground shaking, 3) seismic-related ground failure, or 4) landslides	☐	☐	☒	☐	Appendix D, 1, 10, 17
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	Appendix D, 1, 17
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?	☐	☐	☒	☐	Appendix D, 1, 10, 17
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐	Appendix D, 1, 10, 17
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒	Appendix D, 1, 17
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	Appendix C, 10

Setting

A Geotechnical Investigation has been prepared by Cornerstone Earth Group (August 2018) to address potential impacts related to geological resources associated with implementation of the proposed project. The report is summarized below and is included as Appendix D of this Initial Study.

Discussion

Threshold (a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 1) rupture of a known earthquake fault, 2) strong seismic ground shaking, 3) seismic-related ground failure, or 4) landslides?

Less Than Significant Impact. The Alquist-Priolo Earthquake Fault Zoning Act (1972) and the Seismic Hazards Mapping Act (1990) direct the State Geologist to delineate regulatory "Zones of Required Investigation" to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-triggered ground failures. Cities and counties affected by the zones must regulate certain development "projects" within them. Earthquake hazard zones define areas subject to three distinct types of geologic ground failures: (1) fault rupture, where the surface of the earth breaks along a fault; (2) liquefaction, in which the soil temporarily turns to quicksand and cannot support structures; and (3) earthquake-induced landslides. The project site is not in a Zone of Required Investigation. Additionally, the Geologic Hazards Map for Monterey County indicates no faults traverse the project site.

The project site is not within an Alquist Priolo fault zone. No known surface fault traces cross the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site is considered low. Therefore, the proposed project would not result in any significant impacts in relation to a rupture of a known earthquake fault as delineated on the most recent Alquist Priolo Earthquake Fault Map.

The City, as well as most of the greater San Francisco Bay area, is in a region of high seismic activity. According to the General Plan EIR, all of Salinas is in Seismic Risk Zone IV, the highest potential risk category due to the frequency and magnitude of earthquake activity nationwide. Ground shaking originating from earthquakes along active faults in the region is expected to induce lower horizontal accelerations due to smaller anticipated earthquakes and/or greater distances to other faults. The design and construction of the proposed infrastructure improvements would meet the applicable standards established during final engineering. Compliance with the standard conditions would ensure that project implementation would result in a less than significant impact associated with seismic activity.

Soil liquefaction is a condition where saturated, granular soils undergo a substantial loss of strength and deformation due to pore pressure increase resulting from cyclic stress application induced by earthquakes. In the process, the soil acquires mobility sufficient to permit both horizontal and vertical movements if the soil mass is not confined. Soils most susceptible to liquefaction are saturated, loose, clean, uniformly graded, and fine-grained sand deposits. If liquefaction occurs, foundations resting on or within the liquefiable layer may undergo settlements. This would result in reduction of foundation stiffness and capacities. According to the Monterey County Geologic Hazards map, the project site is within a high liquefaction susceptibility area and is within a zone mapped as moderate liquefaction potential by the United States Geological Survey (USGS). The geotechnical study prepared for the project concluded that layers of potentially liquefiable soils were not present in the borings, however soil conditions vary and liquefaction may occur. The proposed project would be required to be in conformance with the California Building Code and other applicable standards. Conformance with standard engineering practices and design criteria would reduce the effects of ground failure to a less than significant level.

Because the site is relatively flat lying, the potential for landslides and seismically induced slope failures at or near the project site is low. Additionally, the Geologic Hazards Map for Monterey County indicates that the project site is within a low landslide susceptibility. Therefore, project implementation would

result in less than significant impacts associated with the exposure of people or structures to potential substantial adverse effects involving landslides and no mitigation is required.

Threshold (b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The project site is currently developed with roadways and there is existing infrastructure surrounding the area. The project does not include roadway expansion or widening. A majority of the proposed improvements would rehabilitate existing trails and improve pedestrian safety by providing sidewalk and trail lighting.

Grading would be required associated with construction of sidewalk and the boardwalk segment of the pedestrian walkway, as well as the installation of light standards along East Laurel Drive and walkway lighting along the trails. Grading and earthwork activities during construction would expose soils to potential short-term erosion by wind and water. Because the project would disturb more than one acre, the project would be required to comply with erosion and siltation control measures including the City's National Pollutant Discharge Elimination System (NPDES), Stormwater Development Standards, and Standard Specifications, Design Standards, and Standard Plan requirements, which include measures to reduce erosion during construction and post-construction operations.

The Stormwater Pollution Prevention Plan (SWPPP) required pursuant to the NPDES permit would identify Best Management Practices (BMPs) to prevent soil erosion during construction. The Stormwater Development Standards identify a range of measures that would be incorporated into the design of projects to prevent erosion within downstream water bodies. The Standard Specifications, Design Standards, and Standard Plans require implementation of a range of measures during construction to prevent erosion of exposed soil surfaces and materials. These requirements would ensure that potential project impacts are less than significant.

Threshold (c) Would the project 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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As previously noted, the project site is within a high liquefaction susceptibility area. Because the potential for liquefaction is high, and because the site is relatively flat and due to the presence of creek channels within or near the site, the potential for lateral spreading is considered high. Lateral spreading is a potential hazard commonly associated with liquefaction where extensional ground cracking and settlement occur as a response to lateral migration of subsurface liquefiable material. These phenomena typically occur adjacent to free faces such as slopes and creek channels. The proposed project would be required to be in conformance with the latest version of the California Building Code and other applicable standards. Conformance with standard engineering practices and design criteria would reduce the effects of ground failure to a less than significant level.

Threshold (d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?

Less Than Significant Impact With Mitigation. Expansive soils can change in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon can include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can exhibit wide cracks in the dry

season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Moderately to very highly expansive soils were encountered on the site. To address potential impacts associated with expansive soils, implementation of Mitigation Measure GEO-1 would be required, which recommends adherence to all construction and project design features from the geotechnical study. Implementation of Mitigation Measure GEO-1 would reduce impacts to a less than significant level.

Threshold (e) Would the project 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 of septic tanks and would connect to the existing sanitary sewer system for wastewater disposal. Therefore, no impact would occur and no mitigation is required.

Threshold (f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation. Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These resources are valued for the information they yield about the history of the earth and its past ecological settings. The potential for fossil occurrence depends on the rock type exposed at the surface in a given area. Areas of exposed brown to dark grayish brown, sandy loam to loam was observed during the archaeological pedestrian survey. Typically, paleontological resources are found within alluvium deposits. Although not anticipated, subsurface construction activities associated with the project, such as grading and trenching could result in a significant impact to paleontological resources, if encountered. Accordingly, implementation of Mitigation Measure GEO-2 is recommended to reduce potential impacts to paleontological resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with paleontological resources would be less than significant.

Mitigation Program

Standard Conditions and Requirements

SC GEO-1: Prior to issuance of a building permit, all construction shall meet the seismic building standards required in the most recent, adopted edition of the California Building Code.

SC GEO-2: Prior to issuance of a building permit, a grading permit shall be obtained, subject to review and approval by the City of Salinas City Engineer pursuant to the most recent, adopted edition of the California Building Code and the City of Salinas Grading Standards.

Mitigation Measures

MM GEO-1: Prior to the issuance of grading permits, the City shall review all project plans for grading, foundation, structural, infrastructure, and all other relevant construction permits to ensure compliance with the applicable recommendations from the Geotechnical Investigation and other applicable Municipal Code requirements.

MM GEO-2: A professional vertebrate paleontologist shall be present during any excavations that exceed 10 feet depth to check for the inadvertent exposure of fossils or other resources of paleontological value. In the event that fossils or fossil-bearing deposits are discovered during construction activities when a paleontologist is not present, excavations within a

100-foot radius of the find shall be temporarily halted or diverted. The paleontologist shall document any discoveries as needed in accordance with Society of Vertebrate Paleontology standards and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the City of Salinas determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery.

4.7 Greenhouse Gas Emissions

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	Appendix A, 10
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	Appendix A, 10

Background

The "greenhouse effect" is the natural process that retains heat in the troposphere, the bottom layer of the atmosphere. Greenhouse gases (GHGs) are the components of the atmosphere responsible for the greenhouse effect. The amount of heat that is retained is proportional to the concentration of GHGs in the atmosphere. As more GHGs are released into the atmosphere, GHG concentrations increase, and the atmosphere retains more heat increasing the effects of climate change. Six gases were identified by the Kyoto Protocol for emission reduction targets: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). When accounting for GHGs, all types of GHG emissions are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or million metric tons (MMT).

Greenhouse gases, primarily CO_2, CH_4, and N_2O, are directly emitted as a result of stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Included in GHG quantification is electric power which is used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills (CARB, 2008).

Regulations and Significance Criteria

California has passed several bills, and California Governors have signed Executive Orders (EOs) regarding GHGs. GHG statutes and Executive Orders include SB 97, SB 1368, EO S-03-05, EO S-20-06, and EO S-01-07. In 2006, the State adopted the landmark California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). Major components of AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.

- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25 percent to 40 percent, from business as usual by 2020.
- Must complement efforts to achieve and maintain federal and State ambient air quality standards and to reduce toxic air contaminants.

SB 97, a companion bill to AB 32, directed the California Natural Resources Agency (Resources Agency) to certify and adopt guidelines for the mitigation of GHG or the effects of GHG emissions. SB 97 was the State Legislature's directive to the Resources Agency to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis. In June 2008, the State of California Office of Planning and Research (OPR) issued a Technical Advisory on CEQA and Climate Change that provided an outline of the elements needed for a CEQA GHG analysis. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. Effective September 8, 2016, SB 32 requires the State to reduce GHG emissions to 40 percent below 1990 levels by 2030 and AB 197 created a legislative committee to oversee regulators.

Due to the nature of global climate change, it is not anticipated that any single project would have a substantial effect on global climate change. GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project's GHG emissions would have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the project's GHG emissions (14 CRC § 15064.4(a)).

The City has not adopted significance thresholds. According to a MBARD staff report to the District Board of Directors, MBARD is considering adoption of a threshold of 2,000 metric tons of equivalent CO_2 emissions (MT of CO_2e/year) for land use projects or compliance with an adopted GHG Reduction Plan/Climate Action Plan.[4] Although MBARD has adopted a GHG threshold for stationary source projects that rely on operational processes and equipment that are subject to MBARD permitting requirements, land use projects do not have a formally adopted policy recommending any specific threshold. Since MBARD has not adopted thresholds, MBARD encourages lead agencies to consider a variety of metrics for evaluating GHG missions and related mitigation measures as they best apply to the specific project (MBARD, 2014). Other air districts in the State have adopted a threshold of 1,100 MT CO_2e per year for land-use projects, including the Bay Area Air Quality Management District, Sacramento Metropolitan Air Quality Management District, and San Luis Obispo County Air Pollution Control District (Association of Environmental Professionals, October 2016).

[4] Carbon Dioxide Equivalent (CO_2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Discussion

Threshold (a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Construction GHG emissions were estimated using CalEEMod. For the purpose of this environmental analysis, project construction is expected to occur over an approximately six-month period. Construction activities would include demolition, site preparation, grading, paving, and coating for the restriped drive lanes on East Laurel Drive.

Although neither the City of Salinas nor the MBARD has adopted GHG emission significance thresholds, the project's estimated GHG emissions about (153.75 MT/ CO_2e) are well below the significance threshold of 1,100 MT CO_2e per year used in neighboring air districts and the 2,000 MT of CO_2e/year threshold that had been under consideration by the MBARD. Further, annual construction would total 5.3 $MTCO_2$e per year when amortized over 30 years. The proposed project's GHG emissions would be below the 2,000 $MTCO_2$e/year threshold currently being considered by MBARD, therefore impacts would be less than significant.

During project operations, additional street light standards and lighting for pedestrian and trail facilities would be provided. As proposed, the project would install approximately 86 lights including street and pedestrian lighting which would generate approximately 7.96 $MTCO_2$e/year (see Appendix A). The operational emissions associated with the proposed project would be below the 2,000 $MTCO_2$e/year threshold currently being considered by MBARD. Therefore, impacts would be less than significant. Further, the proposed project would potentially reduce GHG emissions by facilitating alternative transportation. Operational GHG emissions would be less than significant.

Threshold (b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. In the absence of a regional or Citywide plan for reducing of GHGs, AB 32 was used in this analysis as the basis for the determining the level of reductions in GHG emissions that would apply to the project. As additional information becomes available on GHG emissions reduction planning, the City may use such information or plans as a basis for evaluating GHG emissions impacts. AB 32 mandates the State to reduce GHG emissions to 1990 levels by 2020 and SB 32 requires a 40 percent reduction below 1990 levels by 2030. To achieve this goal, GHG emissions statewide must be reduced by approximately 30 percent by 2020.

The proposed project would comply with the City's General Plan policies to reduce GHG emissions, such as Policy COS-6.4 which aims to support alternative modes of transportation such as walking, biking, and public transit, and develop bike- and pedestrian-friendly neighborhoods to reduce emissions associated with automobile use. In addition, the proposed project would comply with all MBARD applicable rules and regulations during construction of the operational phase and would not interfere with the State's goals of reducing GHG emission to 1990 levels by 2020 as stated in AB 32; a 40 percent reduction below 1990 levels by 2030 as noted in SB 32; and, an 80 percent reduction in GHG emissions below 1990 levels by 2050 as stated in EO S-3-05. Therefore, the proposed project would have a less than significant impact on GHG emissions.

Mitigation Program

Standard Conditions and Requirements

No standard conditions or requirements are applicable to the project.

Mitigation Measures

No mitigation is required.

4.8 Hazards and Hazardous Materials

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	Appendix E, 6
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?	☐	☒	☐	☐	Appendix E, 6
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	Appendix E, 6
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?	☐	☐	☐	☒	Appendix E, 6
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐	Appendix E, 10
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	Appendix E, 10, 18
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒	Appendix E, 4

Setting

A Hazardous Materials Constraints Evaluation was prepared by Kimley-Horn (2018) for the proposed project. To supplement the 2018 Hazardous Materials Constraints Evaluation, Kimley-Horn conducted a regulatory database search in of the Department of Toxic Substances Control (DTSC) Envirostor website (http://www.envirostor.dtsc.ca.gov/public/) and the State Water Resources Control Board's geotracker website (http://geotracker.waterboards.ca.gov/). The June 2019 database search was performed to identify potential new hazardous material-regulated facilities on or near the project site. The memo is included in this Initial Study as Appendix E and the findings are summarized herein.

Impact Discussion

Threshold (a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact.

Short-Term Construction Impacts

During construction, hazardous and potentially hazardous materials typically associated with construction activities would be routinely transported and used on the project site. These hazardous materials could include gasoline, diesel fuel, lubricants, and other products used to operate and maintain construction equipment. The transport, use, and handling of these materials would be a temporary activity coinciding with project construction. Although such materials may be stored on the project site, any transport, use, and handling of these materials is expected to be limited to quantities and concentrations required to operate and maintain equipment. Removal and disposal of any hazardous materials from the project site during construction would be conducted by a permitted and licensed service provider.

Any handling, transport, use, or disposal would comply with all applicable federal, State, and local agencies and regulations, including the California Environmental Protection Agency (CalEPA), the California Department of Toxic Substances Control (DTSC), the California Department of Transportation (Caltrans), the California Occupational Safety and Health Administration, the Resource Conservation and Recovery Act, and the County of Monterey Health Department Hazardous Materials Management Services.

Long-Term Operational Impacts

Hazardous and potentially hazardous materials may be transported by vehicles traveling on project roadways. However, this transport, while occurring on the project site, is not a part of the proposed project. Therefore, long-term operational impacts associated with the transport, use, and disposal of hazardous materials would be less than significant.

Threshold (b) Would the project 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 With Mitigation. An EDR environmental database search was performed to evaluate potential hazardous conditions on or near the project site. Database searches were performed on a radius from the center of the alignment of East Laurel Drive and Constitution Boulevard for the length of the proposed project.

The EDR report identified 60 records within the one-mile prescribed radii. The EDR report did not show the overhead utility lines along East Laurel Drive and did not indicate a power transmission line that crosses East Laurel Drive approximately 600 feet east of Ranch View Lane. No underground pipelines or buried utility lines were identified.

There are 20 records pertaining to 11 sites adjacent to the project site. These sites were evaluated for their potential to affect the construction and operation of the proposed project. One site was found to represent a Recognized Environmental Condition (REC) due to a spill, thus creating the potential for contamination of the project site from a past release. The site is described in more detail below.

705 North Sanborn Road Shell Gas Station. The site has a record of a leaking underground gasoline storage tank. A leak was reported in 1998 and remediation using exaction was begun in 2002 and the site was monitored through 2018. The Water Board closed the case as of July 18, 2018. The site is subject to Post-Closure Site Management Requirements in which the Water Board must be notified of change in property ownership and change in land use, prior to development and prior to subsurface work. Furthermore, excavation of contaminated soils associated with the former gas station may not occur without Water Board review and approval. The project site is adjacent to the gas station and is approximately one foot lower in elevation. In this location, project construction is limited to sidewalk improvements and substantial excavation would not be needed. However, the potential existing that contaminated soil may be uncovered and disturbed during construction. Due to the proximity to the proposed project and the status of clean up, the site is considered a REC and the risk is moderate. Implementation of Mitigation Measure HAZ-1 is recommended to reduce potential impacts to a less than significant level.

Two other locations within 0.25 mile of the project site have a history of hazardous materials spills or use of hazardous materials.

920 Acosta Place - Carlin's Fire Extinguisher. The case was opened in 1988 as a leaking underground storage tank. The case was closed on December 22, 1989. This site is approximately 250 feet northeast of the project site. Due to the age of the leak and closed case status, the site does not pose a risk to the proposed project.

745 N Sanborn Road - American Bakeries Company. Records show that the site is has an underground storage tank and there is a record of a LUST listed as Open Inactive as of August 18, 2015. An Open-Inactive listing designates a site in which no regulatory oversight activities are being conducted by the Lead Agency (SWRCB, 2018). This site is approximately 525 feet northeast of the easternmost project area. Based on the listing and lack of current oversight the risk to the proposed project is considered low. Soil testing and development of a mitigation plan would reduce all potential risks from this site.

Other sites are either sufficiently distanced from the project site or the violations are such that the risk to the proposed project does not exist or is remote. These sites are mostly associated with auto repair and tire services or gasoline fueling stations. None of these sites are listed with any violations.

Threshold (c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The nearest school is Sanchez Elementary School, located at 901 North Sanborn Road, approximately 0.20 mile northeast of East Laurel Drive at North Sanborn Road. As previously discussed, the proposed project is not associated with the transport or use of hazardous materials. However, hazardous and potentially hazardous materials may be transported by vehicles traveling on the roadways. The transport of hazardous materials, while occurring on the project site, is not a part of the proposed project. Furthermore, any future school developed within the surrounding area would be subject to the oversight of the CalEPA and DTSC, as required by State law. New school sites are required to be free of contamination or, if the properties were previously contaminated, they must be cleaned up under DTSC's oversight. Therefore, impacts are less than significant.

Threshold (d) Would the project 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 create a significant hazard to the public or the environment?

No Impact. Government Code Section 65962.5 refers to the Hazardous Waste and Substances Site List, commonly known as the Cortese List, maintained by the California Department of Toxic Substances Control. The Cortese list contains hazardous waste and substance sites including public drinking water wells with detectable levels of contamination, sites with known underground storage tanks having a reportable release, solid waste disposal facilities from which there is a known migration, hazardous substance sites selected for remedial action, historic Cortese sites, and sites with known toxic material identified through the abandoned site assessment program. According to the DTSC Envirostor Database, the proposed project site is not listed on the Cortese List. Therefore, no impact would occur.

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

Less Than Significant Impact. The project site is approximately two miles northwest of the Salinas Municipal Airport. The project is also partially within the Airport Area of Influence at the Sanborn Road intersection with East Laurel Drive and at St. Edwards Drive, covering approximately 0.25 mile of the site. Although the proposed project is located within the AAI, it is not within a building restriction area or other zone defined by an imaginary surface. The corner of North Sanborn Road and East Laurel Drive is approximately 0.7 mile northeast of the closest airport runway protection zone. The proposed project consists of pedestrian and lighting improvements and would not include the construction of any buildings. The proposed project would not violate any height restrictions associated with the AAI or other imaginary surface restriction. Although the proposed project may increase use of sidewalks within the AAI, the potential for health and safety impacts from any associated airport operation to these users is considered remote and would not be any different from the existing conditions. Therefore, impacts are less than significant. There are no private airstrips in the project vicinity. Therefore, no impact associated with private airstrip hazards would occur.

Threshold (f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Monterey County General Plan Updates identifies Highway-101 and State Route 183 as pre-designated emergency evacuation routes. The proposed project includes pedestrian facility improvements and would not impact evacuation routes. During construction, at

minimum of one through travel lane in each direction on East Laurel Drive and Constitution Boulevard would be operational. No roadways would be completely closed during construction. Therefore, impacts to an emergency response plan would be less than significant.

Threshold (g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. According to the CAL FIRE Hazard Severity Zone Map for the County of Monterey, the project site is not within a State Responsibility Area. The project site is within a local responsible area and not in a Very High Fire Hazard Severity Zone (VHFHSZ) zone. Furthermore, the proposed project does not include construction of new structures. The project would not expose people or structures to a risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. No impact would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

MM HAZ-1: Prior to ground disturbing activities for the sidewalk improvements within the southeasternmost portion of project area, the City of Salinas shall test the soils within the area of disturbance and a mitigation plan be developed if needed. If construction would occur to a depth that encounters native soils, soil sampling shall be conducted to determine if hazardous materials are in the area to be excavated. If, during construction activity, regardless of depth, discolored soils or unusual odors are encountered, work shall stop immediately and an evaluation of the soils shall be made to determine if any hazardous materials are present in the subsurface soils. If materials are located, it is recommended that a mitigation plan be developed in order to address the potential areas of concern.

4.9 Hydrology and Water Quality

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐	16
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐	10, 16
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:					
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐	10, 16
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐	10, 16
iii) 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?	☐	☐	☒	☐	10, 16
iv) Impede or redirect flood flows?	☐	☐	☒	☐	10, 16
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	10, 16

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐	16

Setting

The project site is in a developed area of Salinas with existing storm water/drainage infrastructure. The proposed project would provide non-motorized access improvements through the project study area, including potential sidewalk and trail improvements. The project study area crosses Natividad Creek and Gabilan Creek.

Discussion

Threshold (a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require comprehensive water quality control plans be developed for all waters within the State of California. The project site is located within the jurisdiction of the Central Coast RWQCB.

Construction

Construction of the proposed project would involve clearing, soil stockpiling, grading, paving, utility installation, and landscaping activities, resulting in a potential for surface water runoff to carry sediment and small quantities of pollutants into the storm water runoff. As such, short-term water quality impacts have the potential to occur during construction of the proposed project in the absence of any protective or avoidance measures.

As proposed, the project improvements to East Laurel Avenue and Constitution Drive would disturb more than one acre of land surface and would, therefore, be required to obtain coverage under the NPDES storm water program, specifically, the City of Salinas NPDES Permit CA0049981. To minimize water quality impacts during construction, construction activities would be required to comply with a SWPPP consistent with the General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activity General Permit). To obtain coverage, the City, as the applicant, would be required to submit a Notice of Intent prior to construction activities and develop and implement a SWPPP and monitoring plan. The SWPPP identifies erosion-control and sediment-control BMPs that would meet or exceed measures required by the Construction Activity General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. These requirements would ensure that potential project impacts related to soil erosion, siltation, and sedimentation remain less than significant and avoid violation to any water quality standards or waste discharge requirements.

Operations

The proposed project would be required to implement a WQMP, pursuant to the requirements of the City's NPDES permit. The WQMP is a post-construction management program that ensures the on-going protection of the watershed basin by requiring structural and programmatic controls. The WQMP identifies structural controls (including a contained, onsite wastewater treatment plant) and programmatic controls to minimize, prevent, and/or otherwise appropriately treat storm water runoff flows before they are discharged from the site. Mandatory compliance with the WQMP would ensure that the proposed project does not violate any water quality standards or waste discharge requirements during long-term operation. Therefore, water quality impacts associated with long-term operation of the proposed project would be less than significant and no mitigation measures would be required.

Threshold (b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Groundwater levels within the limits of the project area are at 14 to 19 feet below the existing grades. Historic high ground water levels for the site indicate a groundwater depth of approximately ten feet below current grade at the top of the embankment according to Department of Water Resources. Groundwater levels fluctuate based on seasonal rainfall and other factors such as pumping of wells for agricultural irrigation and domestic use. The project study area is within the service districts of two water purveyors: California Water Service Company and Alco Water Company. Most of the east side of East Laurel Drive has water service provided by Alco Water Company, with the exception of the Constitution Soccer Complex, which is served by California Water Service Company. The proposed project does not include any uses which involve potable groundwater wells. The proposed project includes pedestrian improvements on East Laurel Drive and Constitution Boulevard to enhance pedestrian safety and increase connectivity, mobility, and access for transit users, bicyclists, and pedestrians. These improvements would result in the minor addition of impervious surfaces on site. Accordingly, the proposed project would not significantly impact local groundwater recharge. Impacts would be less than significant and no mitigation is required.

Threshold (c.i.) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Threshold (c.ii.) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. Proposed improvements, including continuous sidewalks, would not result in a substantial increase in impervious surfaces which would result in substantial erosion, siltation, or flooding on or off the site. The majority of the project site is currently developed as a paved road with intermittent sidewalks and trails. The proposed project would not result in a significant change to the drainage pattern of the site. The project would not involve the alteration of the course of a stream or river. Therefore, less than significant impacts would occur and mitigation is not required.

Threshold (c.iii.) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. With required adherence to a SWPPP and WQMP as discussed above under response 9(a), the proposed project would not be a substantial source of polluted runoff exceeding the capacity of existing or planned storm water drainage systems or add substantial sources of polluted runoff. Therefore, less than significant impacts would occur and mitigation is not required.

Threshold (c.iv.) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

Less Than Significant Impact. The project is proposing to improve pedestrian safety and user connectivity on East Laurel Drive and Constitution Boulevard by adding sidewalks, increasing lighting, and a new boardwalk. Although Natividad Creek and Gabilan Creek traverse below East Laurel Drive, construction and operation of the boardwalk would not adversely impact the course of these creeks. Compliance to SC HYDRO-1 and SC HYDRO-2 would result in a less than significant impact.

Threshold (d) In flood hazard, tsunami, or seiche zones, would the project risk the release of pollutants due to project inundation?

No Impact. Flood hazards are generally considered from three sources: (1) seismically-induced waves (tsunami or seiche); (2) dam failure; and, (3) long-cycle storm events. The site is approximately 10.4 miles from the Monterey Bay at an elevation of approximately 53 feet above mean sea level. Based upon the site's distance from Monterey Bay and its elevation, the potential for a seismically-induced wave to impact the site is negligible. Furthermore, the proposed project does not propose any land uses that would risk release of pollutants. Therefore, no impacts would occur and no mitigation is required.

Threshold (e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. As discussed under threshold a), the proposed project would comply with water quality standards and provisions. In 2014, the California Sustainable Groundwater Management Act (SGMA) was passed, which provides authority for agencies to develop and implement groundwater sustainability plans (GSP) or alternative plans that demonstrate the water basins are being managed sustainably.[5] The proposed project does not include any uses which involve potable groundwater wells. The proposed project includes pedestrian improvements on East Laurel Drive and Constitution Boulevard to enhance pedestrian safety and increase connectivity, mobility, and access for transit users, bicyclists, and pedestrians. These improvements would result in the minor addition of impervious surfaces on site. The proposed project would not significantly impact local groundwater recharge.

[5] State Water Resources Control Board. Sustainable Groundwater Management Act (SGMA). https://www.waterboards.ca.gov/water_issues/programs/gmp/sgma.html. Accessed January 16, 2019.

Mitigation Program

Standard Conditions and Requirements

SC HYDRO-1: All applicable NPDES/NOI/SWPPP permits will be required and shall be obtained from the State Water Resources Control Board prior to any construction activities. Development shall comply with NPDES requirements in effect when construction begins. A Storm Water Pollution Prevention Plan (SWPPP) will be required if the total project disturbance is one or more acres and shall include/identify erosion control measures and Best Management Practices (BMPs) proposed for this site. Where project disturbance is less than one acre, an Erosion and Sediment Control Plan is required. BMPs shall include but are not limited to: installing straw wattles/fiber rolls around the construction site(s); placing gravel bags at all inlets potentially impacted by construction; installing a rock over filter fabric construction access to/from the site (as applicable); providing a concrete washout facility on-site; and sweeping adjacent public streets each day or as required by the City Engineer.

SC HYDRO-2: Prior to issuance of the Notice to Proceed, the contractor shall prepare a Construction Site Waste Management Plan that addresses spill prevention, control, and clean-up of materials such as petroleum products, fertilizers, solvents, pesticides, paints, and cleaners, subject to review and approval by the City of Salinas Public Works Department.

Mitigation Measures

No mitigation is required.

4.10 Land Use and Planning

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Physically divide an established community?	☐	☐	☐	☒	12, 10, 14
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	10, 12, 13, 14

Setting

Land uses bordering the project site include medical office uses, agricultural fields, institutional facilities, retail uses, and residential neighborhoods. The proposed project includes improvements on a major arterial and therefore does not have a General Plan land use designation. The City of Salinas Land Use Map designations for surrounding properties includes: Residential Low Density (1-8 units/net acre; average 6.5 units/gross acres), Residential Medium Density (8-15 units/net acre; average 11.75 units/gross acres), Residential High Density (15-24 units/net acre; average 16.75 units/gross acres), Retail, Open Space, Park, Public/Semipublic.

The proposed project includes improvements on a major arterial and therefore does not have a zoning designation. The City of Salinas Official Zoning Map designations for surrounding properties includes: Residential Low Density (R-L-5.5), Residential Medium Density (R-M-3.6), Residential Medium Density (R-M-2.9), Residential High Density (R-H-2.1), Commercial Retail (CR), Parks (P), Open Space (OS), Agriculture (A), and Public/Semipublic (PS).

Discussion

Threshold (a) Would the project physically divide an established community?

No Impact. Examples of projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad lines. The project would involve only minimal new development to an existing major arterial, as it would provide new pedestrian facilities, curb and gutter improvements, and lighting on East Laurel Drive, while Constitution Boulevard improvements would only include pedestrian facilities. The proposed project does not include construction or expansion of new roadways. Given its limited nature and scope, the project does not have the potential to disrupt or physically divide the arrangement of the community. No residential uses near the site would be displaced. Therefore, no impacts would occur and no mitigation is required.

Threshold (b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed project would enhance pedestrian mobility throughout the project area. The project's goals are consistent with General Plan Policy COS-6.4 to support alternative modes of transportation such as walking, biking, and public transit, and develop bike- and pedestrian-friendly neighborhoods to reduce emissions associated with automobile use. In addition, the proposed project is a desired mobility improvement project, as identified as project #9924 of the City's adopted Capital Improvement Program: FY 2014-2019. Implementation of the project would not impact a plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the proposed project would have a less than significant impact and no mitigation is required.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.11 Mineral Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
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?	☐	☐	☐	☒	2, 10
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?	☐	☐	☐	☒	2, 10

Setting

According to the General Plan and the California Department of Conservation Mineral Lands Classification, there are no mineral resources area in the City of Salinas.

Discussion

Threshold (a) Would the project 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?

Threshold (b) Would the project 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. According to the General Plan and the California Department of Conservation Mineral Lands Classification, there are no mineral resources area in the City of Salinas. Implementation of the proposed project would not use mineral deposits or involve mining activities. Furthermore, the project site is not in an area identified as a locally important mineral resource recovery site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource. No impact would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.12 Noise

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	21
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	22
c. For a project located within the vicinity of a private airstrip or airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	9

Background

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. For example, the equivalent continuous sound level (L_{eq}) is the average acoustic energy

content of noise for a stated period of time; thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. The Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 PM to 7:00 AM and an additional 5 dBA weighting during the hours of 7:00 PM to 10:00 PM to account for noise sensitivity in the evening and nighttime.

Setting

East Laurel Drive and Constitution Boulevard are bordered by uses including multi-family and single-family residences, general retail, schools, agricultural uses, medical facilities, and County facilities. The existing noise environment is influenced primarily by residential, retail, and institutional uses near the project site, as well as vehicular noise emanating from traffic on roadways such as East Laurel Drive and Constitution Boulevard. The primary sources of stationary noise in the project vicinity are from typical residential, retail, and institutional uses (e.g., conversation, heating, ventilation, and air conditioning [HVAC] equipment, parking lots, etc.). Sensitive receptors in the project vicinity are primarily the residential, medical facilities, and educational uses. The nearest residential uses are approximately 35 feet east of the project site; medical facilities are approximately 380 feet east of the project site; and Sanchez Elementary School is approximately 960 feet east of the site.

The General Plan contains policies and programs to achieve and maintain noise levels compatible with various types of land uses. The policies and programs emphasize the need to control noise through land use regulation, as well as enforcement of other City ordinances. Three major issues are addressed in the General Plan Noise Element: (1) avoiding the negative impacts of noise through land use planning and noise reduction measures; (2) minimizing the impact of transportation-related noise; and (3) minimizing the impact of non-transportation-related noise. The following General Plan Policy and Implementation Program are applicable to the proposed project:

Policy N-3.1. Enforce the City of Salinas Noise Ordinance to ensure stationary noise sources and noise emanating from construction activities, private developments/ residences and special events are minimized.

Implementation Program N-3 - Minimize Construction Noise. Require all construction activity to comply with the limits (maximum noise levels, hours and days of allowed activity) established in the City noise regulations (Title 24 California Code of Regulations, Zoning Ordinance and Chapter 21A of the Municipal Code).

Municipal Code Section 37-50.180 identifies noise performance standards. Noise compatibility standards for various land uses are specified as are short-duration cumulative noise level standards. Requirements for noise studies are specified as are options for noise abatement and mitigation. The City's Noise Ordinance (Municipal Code Chapter 21A) defines various classes of noise (A through D) and defines noise regulations that pertain to each. Noise from project construction is considered Class B noise. The Noise Ordinance prohibits Class B (construction) noise between 9:00 PM and 7:00 AM.

Discussion

Threshold (a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact with Mitigation.

Construction Noise. Construction noise represents a short-term impact on ambient noise levels. The project would involve only minimal construction activities which would be temporary and have a short duration resulting in periodic increases in the ambient noise environment. The construction activities would require the use of bulldozers, backhoes, and pile drivers (pile drivers would be required for boardwalk anchors). Groundborne noise and other types of construction-related noise impacts typically occur during the initial earthwork phases. As noted above, the City prohibits construction noise between 9:00 PM and 7:00 AM. The permitted hours of construction recognize that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Adherence to the City's allowable hours of construction would ensure construction noise would be less than significant.

Typical noise levels generated by construction equipment are shown in Table 4.12-1, *Maximum Noise Levels Generated by Construction Equipment.* Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). It should be noted that as project construction would not use large heavy-duty pieces of construction equipment such as a graders or scrapers, noise levels would be less intense than typical construction projects.

Table 4.12-1: Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor	Lmax at 50 feet (dBA)
Concrete Saw	20	90
Concrete Mixer Truck	40	79
Concrete Saw	20	90
Backhoe	40	78
Dozer	40	82
Truck	40	88
Paver	50	77
Roller	20	80
Tractor	40	84
Impact Pile Driver	20	101
Pile Drive (Sonic)	20	96
Note: Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation. Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006 and Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.		

Segments of East Laurel Drive are bordered by residential uses; with the nearest approximately 35 feet east of the project site. However, pile driving for the boardwalk anchors would be approximately 150 feet or more from the closest sensitive receptors. Construction activities would be relatively minor and would not produce excessive levels of noise (i.e., replacing construction machinery to be equipped with properly operating noise attenuation devices, designating haul routes away from sensitive receptors, locating staging areas away from receptors) would be required. Project construction would adhere to the hour limitations identified in the City's Municipal Code Noise Ordinance and Standard Condition N-1. Compliance with the City's Noise Ordinance would ensure that construction noise does not disturb residents during the times they are most likely to be home or during hours when ambient noise levels are likely to be lower (i.e., at night). Implementation of Mitigation Measure NOI-1 which requires best practices, such as placing construction equipment as far as possible from sensitive receptors and using mufflers, would reduce construction noise impacts on adjacent noise-sensitive land uses to a less than significant level.

Operational Noise. The proposed project would not introduce any new uses that would result in an increase of noise levels. The improvements are proposed to enhance pedestrian and bicyclist connectivity and safety and increase nighttime visibility. The project would serve existing pedestrians and bicyclists and no uses are proposed that would directly increase vehicular trips in the study area. Additionally, the project has been designed to be a pedestrian-oriented area and does not include any stationary noise sources. Therefore, no long-term noise impacts would result with implementation of the proposed project.

Threshold (b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located near a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration levels produced by construction equipment is identified in Table 4.12-2, *Typical Vibration Levels for Construction Equipment.*

Table 4.12-2: Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 35 feet (inches/second) [1]	Approximate peak particle velocity at 150 feet (inches/second)[1]
Loaded trucks	0.076	0.046	0.005
Small bulldozer	0.003	0.002	0.000
Pile Driver (impact, typical)	0.644	0.389	0.044
Jackhammer	0.035	0.021	0.002
Vibratory compactor/roller	0.210	0.127	0.014

Notes:

1. Peak particle ground velocity measured at 25 feet per Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018. Table 7-4.
2. Calculated using the following formula:

   $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

   where:

   PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
   PPV (ref) = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018).
   D = the distance from the equipment to the receiver.

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual,* September 2018.

Groundborne vibration decreases rapidly with distance. As indicated in Table 4.12-2, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.210 inches per second peak particle velocity (PPV) at approximately 25 feet from the source of activity. The closest sensitive receptors in the project area are approximately 35 feet away from active construction zones and approximately 150 feet or more from boardwalk anchor pile driving. Vibration from construction activities experienced at the nearest sensitive residential uses would range between 0.002 and 0.127 inches per second PPV for non-pile driving equipment, which is below the 0.20 inch-per-second PPV significance threshold. Additionally, at approximately 150 feet, vibration levels associated with pile driving would be 0.044 inches per second PPV, which is also below the 0.20 inch-per-second PPV significance threshold. Therefore, a less than significant impact would occur.

Use of the sidewalks and trails would not generate groundborne vibration that could be felt at surrounding uses. The proposed project would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses.

Threshold (c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is approximately two miles northwest of Salinas Municipal Airport within the Salinas Municipal Airport Land Plan. The Salinas Municipal Airport is located at the southeastern boundary of the City limits. The project is outside the 65 dBA CNEL contour for aircraft activities associated with Salinas Municipal Airport. Therefore, the project would not be exposed to aircraft overflight noise that

exceeds the City's exterior noise exposure thresholds. There are no private airstrips within the project site vicinity. No impacts would occur.

Mitigation Program

Standard Conditions and Requirements

SC NOI-1: All noise-generating activities at construction sites should be limited to the hours between 7:00 AM and 9:00 PM, Monday through Friday. Construction shall be prohibited during all other time periods and all day on Saturdays, Sundays, and legal holidays unless prior written approval is granted by the City of Salinas City Engineer.

Mitigation Measures

MM NOI-1: Prior to the initiation of construction, the City of Salinas City Engineer shall ensure that all project plans and specifications stipulate that:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers;
- Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible;
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers;
- During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors; and
- Operate earthmoving equipment on the construction site, as far away from vibration sensitive sites as possible.

4.13 Population and Housing

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	3, 10
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	3, 10

Setting

The City of Salinas covers approximately 23.7 square miles of northern Monterey County. The California Department of Finance estimates that Salinas' existing population as of January 2019 totals 162,797 persons, and the City's existing housing stock totals 43,222 units. Between 2010 and 2019, the City's population increased by 12,356 persons and housing units increased by 571 units. The City's General Plan 2015-2023 Housing Element assesses population trends and housing needs. By 2035, the City's population is projected to increase to 172,499 persons with a need for 2,229 additional housing units by 2023.

Discussion

Threshold (a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Threshold (b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project proposes pedestrian improvements on the north side of East Laurel Drive beginning at Constitution Boulevard to North Sanborn Road. On Constitution Boulevard, improvements are proposed on the south side from the intersection of East Laurel Drive at Constitution Boulevard to the north, ending approximately 375 feet south of Manchester Circle. The proposed project is not a land use generating population growth. The project site does not include any existing housing and no housing would be demolished to accommodate the proposed project. Temporary employment associated with the project would be limited to construction crews and no long-term, permanent jobs would be created. The project does not necessitate construction of replacement housing. Therefore, no impacts would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.14 Public Services

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. 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 public services:					
i. Fire protection?	☐	☐	☒	☐	11
ii. Police protection?	☐	☐	☒	☐	10
iii. Schools?	☐	☐	☐	☒	10
iv. Other public facilities?	☐	☐	☐	☒	10

Setting

The City of Salinas Police Department provides full police protection services to the City. The Police Department from its headquarters at 222 Lincoln Avenue, approximately 1.9 miles southwest of East Laurel Drive. The City of Salinas Fire Department provides fire protection services to the City from its six fire stations. The nearest station to the southernmost project area is Fire Station 4, located at 308 Williams Road, which is approximately 0.65 mile southeast of East Laurel Drive and North Sanborn Road. The nearest station to the northernmost project area is Fire Station 2, located at 10 West Laurel Drive, which is approximately 1.20 miles northeast of East Laurel Drive and Constitution Boulevard. The Salinas General Plan identifies a service standard of six-minute response for fire protection from receipt of a 911 call. According to the Salinas Fire Department 2007 Annual Report, the Fire Department' average response time was 4 minutes and 16 seconds.

The project area is within the Salinas City Elementary School District and Salinas Union High School District. The nearest school is Sanchez Elementary School, located at 901 North Sanborn Road, approximately 0.20 mile northeast of East Laurel Drive and North Sanborn Road.

Discussion

Threshold (a.i, a.ii) **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 fire and police protection?**

Less Than Significant Impact. The project would not hinder the Salinas Fire Department or Police Department from maintaining acceptable service ratios, response times, or other performance objectives given the nature of the project. As identified in the Project Description, during construction, at minimum of one through travel lane in each direction on East Laurel Drive and Constitution Boulevard would be operational. No roadways would be completely closed during construction. Therefore, no significant impacts would occur during construction of the project. Implementation of the proposed project would not increase population. Therefore, service ratios would not be affected and impacts to fire and police protection services would be less than significant.

Threshold (a.iii, a.iv) **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 schools or other public facilities?**

No Impact. The project does not involve residential development or new employment-generating land uses and would therefore not generate an increase the City's population. No major additional public services would be required to serve the proposed project. Therefore, no impacts to schools and other public facilities would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.15 Recreation

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
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?	☐	☐	☐	☒	10
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?	☐	☐	☐	☒	10

Setting

The nearest park to the project site is Vietnam Veterans Memorial Park, which borders northbound East Laurel Drive and westbound Veterans Way. Other parks and recreational facilities near the project site include: East Laurel Pocket Park which is approximately 940 feet south of East Laurel Drive and North Sanborn Road, Constitution Soccer Complex which borders the northbound lanes of East Laurel Drive and eastbound lanes of Constitution Boulevard, and First Tee of Monterey County which is a 9-hole golf course located approximately 3,000 feet east of the project site.

Discussion

Threshold (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?

No Impact. The project's primary purpose is to enhance pedestrian safety and increase connectivity, mobility, and access for transit users and pedestrians. Additional improvements are proposed to beautify sidewalk aesthetics with increased lighting and a new boardwalk to promote an urban sustainable and environmentally friendly design. Therefore, the project would not increase the use of existing neighborhood or regional parks or create a demand for construction of new or expansion of existing recreational facilities. No impacts would occur.

Threshold (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?

No Impact. The project would not result in the need for construction or expansion of recreational facilities. The proposed project does not increase the use of existing neighborhood or regional parks or create additional construction of new facilities. No impacts would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.16 Transportation

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Conflict with an program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐	10
b. Would the project conflict or be inconsistent with CEQA guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐	10
c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	15
d. Result in inadequate emergency access?	☐	☐	☒	☐	18
e. Result in inadequate parking capacity	☐	☐	☐	☒	10

Setting

The project site is in the City's northern portion, north of Highway 101. East Laurel Drive is classified as a Major Arterial within the City's General Plan Circulation Element. East Laurel Drive traverses a range of land uses including residential, agricultural, recreation, commercial, and medical. Constitution Boulevard is classified as a Minor Arterial within the City's General Plan Circulation Element. The proposed project extends along the east side of Constitution Boulevard from East Laurel Drive to approximately 375 feet south of Manchester Circle.

Discussion

Threshold (a) Would the project conflict with an program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. Implementation of the proposed project would result in the construction of new and improved pedestrian facilities. The Salinas General Plan Policy C-1.2 strives to maintain Level of Service (LOS) D or better for all intersections and roadways. Short-term construction trips would include the transfer of construction equipment, construction worker trips, and hauling trips for construction materials; however, impacts in this regard would be temporary in nature and would cease upon project completion. Long-term operation of the project would not generate vehicle trips that would adversely affect the circulation system; no impacts would occur. No project components would require removal of vehicular lanes such that capacity would be reduced, or that would affect transit service, and all lane

widths would be required to meet the requisite engineering standards such that safe conditions would be maintained for all users. Therefore, impacts would be less than significant.

Threshold (b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact. Implementation of the proposed project would enhance pedestrian safety, increase connectivity and mobility, and provide access for transit users and pedestrians. The project would further promote alternative modes of transportation and reduce vehicle trips. The project is not a land use associated with the generation of traffic and no project components would require removal of vehicle lanes such that capacity would be affected. Therefore, impacts are less than significant.

Threshold (c) Would the project 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 improvements on East Laurel Drive and Constitution Boulevard consist of pedestrian facility upgrades, curb and gutter installations, and trail rehabilitation. New pedestrian facilities would enhance pedestrian safety and mobility throughout the project site. Furthermore, the proposed lighting on the pedestrian trails would further increase safety for both pedestrians and drivers. Overall, the project would introduce safer routes of travel and reduce several roadway hazards and not include any incompatible uses. Therefore, no impact would occur.

Threshold (d) Would the project result in inadequate emergency access?

Less Than Significant Impact. The Monterey County General Plan Updates identifies Highway 101 and State Route 183 as pre-designated emergency evacuation routes. The proposed project includes pedestrian improvements and would not impact evacuation routes. During construction, a minimum of one through travel lane in each direction on East Laurel Drive and Constitution Boulevard would be operational. No roadways would be completely closed during construction. Therefore, impacts to an emergency response plan would be less than significant.

Threshold (e) Would the project result in inadequate parking facilities?

No Impact. The proposed project does not include any parking facilities or uses that would require the need for additional parking, nor would the project result in the removal of existing parking. Therefore, the project would not result in inadequate parking capacity and no impact would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.17 Tribal Cultural Resources

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) or	☐	☐	☒	☐	Appendix C
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☒	☐	Appendix C

Discussion

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

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

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

Less Than Significant Impact. Chapter 532 Statutes of 2014 (i.e., Assembly Bill [AB] 52) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources". Such resources include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource". In compliance with PRC Section 21080.3.1(b), the City has provided formal notification to California Native American tribal representatives identified by the California Native American Heritage Commission. Native American groups may have knowledge about cultural resources in the area and may have concerns about adverse effects from development on tribal cultural resources as defined in PRC Section 21074. The City has contacted the tribal representatives noted below. Correspondence to and from tribal representatives is included as Appendix G to this Initial Study. As of the release date of the Initial Study, the City has received one request for consultation from Ohlone/Costanoan-Esselen Nation.

A meeting was held on October 3, 2018 at the City of Salinas Public Works Department. In attendance were Louise Ramirez, Chair for the Ohlone/Costanoan-Esselen Nation, Eda Herrera and Jonathan Estes from the City of Salinas and its consultants. The tribal representative requested that tribal monitoring be provided in areas of native soils; to receive copies of reports; and to receive all found artifacts or enter into a Memorandum of Agreement for the repository of tribal artifacts.

Although soil disturbances are limited to 12-inch excavations, there is the potential for the project to affect previously unidentified Native American tribal cultural resources. SC CUL-1 and MM CUL-1-3 has been identified to mitigate this potential impact to archaeological resources. Compliance with the standard conditions and mitigation measures would mitigate potential impacts to tribal cultural resources to a less than significant level.

Mitigation Program

Standard Conditions and Requirements

SC-CUL 1 is applicable to the project.

Mitigation Measures

MM CUL-1-3 is applicable to the project.

4.18 Utilities and Service Systems

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Require or result in the relocation or construction of new water or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒	10
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒	10
c. Result in a determination by the wastewater treatment provider which 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?	☐	☐	☐	☒	10
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐	10
e. Comply with federal, State, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	10

Setting

Salinas is served by two private water companies: Alco Water Service and California Water Service. PG&E provides natural gas and electric services to the City. The Monterey Regional Water Pollution Control Agency provides wastewater treatment, disposal, and recycling services to northern Monterey County, including Salinas. The Salinas Valley Solid Waste Authority is responsible for the maintenance and

operation of the sanitary sewer collection system, which serves the City. Monterey Regional Waste Management District provides solid waste disposal service to the City.

Discussion

Threshold (a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The proposed project would not result in the relocation or construction of any utilities. No expansion of water or wastewater infrastructure is required. All new proposed lighting standards would connect to existing infrastructure along East Laurel Drive. Therefore, no impact would occur and no mitigation is required.

Threshold (b) Are sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The proposed project is a pedestrian and trail enhancement project and is not a land use typically associated with water generation. Therefore, project implementation would not impact existing water supplies. No impact would occur.

Threshold (c) Would the project result in a determination by the wastewater treatment provider which 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 project would not increase the existing permitted treatment capacity of the City's Industrial Waste Treatment Plant or increase the existing capacity at the regional treatment plant operated by Monterey County Regional Water Pollution Control Agency because the project is not a land use associated with generating wastewater. Existing limitations on the Industrial Waste Treatment Plant's capacity would remain unchanged and the project would not result in discharges that exceed existing Waste Discharge Requirement standards for the treatment facility. The project would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. No impact would occur.

Threshold (d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Threshold (e) Would the project comply with federal, State, and local statutes and regulations related to solid waste?

Less Than Significant Impact. The Salinas Valley Solid Waste Authority provides solid waste disposal to Monterey County (eastern half of the unincorporated county), and the cities of Gonzales, Greenfield, King City, Salinas, and Soledad. Construction of the project would generate construction debris. There is adequate capacity in County landfill facilities to accommodate construction debris associated with the project. The proposed project is not a land use that would not generate solid waste during operations. Therefore, no significant impacts would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.20 Wildfire

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	10
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire?	☐	☐	☐	☒	10
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒	10
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes?	☐	☐	☐	☒	10

Threshold (a) If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the CAL FIRE Hazard Severity Zone Map for the County of Monterey, the project site is not within a State Responsibility Area. The project site is within a local responsible area and not in a Very High Fire Hazard Severity Zone (VHFHSZ) zone. Project design and site access would adhere to the Salinas Fire Department regulations and designs. Further, project construction would not require the complete closure of any public or private streets or roadways during construction. Temporary construction activities would not impede use of the road for emergencies or access for emergency response vehicles. Therefore, the project would not result in inadequate emergency access, and no impact would occur.

Threshold (b) If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, due to slope, prevailing winds, and other factors, would the project

exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As discussed above, the project is not within an area classified as very high fire hazard severity zone. Therefore, no impacts would occur.

Threshold (c) If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. As discussed above, the project is not within an area classified as very high fire hazard severity zone. The project site is bordered by existing development and agricultural fields. The proposed project would tie into existing infrastructure that currently serves the project area. Project implementation would not result in the new construction, installation, or maintenance of new infrastructure. No impact would occur.

Threshold (d) If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project is not within an area classified as very high fire hazard severity zone**.** The project site is level without any slopes. The potential for landslides and seismically-induced slope failures at or near the project site is low. There are no known landslides near the site nor is the site in the path of any known or potential landslides. Therefore, no impacts would occur.

Mitigation Program

Standard Conditions and Requirements

No standard conditions are applicable to the project.

Mitigation Measures

No mitigation is required.

4.21 Mandatory Findings of Significance

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reference source(s)
Would the project:					
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	10
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)?	☐	☒	☐	☐	10
c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	10

Discussion

a) **Less Than Significant Impact with Mitigation.** As addressed in the Initial Study analysis, the proposed project would not result in any significant impacts to the environment that cannot be mitigated to a less than significant level through the application of uniformly applied mitigation and development policies and/or standards. The proposed project would be required to implement a range of standard and uniformly applied development policies and standards, as well as implement mitigation measures identified in the analysis herein, which would reduce impacts to a less than significant level.

b) **Less Than Significant Impact with Mitigation.** The proposed project would result in potentially significant impacts in the following areas: Biological Resources, Cultural and Tribal Resources, Geology and Soils, Hazards and Hazardous Materials, and Noise. A Mitigation Program is identified in the Initial Study for each of these environmental issue areas in order to reduce impacts to less than significant levels. Standard conditions would also be imposed upon the project.

   All other impacts of the project were determined either to have no impact or to be less than significant, without the need for mitigation. Cumulatively, the proposed project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed project, in conjunction with other future projects, would not result in any cumulatively considerable impacts.

c) **Less Than Significant Impact.** As discussed in the respective sections of this Initial Study, the proposed project would have no potentially significant impacts. A Mitigation Monitoring and Reporting Program would be implemented to address these environmental issue areas to reduce impacts to less than significant levels. Standard conditions would also be imposed upon the project. Therefore, the project would not cause substantial adverse effects on human beings directly or indirectly. Therefore, impacts related to adverse effects on human beings would be less than significant.

5 PREPARERS

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Appendix A: Air Quality and Greenhouse Gas Assessment Study

East Laurel Drive

Monterey County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.12		2.12	92,347.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2020
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 - trail approx. size

Construction Phase - Anticipated Schedule

Demolition - conservative estimation for demolition of 1 mile segment

Grading - The proposed project would disturb approximately 2.12 acres and involve approximately 375 cubic yards of cut and approximately 1,403 cubic yards of fill

Construction Off-road Equipment Mitigation - standard dust control measures

Water Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	220.00	34.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	PhaseEndDate	2/10/2020	3/13/2020
tblConstructionPhase	PhaseEndDate	12/14/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	12/28/2020	6/30/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	6/30/2020
tblConstructionPhase	PhaseStartDate	2/11/2020	3/14/2020
tblConstructionPhase	PhaseStartDate	12/15/2020	5/1/2020
tblConstructionPhase	PhaseStartDate	12/29/2020	6/1/2020
tblGrading	MaterialImported	0.00	1,028.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.3787	23.9152	16.8751	0.0334	6.7168	1.1649	7.7127	3.4109	1.0880	4.3273	0.0000	3,295.0244	3,295.0244	0.7705	0.0000	3,310.8465
Maximum	**3.3787**	**23.9152**	**16.8751**	**0.0334**	**6.7168**	**1.1649**	**7.7127**	**3.4109**	**1.0880**	**4.3273**	**0.0000**	**3,295.0244**	**3,295.0244**	**0.7705**	**0.0000**	**3,310.8465**

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					
2020	3.3787	23.9152	16.8751	0.0334	2.9537	1.1649	3.9496	1.4805	1.0880	2.3969	0.0000	3,295.0244	3,295.0244	0.7705	0.0000	3,310.8465
Maximum	**3.3787**	**23.9152**	**16.8751**	**0.0334**	**2.9537**	**1.1649**	**3.9496**	**1.4805**	**1.0880**	**2.3969**	**0.0000**	**3,295.0244**	**3,295.0244**	**0.7705**	**0.0000**	**3,310.8465**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.03**	**0.00**	**48.79**	**56.59**	**0.00**	**44.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/1/2020	3/13/2020	5	30	
4	Building Construction	Building Construction	3/14/2020	4/30/2020	5	34	
5	Paving	Paving	5/1/2020	6/30/2020	5	43	
6	Architectural Coating	Architectural Coating	6/1/2020	6/30/2020	5	22	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 15

Acres of Paving: 2.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 5,541

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	198.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	129.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	39.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2385	0.0000	2.2385	0.3390	0.0000	0.3390			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.2385**	**1.1525**	**3.3910**	**0.3390**	**1.0761**	**1.4151**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.0831	2.9226	0.5878	8.1000e-003	0.1727	0.0115	0.1842	0.0473	0.0110	0.0583		857.7046	857.7046	0.0310		858.4803

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	0.0574	0.0462	0.4995	1.1600e-003	0.1068	9.2000e-004	0.1077	0.0283	8.5000e-004	0.0292		115.0071	115.0071	4.9100e-003		115.1299
Total	**0.1406**	**2.9689**	**1.0874**	**9.2600e-003**	**0.2795**	**0.0124**	**0.2919**	**0.0756**	**0.0119**	**0.0875**		**972.7117**	**972.7117**	**0.0359**		**973.6102**

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					0.9570	0.0000	0.9570	0.1449	0.0000	0.1449			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.9570**	**1.1525**	**2.1094**	**0.1449**	**1.0761**	**1.2211**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.0831	2.9226	0.5878	8.1000e-003	0.1648	0.0115	0.1763	0.0454	0.0110	0.0564		857.7046	857.7046	0.0310		858.4803
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	0.0574	0.0462	0.4995	1.1600e-003	0.1012	9.2000e-004	0.1022	0.0270	8.5000e-004	0.0278		115.0071	115.0071	4.9100e-003		115.1299
Total	**0.1406**	**2.9689**	**1.0874**	**9.2600e-003**	**0.2661**	**0.0124**	**0.2785**	**0.0723**	**0.0119**	**0.0842**		**972.7117**	**972.7117**	**0.0359**		**973.6102**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**1.5908**	**0.7771**	**2.3678**	**0.1718**	**0.7149**	**0.8867**		**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0353	0.0285	0.3074	7.1000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

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					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149	0.0000	2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**0.6801**	**0.7771**	**1.4571**	**0.0734**	**0.7149**	**0.7883**	**0.0000**	**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0353	0.0285	0.3074	7.1000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5597	0.0000	6.5597	3.3686	0.0000	3.3686			0.0000			0.0000

Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.5597**	**0.9902**	**7.5499**	**3.3686**	**0.9110**	**4.2796**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.0361	1.2694	0.2553	3.5200e-003	0.0750	5.0000e-003	0.0800	0.0205	4.7800e-003	0.0253		372.5384	372.5384	0.0135		372.8753
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	0.0442	0.0356	0.3842	8.9000e-004	0.0822	7.1000e-004	0.0829	0.0218	6.5000e-004	0.0224		88.4670	88.4670	3.7800e-003		88.5614
Total	**0.0803**	**1.3050**	**0.6396**	**4.4100e-003**	**0.1572**	**5.7100e-003**	**0.1629**	**0.0423**	**5.4300e-003**	**0.0478**		**461.0054**	**461.0054**	**0.0173**		**461.4367**

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					2.8043	0.0000	2.8043	1.4401	0.0000	1.4401			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.8043**	**0.9902**	**3.7944**	**1.4401**	**0.9110**	**2.3510**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.0361	1.2694	0.2553	3.5200e-003	0.0716	5.0000e-003	0.0766	0.0197	4.7800e-003	0.0245		372.5384	372.5384	0.0135		372.8753
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	0.0442	0.0356	0.3842	8.9000e-004	0.0779	7.1000e-004	0.0786	0.0207	6.5000e-004	0.0214		88.4670	88.4670	3.7800e-003		88.5614
Total	**0.0803**	**1.3050**	**0.6396**	**4.4100e-003**	**0.1495**	**5.7100e-003**	**0.1552**	**0.0405**	**5.4300e-003**	**0.0459**		**461.0054**	**461.0054**	**0.0173**		**461.4367**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0655	1.8366	0.4794	4.3100e-003	0.1015	0.0100	0.1115	0.0292	9.6000e-003	0.0388		453.7160	453.7160	0.0199		454.2138
Worker	0.1722	0.1387	1.4985	3.4700e-003	0.3204	2.7700e-003	0.3232	0.0850	2.5500e-003	0.0875		345.0213	345.0213	0.0147		345.3896
Total	**0.2377**	**1.9753**	**1.9779**	**7.7800e-003**	**0.4218**	**0.0128**	**0.4347**	**0.1142**	**0.0122**	**0.1263**		**798.7374**	**798.7374**	**0.0346**		**799.6034**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0655	1.8366	0.4794	4.3100e-003	0.0971	0.0100	0.1072	0.0281	9.6000e-003	0.0377		453.7160	453.7160	0.0199		454.2138

Worker	0.1722	0.1387	1.4985	3.4700e-003	0.3037	2.7700e-003	0.3064	0.0809	2.5500e-003	0.0834		345.0213	345.0213	0.0147		345.3896
Total	**0.2377**	**1.9753**	**1.9779**	**7.7800e-003**	**0.4008**	**0.0128**	**0.4136**	**0.1090**	**0.0122**	**0.1212**		**798.7374**	**798.7374**	**0.0346**		**799.6034**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2839**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0662	0.0533	0.5764	1.3300e-003	0.1232	1.0700e-003	0.1243	0.0327	9.8000e-004	0.0337		132.7005	132.7005	5.6700e-003		132.8422
Total	**0.0662**	**0.0533**	**0.5764**	**1.3300e-003**	**0.1232**	**1.0700e-003**	**0.1243**	**0.0327**	**9.8000e-004**	**0.0337**		**132.7005**	**132.7005**	**5.6700e-003**		**132.8422**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2839**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0662	0.0533	0.5764	1.3300e-003	0.1168	1.0700e-003	0.1179	0.0311	9.8000e-004	0.0321		132.7005	132.7005	5.6700e-003		132.8422
Total	**0.0662**	**0.0533**	**0.5764**	**1.3300e-003**	**0.1168**	**1.0700e-003**	**0.1179**	**0.0311**	**9.8000e-004**	**0.0321**		**132.7005**	**132.7005**	**5.6700e-003**		**132.8422**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Archit. Coating	1.7511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**1.9933**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0353	0.0285	0.3074	7.1000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.7511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Total	**1.9933**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0353	0.0285	0.3074	7.1000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		70.7736	70.7736	3.0200e-003		70.8492
Total	**0.0353**	**0.0285**	**0.3074**	**7.1000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**70.7736**	**70.7736**	**3.0200e-003**		**70.8492**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

Other Asphalt Surfaces	0.533135	0.030877	0.202665	0.141212	0.024955	0.006027	0.018072	0.025901	0.004150	0.002959	0.007890	0.001253	0.000905	

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Unmitigated	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**		**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**		**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

East Laurel Drive - Monterey County, Winter

East Laurel Drive

Monterey County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.12		2.12	92,347.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2020
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 - trail approx. size

Construction Phase - Anticipated Schedule

Demolition - conservative estimation for demolition of 1 mile segment

Grading - The proposed project would disturb approximately 2.12 acres and involve approximately 375 cubic yards of cut and approximately 1,403 cubic yards of fill

Construction Off-road Equipment Mitigation - standard dust control measures

Water Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	220.00	34.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	PhaseEndDate	2/10/2020	3/13/2020
tblConstructionPhase	PhaseEndDate	12/14/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	12/28/2020	6/30/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	6/30/2020
tblConstructionPhase	PhaseStartDate	2/11/2020	3/14/2020
tblConstructionPhase	PhaseStartDate	12/15/2020	5/1/2020
tblConstructionPhase	PhaseStartDate	12/29/2020	6/1/2020
tblGrading	MaterialImported	0.00	1,028.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.3877	23.9961	16.9191	0.0331	6.7168	1.1652	7.7128	3.4109	1.0883	4.3274	0.0000	3,270.8644	3,270.8644	0.7703	0.0000	3,286.7345
Maximum	**3.3877**	**23.9961**	**16.9191**	**0.0331**	**6.7168**	**1.1652**	**7.7128**	**3.4109**	**1.0883**	**4.3274**	**0.0000**	**3,270.8644**	**3,270.8644**	**0.7703**	**0.0000**	**3,286.7345**

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					
2020	3.3877	23.9961	16.9191	0.0331	2.9537	1.1652	3.9497	1.4805	1.0883	2.3970	0.0000	3,270.8644	3,270.8644	0.7703	0.0000	3,286.7345
Maximum	**3.3877**	**23.9961**	**16.9191**	**0.0331**	**2.9537**	**1.1652**	**3.9497**	**1.4805**	**1.0883**	**2.3970**	**0.0000**	**3,270.8644**	**3,270.8644**	**0.7703**	**0.0000**	**3,286.7345**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.03**	**0.00**	**48.79**	**56.59**	**0.00**	**44.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/1/2020	3/13/2020	5	30	
4	Building Construction	Building Construction	3/14/2020	4/30/2020	5	34	
5	Paving	Paving	5/1/2020	6/30/2020	5	43	
6	Architectural Coating	Architectural Coating	6/1/2020	6/30/2020	5	22	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 15

Acres of Paving: 2.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 5,541

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	198.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	129.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	39.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2385	0.0000	2.2385	0.3390	0.0000	0.3390			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.2385**	**1.1525**	**3.3910**	**0.3390**	**1.0761**	**1.4151**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.0859	2.9916	0.6359	7.9400e-003	0.1727	0.0118	0.1845	0.0473	0.0113	0.0586		840.8687	840.8687	0.0332		841.6982

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	0.0625	0.0582	0.4915	1.0800e-003	0.1068	9.2000e-004	0.1077	0.0283	8.5000e-004	0.0292		107.6830	107.6830	4.6800e-003		107.8000
Total	**0.1484**	**3.0498**	**1.1274**	**9.0200e-003**	**0.2795**	**0.0127**	**0.2922**	**0.0756**	**0.0121**	**0.0878**		**948.5517**	**948.5517**	**0.0379**		**949.4982**

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					0.9570	0.0000	0.9570	0.1449	0.0000	0.1449			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.9570**	**1.1525**	**2.1094**	**0.1449**	**1.0761**	**1.2211**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

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	0.0859	2.9916	0.6359	7.9400e-003	0.1648	0.0118	0.1766	0.0454	0.0113	0.0567		840.8687	840.8687	0.0332		841.6982
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	0.0625	0.0582	0.4915	1.0800e-003	0.1012	9.2000e-004	0.1022	0.0270	8.5000e-004	0.0278		107.6830	107.6830	4.6800e-003		107.8000
Total	**0.1484**	**3.0498**	**1.1274**	**9.0200e-003**	**0.2661**	**0.0127**	**0.2788**	**0.0723**	**0.0121**	**0.0845**		**948.5517**	**948.5517**	**0.0379**		**949.4982**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**1.5908**	**0.7771**	**2.3678**	**0.1718**	**0.7149**	**0.8867**		**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0385	0.0358	0.3025	6.7000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

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					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149	0.0000	2,372.9062	2,372.9062	0.7675		2,392.0924
Total	**1.6521**	**19.9196**	**11.2678**	**0.0245**	**0.6801**	**0.7771**	**1.4571**	**0.0734**	**0.7149**	**0.7883**	**0.0000**	**2,372.9062**	**2,372.9062**	**0.7675**		**2,392.0924**

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	0.0385	0.0358	0.3025	6.7000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5597	0.0000	6.5597	3.3686	0.0000	3.3686			0.0000			0.0000

Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.5597**	**0.9902**	**7.5499**	**3.3686**	**0.9110**	**4.2796**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.0373	1.2994	0.2762	3.4500e-003	0.0750	5.1200e-003	0.0801	0.0205	4.9000e-003	0.0254		365.2258	365.2258	0.0144		365.5861
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	0.0481	0.0448	0.3781	8.3000e-004	0.0822	7.1000e-004	0.0829	0.0218	6.5000e-004	0.0224		82.8331	82.8331	3.6000e-003		82.9231
Total	**0.0854**	**1.3442**	**0.6543**	**4.2800e-003**	**0.1572**	**5.8300e-003**	**0.1630**	**0.0423**	**5.5500e-003**	**0.0479**		**448.0589**	**448.0589**	**0.0180**		**448.5092**

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					2.8043	0.0000	2.8043	1.4401	0.0000	1.4401			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.8043**	**0.9902**	**3.7944**	**1.4401**	**0.9110**	**2.3510**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

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	0.0373	1.2994	0.2762	3.4500e-003	0.0716	5.1200e-003	0.0767	0.0197	4.9000e-003	0.0246		365.2258	365.2258	0.0144		365.5861
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	0.0481	0.0448	0.3781	8.3000e-004	0.0779	7.1000e-004	0.0786	0.0207	6.5000e-004	0.0214		82.8331	82.8331	3.6000e-003		82.9231
Total	**0.0854**	**1.3442**	**0.6543**	**4.2800e-003**	**0.1495**	**5.8300e-003**	**0.1553**	**0.0405**	**5.5500e-003**	**0.0460**		**448.0589**	**448.0589**	**0.0180**		**448.5092**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0692	1.8579	0.5473	4.1900e-003	0.1015	0.0103	0.1118	0.0292	9.8500e-003	0.0391		440.5821	440.5821	0.0217		441.1251
Worker	0.1875	0.1746	1.4745	3.2500e-003	0.3204	2.7700e-003	0.3232	0.0850	2.5500e-003	0.0875		323.0489	323.0489	0.0140		323.4000
Total	**0.2567**	**2.0325**	**2.0219**	**7.4400e-003**	**0.4218**	**0.0131**	**0.4349**	**0.1142**	**0.0124**	**0.1266**		**763.6310**	**763.6310**	**0.0358**		**764.5251**

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	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

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	0.0692	1.8579	0.5473	4.1900e-003	0.0971	0.0103	0.1074	0.0281	9.8500e-003	0.0380		440.5821	440.5821	0.0217		441.1251

Worker	0.1875	0.1746	1.4745	3.2500e-003	0.3037	2.7700e-003	0.3064	0.0809	2.5500e-003	0.0834		323.0489	323.0489	0.0140		323.4000
Total	**0.2567**	**2.0325**	**2.0219**	**7.4400e-003**	**0.4008**	**0.0131**	**0.4139**	**0.1090**	**0.0124**	**0.1214**		**763.6310**	**763.6310**	**0.0358**		**764.5251**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2839**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0721	0.0672	0.5671	1.2500e-003	0.1232	1.0700e-003	0.1243	0.0327	9.8000e-004	0.0337		124.2496	124.2496	5.4000e-003		124.3846
Total	**0.0721**	**0.0672**	**0.5671**	**1.2500e-003**	**0.1232**	**1.0700e-003**	**0.1243**	**0.0327**	**9.8000e-004**	**0.0337**		**124.2496**	**124.2496**	**5.4000e-003**		**124.3846**

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2839**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

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	0.0721	0.0672	0.5671	1.2500e-003	0.1168	1.0700e-003	0.1179	0.0311	9.8000e-004	0.0321		124.2496	124.2496	5.4000e-003		124.3846
Total	**0.0721**	**0.0672**	**0.5671**	**1.2500e-003**	**0.1168**	**1.0700e-003**	**0.1179**	**0.0311**	**9.8000e-004**	**0.0321**		**124.2496**	**124.2496**	**5.4000e-003**		**124.3846**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Archit. Coating	1.7511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**1.9933**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0385	0.0358	0.3025	6.7000e-004	0.0657	5.7000e-004	0.0663	0.0174	5.2000e-004	0.0180		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0657**	**5.7000e-004**	**0.0663**	**0.0174**	**5.2000e-004**	**0.0180**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.7511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Total	**1.9933**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0385	0.0358	0.3025	6.7000e-004	0.0623	5.7000e-004	0.0629	0.0166	5.2000e-004	0.0171		66.2664	66.2664	2.8800e-003		66.3385
Total	**0.0385**	**0.0358**	**0.3025**	**6.7000e-004**	**0.0623**	**5.7000e-004**	**0.0629**	**0.0166**	**5.2000e-004**	**0.0171**		**66.2664**	**66.2664**	**2.8800e-003**		**66.3385**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

Other Asphalt Surfaces	0.533135	0.030877	0.202665	0.141212	0.024955	0.006027	0.018072	0.025901	0.004150	0.002959	0.007890	0.001253	0.000905	

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Unmitigated	0.0433	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**		**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.6000e-004	4.6000e-004	0.0000		5.0000e-004
Total	**0.0433**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.6000e-004**	**4.6000e-004**	**0.0000**		**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

East Laurel Drive

Monterey County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.12		2.12	92,347.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2020
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 - trail approx. size

Construction Phase - Anticipated Schedule

Demolition - conservative estimation for demolition of 1 mile segment

Grading - The proposed project would disturb approximately 2.12 acres and involve approximately 375 cubic yards of cut and approximately 1,403 cubic yards of fill

Construction Off-road Equipment Mitigation - standard dust control measures

Water Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	220.00	34.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	PhaseEndDate	2/10/2020	3/13/2020
tblConstructionPhase	PhaseEndDate	12/14/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	12/28/2020	6/30/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	6/30/2020
tblConstructionPhase	PhaseStartDate	2/11/2020	3/14/2020
tblConstructionPhase	PhaseStartDate	12/15/2020	5/1/2020
tblConstructionPhase	PhaseStartDate	12/29/2020	6/1/2020
tblGrading	MaterialImported	0.00	1,028.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1495	1.2100	0.9082	1.7500e-003	0.1385	0.0595	0.1979	0.0583	0.0556	0.1139	0.0000	152.8864	152.8864	0.0344	0.0000	153.7473
Maximum	**0.1495**	**1.2100**	**0.9082**	**1.7500e-003**	**0.1385**	**0.0595**	**0.1979**	**0.0583**	**0.0556**	**0.1139**	**0.0000**	**152.8864**	**152.8864**	**0.0344**	**0.0000**	**153.7473**

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					
2020	0.1495	1.2100	0.9082	1.7500e-003	0.0672	0.0595	0.1267	0.0271	0.0556	0.0827	0.0000	152.8862	152.8862	0.0344	0.0000	153.7471
Maximum	**0.1495**	**1.2100**	**0.9082**	**1.7500e-003**	**0.0672**	**0.0595**	**0.1267**	**0.0271**	**0.0556**	**0.0827**	**0.0000**	**152.8862**	**152.8862**	**0.0344**	**0.0000**	**153.7471**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**51.48**	**0.00**	**36.01**	**53.51**	**0.00**	**27.39**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	0.7978	0.7978
2	4-1-2020	6-30-2020	0.5581	0.5581
		Highest	0.7978	0.7978

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.9000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9000e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**6.0000e-005**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.9000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9000e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**6.0000e-005**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/1/2020	3/13/2020	5	30	
4	Building Construction	Building Construction	3/14/2020	4/30/2020	5	34	
5	Paving	Paving	5/1/2020	6/30/2020	5	43	
6	Architectural Coating	Architectural Coating	6/1/2020	6/30/2020	5	22	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 15

Acres of Paving: 2.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 5,541

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	198.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	129.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	39.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0224	0.0000	0.0224	3.3900e-003	0.0000	3.3900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0224**	**0.0115**	**0.0339**	**3.3900e-003**	**0.0108**	**0.0142**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

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	8.4000e-004	0.0299	6.0700e-003	8.0000e-005	1.6800e-003	1.2000e-004	1.7900e-003	4.6000e-004	1.1000e-004	5.7000e-004	0.0000	7.7168	7.7168	2.9000e-004	0.0000	7.7241
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	5.3000e-004	4.7300e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9826	0.9826	4.0000e-005	0.0000	0.9837
Total	**1.4100e-003**	**0.0304**	**0.0108**	**9.0000e-005**	**2.7100e-003**	**1.3000e-004**	**2.8300e-003**	**7.3000e-004**	**1.2000e-004**	**8.5000e-004**	**0.0000**	**8.6994**	**8.6994**	**3.3000e-004**	**0.0000**	**8.7077**

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					9.5700e-003	0.0000	9.5700e-003	1.4500e-003	0.0000	1.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**9.5700e-003**	**0.0115**	**0.0211**	**1.4500e-003**	**0.0108**	**0.0122**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

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	8.4000e-004	0.0299	6.0700e-003	8.0000e-005	1.6000e-003	1.2000e-004	1.7200e-003	4.4000e-004	1.1000e-004	5.5000e-004	0.0000	7.7168	7.7168	2.9000e-004	0.0000	7.7241
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	5.3000e-004	4.7300e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9826	0.9826	4.0000e-005	0.0000	0.9837
Total	**1.4100e-003**	**0.0304**	**0.0108**	**9.0000e-005**	**2.5800e-003**	**1.3000e-004**	**2.7100e-003**	**7.0000e-004**	**1.2000e-004**	**8.2000e-004**	**0.0000**	**8.6994**	**8.6994**	**3.3000e-004**	**0.0000**	**8.7077**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**2.3900e-003**	**1.1700e-003**	**3.5600e-003**	**2.6000e-004**	**1.0700e-003**	**1.3300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	5.0000e-005	4.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908

Total	**5.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0907**	**0.0907**	**0.0000**	**0.0000**	**0.0908**

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					1.0200e-003	0.0000	1.0200e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**1.0200e-003**	**1.1700e-003**	**2.1900e-003**	**1.1000e-004**	**1.0700e-003**	**1.1800e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	5.0000e-005	4.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908
Total	**5.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0907**	**0.0907**	**0.0000**	**0.0000**	**0.0908**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.3201	0.1490	3.1000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	27.1666	27.1666	8.7900e-003	0.0000	27.3863
Total	**0.0288**	**0.3201**	**0.1490**	**3.1000e-004**	**0.0984**	**0.0149**	**0.1133**	**0.0505**	**0.0137**	**0.0642**	**0.0000**	**27.1666**	**27.1666**	**8.7900e-003**	**0.0000**	**27.3863**

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	5.5000e-004	0.0195	3.9600e-003	5.0000e-005	1.0900e-003	8.0000e-005	1.1700e-003	3.0000e-004	7.0000e-005	3.7000e-004	0.0000	5.0276	5.0276	1.9000e-004	0.0000	5.0324
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	6.1000e-004	5.4600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1338	1.1338	5.0000e-005	0.0000	1.1350
Total	**1.2100e-003**	**0.0201**	**9.4200e-003**	**6.0000e-005**	**2.2800e-003**	**9.0000e-005**	**2.3700e-003**	**6.2000e-004**	**8.0000e-005**	**7.0000e-004**	**0.0000**	**6.1614**	**6.1614**	**2.4000e-004**	**0.0000**	**6.1673**

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					0.0421	0.0000	0.0421	0.0216	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.3201	0.1490	3.1000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	27.1666	27.1666	8.7900e-003	0.0000	27.3863
Total	**0.0288**	**0.3201**	**0.1490**	**3.1000e-004**	**0.0421**	**0.0149**	**0.0569**	**0.0216**	**0.0137**	**0.0353**	**0.0000**	**27.1666**	**27.1666**	**8.7900e-003**	**0.0000**	**27.3863**

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	5.5000e-004	0.0195	3.9600e-003	5.0000e-005	1.0400e-003	8.0000e-005	1.1200e-003	2.9000e-004	7.0000e-005	3.6000e-004	0.0000	5.0276	5.0276	1.9000e-004	0.0000	5.0324
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	6.1000e-004	5.4600e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1338	1.1338	5.0000e-005	0.0000	1.1350
Total	**1.2100e-003**	**0.0201**	**9.4200e-003**	**6.0000e-005**	**2.1700e-003**	**9.0000e-005**	**2.2600e-003**	**5.9000e-004**	**8.0000e-005**	**6.7000e-004**	**0.0000**	**6.1614**	**6.1614**	**2.4000e-004**	**0.0000**	**6.1673**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0389	0.2964	0.2533	4.3000e-004		0.0161	0.0161		0.0155	0.0155	0.0000	35.2996	35.2996	7.1600e-003	0.0000	35.4787
Total	**0.0389**	**0.2964**	**0.2533**	**4.3000e-004**		**0.0161**	**0.0161**		**0.0155**	**0.0155**	**0.0000**	**35.2996**	**35.2996**	**7.1600e-003**	**0.0000**	**35.4787**

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	1.1400e-003	0.0317	8.6700e-003	7.0000e-005	1.6800e-003	1.7000e-004	1.8500e-003	4.9000e-004	1.7000e-004	6.5000e-004	0.0000	6.9121	6.9121	3.2000e-004	0.0000	6.9201
Worker	2.9000e-003	2.7000e-003	0.0241	6.0000e-005	5.2700e-003	5.0000e-005	5.3200e-003	1.4000e-003	4.0000e-005	1.4400e-003	0.0000	5.0112	5.0112	2.2000e-004	0.0000	5.0166
Total	**4.0400e-003**	**0.0344**	**0.0328**	**1.3000e-004**	**6.9500e-003**	**2.2000e-004**	**7.1700e-003**	**1.8900e-003**	**2.1000e-004**	**2.0900e-003**	**0.0000**	**11.9234**	**11.9234**	**5.4000e-004**	**0.0000**	**11.9367**

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	0.0389	0.2964	0.2533	4.3000e-004		0.0161	0.0161		0.0155	0.0155	0.0000	35.2995	35.2995	7.1600e-003	0.0000	35.4786
Total	**0.0389**	**0.2964**	**0.2533**	**4.3000e-004**		**0.0161**	**0.0161**		**0.0155**	**0.0155**	**0.0000**	**35.2995**	**35.2995**	**7.1600e-003**	**0.0000**	**35.4786**

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	1.1400e-003	0.0317	8.6700e-003	7.0000e-005	1.6100e-003	1.7000e-004	1.7800e-003	4.7000e-004	1.7000e-004	6.3000e-004	0.0000	6.9121	6.9121	3.2000e-004	0.0000	6.9201
Worker	2.9000e-003	2.7000e-003	0.0241	6.0000e-005	4.9900e-003	5.0000e-005	5.0400e-003	1.3300e-003	4.0000e-005	1.3800e-003	0.0000	5.0112	5.0112	2.2000e-004	0.0000	5.0166
Total	**4.0400e-003**	**0.0344**	**0.0328**	**1.3000e-004**	**6.6000e-003**	**2.2000e-004**	**6.8200e-003**	**1.8000e-003**	**2.1000e-004**	**2.0100e-003**	**0.0000**	**11.9234**	**11.9234**	**5.4000e-004**	**0.0000**	**11.9367**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2491	0.2539	3.8000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	33.3374	33.3374	0.0106	0.0000	33.6015
Paving	2.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0276**	**0.2491**	**0.2539**	**3.8000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**33.3374**	**33.3374**	**0.0106**	**0.0000**	**33.6015**

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	1.4100e-003	1.3100e-003	0.0117	3.0000e-005	2.5600e-003	2.0000e-005	2.5900e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.4376	2.4376	1.0000e-004	0.0000	2.4402
Total	**1.4100e-003**	**1.3100e-003**	**0.0117**	**3.0000e-005**	**2.5600e-003**	**2.0000e-005**	**2.5900e-003**	**6.8000e-004**	**2.0000e-005**	**7.0000e-004**	**0.0000**	**2.4376**	**2.4376**	**1.0000e-004**	**0.0000**	**2.4402**

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	0.0248	0.2491	0.2539	3.8000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	33.3374	33.3374	0.0106	0.0000	33.6015
Paving	2.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0276**	**0.2491**	**0.2539**	**3.8000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**33.3374**	**33.3374**	**0.0106**	**0.0000**	**33.6015**

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	1.4100e-003	1.3100e-003	0.0117	3.0000e-005	2.4300e-003	2.0000e-005	2.4500e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.4376	2.4376	1.0000e-004	0.0000	2.4402
Total	**1.4100e-003**	**1.3100e-003**	**0.0117**	**3.0000e-005**	**2.4300e-003**	**2.0000e-005**	**2.4500e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.4376**	**2.4376**	**1.0000e-004**	**0.0000**	**2.4402**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0185	0.0202	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	2.8086	2.8086	2.2000e-004	0.0000	2.8140
Total	**0.0219**	**0.0185**	**0.0202**	**3.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**2.8086**	**2.8086**	**2.2000e-004**	**0.0000**	**2.8140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.6000e-004	3.2000e-003	1.0000e-005	7.0000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6651	0.6651	3.0000e-005	0.0000	0.6659
Total	**3.9000e-004**	**3.6000e-004**	**3.2000e-003**	**1.0000e-005**	**7.0000e-004**	**1.0000e-005**	**7.1000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6651**	**0.6651**	**3.0000e-005**	**0.0000**	**0.6659**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0185	0.0202	3.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	2.8086	2.8086	2.2000e-004	0.0000	2.8140
Total	**0.0219**	**0.0185**	**0.0202**	**3.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**2.8086**	**2.8086**	**2.2000e-004**	**0.0000**	**2.8140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.6000e-004	3.2000e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.7000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	0.6651	0.6651	3.0000e-005	0.0000	0.6659
Total	**3.9000e-004**	**3.6000e-004**	**3.2000e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**1.8000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6651**	**0.6651**	**3.0000e-005**	**0.0000**	**0.6659**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.533135	0.030877	0.202665	0.141212	0.024955	0.006027	0.018072	0.025901	0.004150	0.002959	0.007890	0.001253	0.000905

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.9000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	7.9000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	**7.9000e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**6.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	**7.9000e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**6.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lighting GHG and Energy Calculation	
Watts	6,226
Hours	12
Days	365
Total Watts/year	27,269,880
kWh/year	27269.88
MWh/year	27.26988

Type of Light	Wattage	Number	Total Watts
Street Lighting	101	42	4,242
	127	10	1,270
Ped Trail Lighting	21	34	714
Total		86	6,226

52 total street lights

34 total pedestrian lights

GHG	PG&E Carbon Intensity (lbs/MWh)	Emissions		
		Pounds	Metric Tons	CO_2e
CO_2	641.345	17489.4	7.93305946	7.933059
CH_4	0.029	0.790827	0.000358713	0.008968
N_2O	0.00617	0.168255	7.63193E-05	0.022743
Total				**7.96477**

Appendix B: Biological Report

East Laurel Drive Sidewalk Project
City of Salinas

Biological Report

Biotic Resources Group

Biotic Assessments ◆ Resource Management ◆ Permitting

Biotic Resources Group
Biotic Assessments ◆ Resource Management ◆ Permitting

East Laurel Drive Sidewalk Project
City of Salinas

Biological Report

Prepared for:

Kimley-Horn
Attn: Alex Jewell

Prepared by:

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Biotic Resources Group

With

Dana Bland, Wildlife Biologist
Dana Bland & Associates

August 28, 2018

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EAST LAUREL DRIVE SIDEWALK PROJECT

BIOLOGICAL RESOURCES

1.0 INTRODUCTION

The East Laurel Drive Sidewall Project is located in the City of Salinas. The site is accessed from East Laurel Drive; the proposed project site extends along the north side of East Laurel Drive from St. Edwards Drive to Constitution Boulevard and along the east side of Constitution Boulevard from East Laurel Drive to 350 feet west of Twin Creek Drive. The project area includes portions of both Gabilan and Natividad creeks. The project site is located within a portion of the Constitution Soccer Fields and Veterans Memorial Park. The project location is depicted on Figure 1.

Specific tasks conducted for this study include:

- Characterize the major plant communities within the project area and the immediate project area,
- Identify sensitive biotic resources, including species and habitat of concern, within the project area, and
- Identify biological constraints and recommend measures, if necessary, to avoid or reduce impacts to sensitive resources.

1.1 Description of Proposed Project

The purpose of the proposed project is to close the sidewalk gap within the project area and provide nighttime lighting along the roadway and the trail around Natividad Creek detention pond. This would provide safer passage of pedestrians and cyclists. The proposed project is needed because pedestrians and cyclists from the residential neighborhoods on the east end of the project area use this route to access the City's park, soccer fields, medical facilities, and other County facilities at the Laurel Drive/Constitution Boulevard intersection. Pedestrians and cyclists have limited areas of travel along East Laurel Drive and Constitution Boulevard and have unsafe lighting conditions between dusk and dawn.

The proposed project would include the following improvements:

- East Laurel Drive (north side):
    - Install new sidewalk with curb and gutter with a maximum depth of 2.5 feet—width as indicated—in the following areas:
        - North Sanborn Road to St. Edwards Drive (4-foot wide sidewalk)
        - End of proposed boardwalk to existing trailhead and access driveway (a total of 40 feet) (Tapering width from 6-foot to 4-foot)
        - Ranch View Lane to Constitution Boulevard (6-foot wide sidewalk)
        - Along the east side of Constitution Boulevard extending from the Laurel Dr. intersection to the drive entrance to the soccer fields (6 feet wide sidewalk)
        - East side of Constitution Boulevard from the entrance to the soccer fields northeasterly for approximately 1,700-feet (10-foot wide meandering sidewalk)

    - Install six-foot sidewalk, beginning at St. Edwards Drive and extending roughly 2,100 feet west, with a maximum depth of 30 feet. Pending geotechnical and design analysis, the design solution could include a sidewalk supported on a traditional continuous concrete retaining wall supported on drilled pier footings at approximately 20-foot spacing, or boardwalk construction supported on drilled helical anchors at 6-foot transverse spacing and 10-foot longitudinally spacing.
    - Rehabilitate the existing trailhead and concrete sidewalk and provided ADA-compliant transition from the existing trailhead and access driveway west to Ranch View Lane.
    - Install pedestrian crosswalk and ADA-complaint ramp at Ranch View Lane
    - Drainage improvements at structure between Natividad Creek Detention Basin and existing trail.
- East side of Constitution Boulevard:
    - Install new six-foot sidewalk with curb and gutter with a maximum depth of 2.5 feet from East Laurel Drive to 350 feet west of Twin Creek Drive
- Modify the traffic signal at East Laurel Drive and Constitution Boulevard and provide ADA-compliant ramps and signal warnings. All proposed improvements would fall within the existing improvements' footprint.
    - ADA-compliant ramps would have a maximum depth of 2.5 feet
    - Traffic signal modifications would have a maximum depth of 7 feet
- Install street lighting with a foundation depth of up to 12 feet within the median, south side, or along the north side of East Laurel Drive from North Sanborn Road to Natividad Road.
- Install solar LED pedestrian scale lighting with a foundation depth of 3 feet:
    - On the trail around Natividad Creek detention basis from East Laurel Drive to the connection with Garner Avenue and Gee Street.
    - On the trail at Veterans Memorial Park from East Laurel Drive north to the Gabilan Creek pedestrian bridge.

The project limits of work used to analyze impacts for this report are based on the Geometric Layout, prepared by Kimley-Horn, dated August 2018.

1.2 Intended Use of this Report

The findings presented in this biological report are intended for the sole use of Kimley-Horn in evaluating the proposed project. The findings presented by the Biotic Resources Group in this report are for information purposes only; they are not intended to represent the interpretation of any State, Federal or City law or ordinance pertaining to permitting actions within sensitive habitat or endangered species. The interpretation of such laws and/or ordinances is the responsibility of the applicable governing body.

2.0 METHODOLOGY

The biological resources of the project area were assessed through literature review and field observations. Kathleen Lyons (plant ecologist) and Dana Bland (wildlife biologist) conducted a field reconnaissance of the area on June 20, 2018. A previous survey of the East Laurel Boulevard area was conducted on November 23, 2015, as part of a preliminary constraints analysis for the project (Biotic Resources Group, 2015). The major plant communities within the project area were identified during the field visit(s) and review of aerial photographs. The distribution of plant

communities on the site was depicted onto an aerial photo. The general conditions of the habitats on the site were recorded and species observed were recorded in a field notebook.

To assess the potential occurrence of special status biological resources, two electronic databases were accessed to determine recorded occurrences of sensitive plant communities and sensitive species. Information was obtained from the California Native Plant Society's (CNPS) Electronic Rare Plant Inventory (2018) and California Department of Fish & Wildlife (CDFW) RareFind 5 database (CDFW, 2018) for the quadrangle containing the project site: Natividad U.S.G.S., 7.5' quadrangle and the surrounding eight quadrangles: Salinas, Prunedale, Chittenden, Watsonville East, Gilroy and San Juan Bautista.

3.0 EXISTING ENVIRONMENTAL CONDITIONS

The project site is located within the City of Salinas. The habitat types on the project site include non-native grassland/ruderal, riparian woodland, coyote brush/poison oak scrub, and landscape tree groves. The landscape trees occur along East Laurel Drive, along Constitution Boulevard, and in backyards of nearby residences. The project area also includes a riparian mitigation area (area planted with native trees and shrubs).

The site is located westward of the Natividad Creek detention pond, which supports open water and is ringed by riparian woodland vegetation. Riparian woodland also grows along Gabilan Creek, a perennial waterway that is located in the northern portion of the project site, and along an unnamed tributary to Gabilan Creek that is located along Constitution Boulevard.

The proposed area of impact is depicted on Figure 2. The distribution of vegetation types in the project area is depicted on Figure 3. The vegetation types are listed on Table 1.

Table 1. Plant Associations within East Laurel Drive Sidewalk Project Area, July 2018

CNDDB Code	Map Code (Figure 3)	Vegetation Type	Plant Association
42.040.00	NNG	Non-native Grassland/Ruderal	Italian ryegrass, bull mallow, filaree, wild mustard
61.130.00	RW	Riparian Woodland	Black cottonwood - willow – sycamore – box elder
32.060.17	CBS	Coyote Brush/Poison Oak Scrub	Coyote brush – poison oak – California blackberry
None	LT	Landscape Trees	Eucalyptus – Monterey cypress

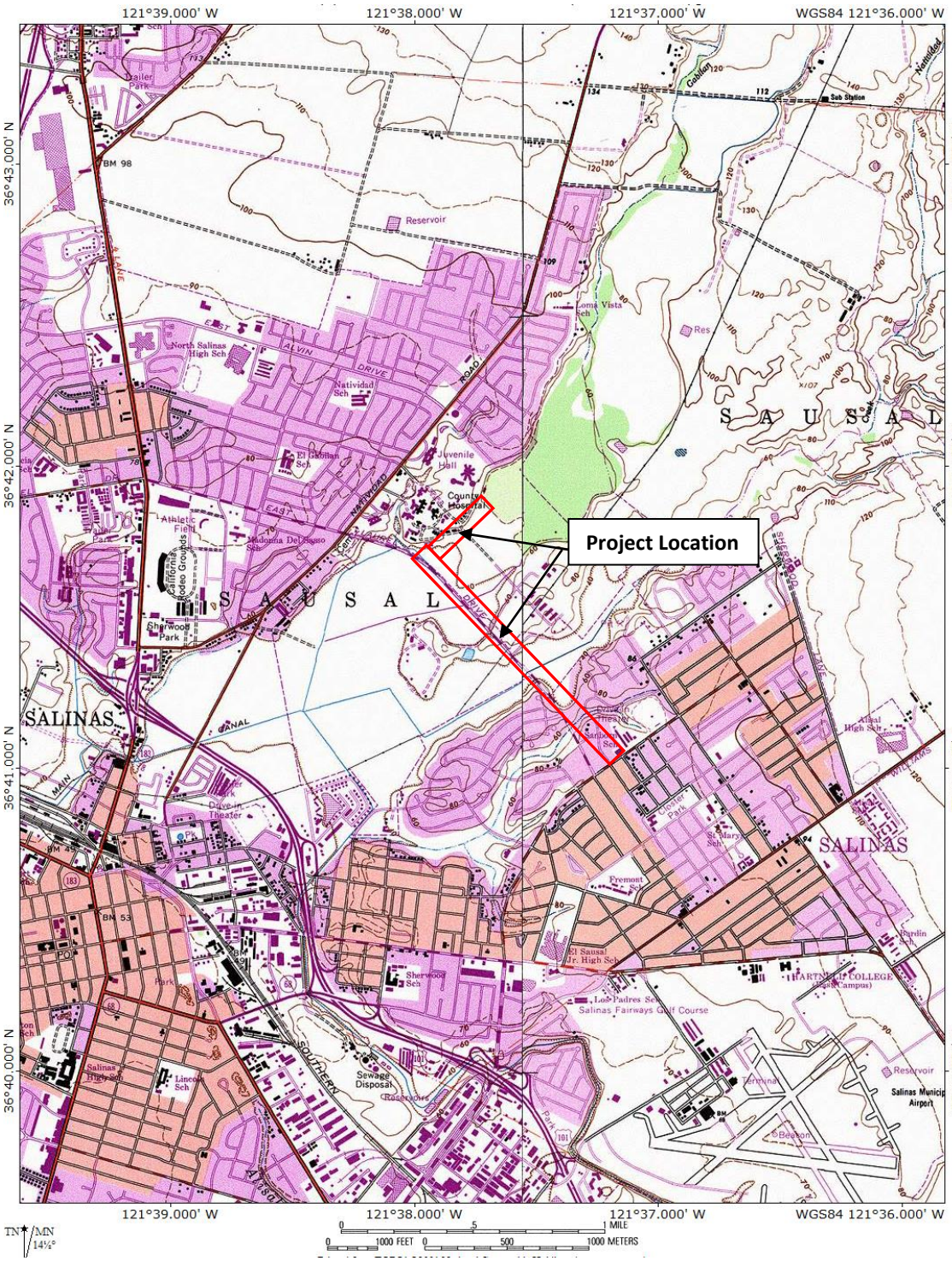

Figure 1. Location of Project
(USGS Natividad Quadrangle)

Figure 2. Proposed Area of Impact (Source: Kimley-Horn, 2018)

Figure 3. Distribution of Vegetation Types

3.1 Non-native Grassland

The project area supports non-native grassland, with ruderal (weedy) areas. This vegetation occurs within the Constitution Soccer Fields (southwest of intersection of Constitution Boulevard and East Laurel Drive), irrigated turf within the Veterans Memorial Park, along portions of the embankment of the East Laurel Drive, and undeveloped adjacent to East Laurel Drive, as depicted on Figures 4 and 5. The condition of grassland areas is depicted in Figures 3 and 4.

Figure 4. Non-native grassland within Soccer Fields

Figure 5. Non-native grassland/ruderal areas east of East Laurel Drive

The grassland/ruderal (weedy) areas are dominated by annual non-native plant species. The dominant grass species are Italian ryegrass (*Lolium multiflorum)*, bull mallow (*Malva neglecta)*, filaree (*Erodium botrys)*, and wild mustard (*Brassica rapa)*. Other plant species include wild radish (*Raphanus sativa)*, sidewalk conyza (*Conyza bonariensis)*, white sweet clover (*Melilotus alba)*, English plantain (*Plantago lanceolata)*, and cut-leaved plantain (*Plantago coronopus)*.

Individuals of Congdon's tarplant, a special status plant species, were documented from a grassland/ruderal and scrub area located westward of the project site (see Figure 3).

The grasslands in the project area provide forage for seed and insect eating birds, as well as for small rodents, which in turn are prey for raptors and snakes. The value of the grassland to native wildlife is moderated by the adjacent existing developments, busy roads, and mowing, but still provides some wildlife habitat particularly for those species that can tolerate high human

presence. Common species expected to make use of this grassland include house finch (*Carpodacus mexicanus*), American goldfinch (*Carduelis tristis*), and Botta's pocket gopher (*Thomomys bottae*). The small mammals in this grassland may attract predators such as red-tailed hawk *(Buteo jamaicensis)* and gopher snake (*Pituophis melanoleucus*).

3.2 Riparian Woodland

The riparian woodland grows along the banks of Gabilan Creek, along the Natividad Creek detention pond, along a drainage swale near the Veterans Memorial Park, and along an unnamed creek that parallels Constitution Boulevard. Young riparian woodland is also present within a planted riparian mitigation area near the Natividad Creek pond. The woodland vegetation along Gabilan Creek and Natividad ponds includes mature trees of black cottonwood (*Populus trichocarpa)*, sycamore (*Platanus racemosa)*, willow (*Salix sp.)*, box elder (*Acer negundo)*, and big leaf maple (*Acer macrophyllum)*. Understory plant species include coyote brush (*Baccharis pilularis)*, poison oak (*Toxicodendron diversilobum)*, creeping ryegrass (*Leymus triticoides)*, and California blackberry (*Rubus ursinus)*. Water smartweed (*Polygonum sp.)* was observed along the edge of the Natividad Creek detention pond. The creek along Constitution Boulevard supports a dense growth of willows.

Riparian woodland along East Laurel Drive near Gabilan Creek and along the edge of the Natividad Creek detention pond is depicted in Figures 6 and 7, respectively.

In general, riparian habitats are one of the highest value habitats for wildlife species diversity and abundance in California. Factors which contribute to the high wildlife value include the presence of surface water, the variety of niches provided by the high structural complexity of the habitat, and the abundance of plant growth. The value of the riparian habitat along the project site to wildlife is moderated by the relatively narrow corridor, high human use of the surrounding developments, roads, and seasonal water. Common wildlife species that may inhabit this riparian habitat include Pacific treefrog (*Hyla regilla*), bullfrog (*Rana catesbeiana*), Wilson's warbler (*Wilsonia pusilla*), Bewick's wren (*Thryomanes bewickii*), red-shouldered hawk (*Buteo lineatus*), raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*).

Figure 6. Riparian woodland along East Laurel Drive near Gabilan Creek

Figure 7. Riparian woodland along edge of Natividad Creek detention pond

3.3 Coyote Brush Scrub

Some portions of the embankment of East Laurel Drive support a dense growth of coyote brush and poison oak, with lesser amounts of California blackberry. Non-native plant species are also present, such as poison hemlock (*Conium maculatum*), wild radish (*Raphanus sativa*), fennel (*Foeniculum vulgare*), and bristly ox-tongue (*Picris echioides*). The character of this scrub vegetation is depicted in Figure 8.

The berries of shrubs and the seeds of herbaceous plants in the brush/scrub habitat provide forage for wildlife; however, the proximity of this scrub habitat to the busy roadway and nearby development moderates the overall value to wildlife. Wildlife may perch on the outer perimeter of scrub to take advantage of hunting opportunities in adjacent openings and take cover in the denser shrub patches as needed. The dense shrub patches also provide nesting habitat for some birds. Where the scrub abuts riparian and wetland habitat, the diversity of the fauna is expected to be higher because of the presence of water and foraging opportunities in the adjacent riparian and wetland, and the increased complexity of habitat providing additional niches for nesting, foraging and cover.

Common wildlife species observed or expected to occur in the scrub habitat within the project area include western fence lizard (*Sceloporus occidentalis*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), California towhee (*Pipilo crissalis*), and white-crowned sparrow (*Zonotrichia leucophrys*).

3.4 Landscape Trees and Tree Groves

The project area supports planted landscape trees. These trees grow along the East Laurel Drive embankment, within Veterans Memorial Park, and in the backyards of residences along East Laurel Drive. Tree species include eucalyptus (*Eucalyptus sp.)*, Monterey cypress (*Cupressus macrocarpa)*, coast live oak (*Quercus agrifolia)*, western sycamore/plane trees (*Platanus sp.)*, and *Prunus sp.*

The wildlife value of the landscape trees is low due to the adjacent development. However, the acorns from the oaks and seeds from the other trees provide forage for bird species that can tolerate the high human presence including acorn woodpecker (*Melanerpes formicivorus*), western scrub-

jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), and western gray squirrel (*Sciurus griseus*).

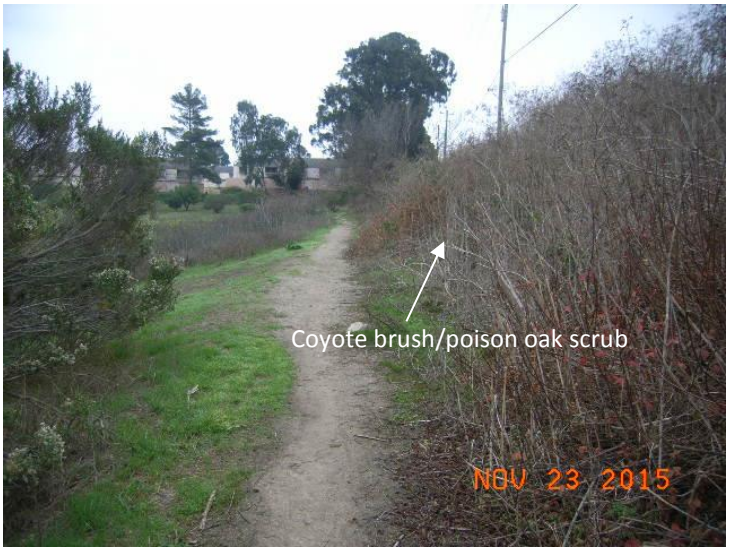

Figure 8. Coyote brush/poison oak scrub along embankment of East Laurel Drive

Figure 9. Landscape trees along Constitution Boulevard

4.0 SENSITIVE BIOTIC RESOURCES

4.1 Sensitive Habitats

Sensitive habitats are defined by local, state, or federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. California Department of Fish and Wildlife (CDFW) classifies and ranks the State's natural communities to assist in the determining the level of rarity and imperilment. Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (CDFW, 2007 and 2010). Within the project area, the riparian woodland is considered rare and worthy of consideration by CNDDB (CNDDB, 2010). In addition, areas that support special status species, such as Congdon's tarplant, are considered sensitive.

4.2 Regulated Habitats

CDFW is a trustee agency that has jurisdiction under CDFW Code Section 1600 et seq. CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake which supports fish or wildlife. Along watercourses, CDFW jurisdictional limit typically extends to the top of bank or to the edge of riparian habitat if such habitat extends beyond top of bank (outer drip line), whichever is greater. The following areas are expected to be under the jurisdiction of CDFW:

1. Gabilan Creek, extending to top-of-bank or outer edge of riparian woodland, whichever is greatest.
2. Natividad Creek detention pond, to outer edge of riparian woodland
3. Drainage swale near Veterans Memorial Park, extending to top-of-bank or outer edge of riparian woodland, whichever is greatest.
4. Intermittent creek along Constitution Boulevard, extending to top-of-bank or outer edge of riparian woodland, whichever is greatest.

Activities within these areas may be subject to permit action by CDFW. The state agency has a no-net-loss policy for riparian habitat. CDFW requires riparian habitat replacement ratio for impacts to riparian woodland, pursuant to the project's CEQA review and issuance of a Streambed Alteration Agreement.

Water quality in California is governed by the Porter-Cologne Water Quality Control Act and certification authority under Section 401 of the Clean Water Act, as administered by the Regional Water Quality Control Board (RWQCB). The Section 401 water quality certification program allows the State to ensure that activities requiring a Federal permit or license comply with State water quality standards. Water quality certification must be based on a finding that the proposed discharge will comply with water quality standards which are in the regional board's basin plans. The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the waters of the state to file a report of waste discharge. The RWQCB issues a permit or waiver that includes implementing water quality control plans that take into account the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features and saline waters. Should there be no Section 404 nexus (i.e., isolated feature not subject to USACE jurisdiction); a report of waste discharge (ROWD) should be filed with the RWQCB. The RWQCB interprets waste to include fill placed into water bodies.

The following areas are expected to be under the jurisdiction of RWQCB:

1. Gabilan Creek, extending to top-of-bank.

2. Natividad Creek detention pond.
3. Drainage swale near Veterans Memorial Park, extending to top-of-bank.
4. Intermittent creek along Constitution Boulevard, extending to top-of-bank.

The US Army Corps of Engineers (USACE) regulates activities within waters of the United States pursuant to congressional acts: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (1977, as amended). Section 10 of the Rivers and Harbors Act requires a permit for any work in, over, or under navigable waters of the United States. Navigable waters are defined as those waters subject to the ebb and flow of the tide to the Mean High Water mark (tidal areas) or below the Ordinary High Water Mark (OHWM) (freshwater areas). The USACE has ultimate responsibility for determining the extent of their jurisdiction. In general, fill placed with jurisdictional waters is subject to permitting. Although a formal delineation of wetlands was not conducted as part of this study, the following areas are expected to be under the jurisdiction of USACE:

1. Gabilan Creek, extending to OHWM.
2. Natividad Creek detention pond, to OHWM
3. Drainage swale near Veterans Memorial Park, extending to OHWM.
4. Intermittent creek along Constitution Boulevard, extending to OHWM.

The City of Salinas General Plan requires a 100-foot setback between development and creeks (measured from top-of bank or outer edge of the riparian woodland, whichever is greater). Encroachments into the 100-foot creek setback may be considered pursuant to the General Plan COS-17 Implementation Program. Development activities may be considered for certain areas within the City if the encroachment will not have a significant adverse impact on the riparian and wetland resources because mitigation measures will achieve a comparable or better level of mitigation than the 100-foot setback OR the property is adjacent to a reclamation ditch and no riparian or wetland resources are identified outside the ditch. A portion of the proposed project area is within an area of the City subject to consideration of a creek setback encroachment (i.e., within and adjacent to Gabilan Creek, Natividad Creek detention pond, drainage swale near Veterans Memorial Park, and intermittent creek along Constitution Boulevard (pending confirmation by the City).

4.3 Special Status Plant Species

Plant species of concern include those listed by either the Federal or State resource agencies as well as those identified as rare (i.e., List 1B) by CNPS. The search of the CNPS and CNDDB inventories for the area resulted in several special status plant species of concern known, or with potential, to occur within the project area (Table 2). The 2018 survey was conducted in June and the 2015 survey was conducted during November. A colony of Congdon's tarplant was identified during the survey (see discussion below). The CNDDB lists an occurrence of alkali milkvetch (*Astragalus tener tener)*, from the greater project region. This annual plant species grows in low, alkaline grasslands. No individuals were observed; this species typically bloom March to June and would have been detected during the June 2018 survey, yet none were detected in the project area. Suitable habitat may be present on the flat floodplain adjacent to the Natividad Creek pond, yet this area is located east of the proposed project. No other special status plant species were documented on the site during the survey, and none are expected due to a lack of suitable habitat.

Congdon's Tarplant (*Centromadia parryi ssp. congdonii)*. This species is recognized as rare by the California Native Plant Society (List 1B). The species is also considered rare by the California Department of Fish and Game (CDFW); however, the species is not currently listed as rare or endangered under the California Endangered Species Act. The species is not currently listed as rare or endangered under the Federal Endangered Species Act.

Congdon's tarplant grows in annual grasslands, typically in areas with high seasonal moisture. The blooming period is typically from June to October. Because Congdon's tarplant is an annual species, its population can vary from year to year depending upon weather conditions (e.g., rainfall, temperature), as well as human and natural disturbances within the species' habitat. Seeds are known to persist in the soil seedbank and germinate under favorable conditions. The species responds well to site disturbances that remove thatch and create open areas that are conducive to seed germination and plant growth. The species is depicted in Figure 10.

Figure 10. Congdon's tarplant growing in grassland/scrub area south of Natividad Creek pond and east of East Laurel Drive project area

This species is known from the greater Monterey Bay region, with several occurrences recorded in the CNDDB from the Salinas area. The closest recorded colony is located south of the Natividad Creek detention pond where the species grows on a low, flat floodplain east of East Laurel Drive. Another colony of this species is known from the Gabilan Creek floodplain, upstream of the project site near the intersection of Independence and Constitution Boulevard.

Congdon's tarplant was observed on the Natividad Creek pond floodplain. The tarplant was observed growing amid grassland and coyote brush scrub on a low terrace approximately 75 feet east of the proposed project site. The approximate location of this colony is depicted on Figure 2.

Table 2. List of Special Status Plant Species Evaluated as to their Potential to Occur in the Vicinity of the East Laurel Drive Sidewalk Project Area, July 2018

Species	CNPS	State Status	Federal Status	Habitat Type	Occurrence in Vicinity by CNDDB? Likely Occurrence on Site?
Vernal pool bent grass (*Agrostis lacuna-vernalis*)	List 1B.1	None	None	Vernal pools, mima mounds	Known from Ft. Ord Project area does not provide suitable habitat
Hickman's Onion (*Allium hickmanii*)	List 1B.2	None	None	Closed cone coniferous forests, chaparral, coastal bluff scrub	Recorded from south of Marina (Ft. Ord) Project area does not provide suitable habitat
Gabilan Mtns. manzanita (*Arctostaphylos gabilanensis)*	List 1B.2	None	None	Maritime chaparral, coastal scrub, coastal dunes	Not observed. Project area does not provide suitable habitat
Hooker's manzanita (*Arctostaphylos hookeri ssp. hookeri)*	List 1B.2	None	None	Closed-cone coniferous forest, maritime chaparral, coastal scrub	Recorded from Ft. Ord Not observed. Project area does not provide suitable habitat
Toro manzanita (*Arctostaphylos montereyensis)*	List 1B.2	None	None	Chaparral, coastal scrub	Recorded from Ft. Ord Not observed. Project area does not provide suitable habitat
Pajaro manzanita (*Arctostaphylos pajaroensis)*	List 1B.1	None	None	Closed-cone coniferous forest, maritime chaparral, coastal scrub, coastal dunes	Recorded from Prunedale Area Not observed. Project area does not provide suitable habitat
Sandmat manzanita (*Arctostaphylos pumila)*	List 1B.2	None	None	Maritime chaparral, coastal scrub, coastal dunes	Recorded from Ft. Ord area Not observed. Project area does not provide suitable habitat
Alkali milk-vetch (*Astragalus tener var. tener)*	List 1B.2	None	None	Alkali wetlands	Historic occurrence around project area; other occurrences from Hollister (San Benito County); herbarium collections from 1889 Potentially suitable habitat located east of project area.
Pink Johnny -nip (*Castilleja ambigua var. insulata)*	List 1B.1	None	None	Coastal scrub; coastal prairie.	Big Sur, South Monterey Project area does not provide suitable habitat
Congdon's tarplant (*Centromadia parryi ssp. congdonii)*	List 1B.1	None	None	Annual grasslands, often seasonally wet or with wet clays.	Known record near Project area along Natividad Creek area and other areas in greater project vicinity. Observed in grassland east of project area.
Monterey spineflower *(Chorizanthe pungens var. pungens)*	List 1B.2	None	Threatened	Coastal dunes, chaparral, coastal scrub (in loose sandy soils)	Recorded from Ft. Ord, Marina and Seaside Areas Project area does not provide suitable habitat
Seaside bird's beak	List 1B.1	Endangered	None	Closed cone coniferous	Recorded from sand hills of Seaside at Ft. Ord

Table 2. List of Special Status Plant Species Evaluated as to their Potential to Occur in the Vicinity of the East Laurel Drive Sidewalk Project Area, July 2018

Species	CNPS	State Status	Federal Status	Habitat Type	Occurrence in Vicinity by CNDDB? Likely Occurrence on Site?
(*Cordylanthus rigidus littoralis)*				forest, chaparral, cismontane woodland, coastal scrub/dunes	Project area does not provide suitable habitat
Hutchinson's larkspur *(Delphinium hutchinsoniae*)	List 1B.2	None	None	Cismontane woodland, coastal scrub	Recorded from Spreckels area Project area does not provide suitable habitat
Umbrella larkspur *(Delphinium umbraculorum*)	List 1B.3	None	None	Cismontane woodland, coastal scrub	Recorded from Big Sur, Chualar, Spreckels Project area does not provide suitable habitat
Eastwoods goldenbush *(Ericameria fasciculate)*	List 1B.1	None	None	Closed-cone coniferous forest, maritime chaparral, coastal scrub, coastal dunes	Recorded from Seaside, Ft. Ord, Marina and Carmel Valley areas Project area does not provide suitable habitat
Pinnacles buckwheat *(Eriogonum nortonii)*	List 1B3	None	None	Closed-cone coniferous forest, maritime chaparral, coastal scrub, coastal dunes	Recorded from Big Sur, Hollister, Fremont Peak Project area does not provide suitable habitat
Sand-loving wallflower *(Erysimum ammophilum)*	List 1B.2	None	Species of Concern	Maritime chaparral, coastal dunes, coastal scrub	Recorded from south of Ft. Ord, south of Marina along Highway 1 and E of Reservation Road, Marina State Beach Project area does not provide suitable habitat
San Joaquin spearscale *(Extriplex joaquinea*)	List 1B.2	None	None	Washes, riparian scrub	Known from Hollister area Project area does not provide suitable habitat
Fragrant fritillary (*Fritillaria liliacea)*	List 1B.2	None	None	Grasslands	Recorded from south of Aromas No suitable habitat present
Monterey gilia *(Gilia tenuiflora ssp. arenaria)*	List 1B.2	Threatened	Endangered	Coastal dunes, coastal scrub, maritime chaparral	Recorded from Marina State Beach, Ft. Ord, E of Del Monte and Reservation Rd., NW of Hwy 1and Reservation Rd., Project area does not provide suitable habitat
Santa Cruz tarplant *(Holocarpha macradenia)*	List 1B.1	Endangered	Threatened	Grassland	Known form northern Monterey County, off Elkhorn Road Project area does not provide suitable habitat.
Kellogg's horkelia (*Horkelia cuneata ssp. sericea)*	List 1B.1	None	Species of Concern	Closed cone coniferous forests, chaparral, coastal scrub, old dunes	Recorded from 1 mi. N of Marina (1940) and Ft. Ord S of Marina No suitable habitat within Project area
Contra Costa goldfields *(Lasthenia conjugens)*	List 1B.1	None	Endangered	Mesic grassland	Known form Ft. Ord, southwest of Salinas No suitable habitat within Project area; marginally suitable habitat east of site.

Table 2. List of Special Status Plant Species Evaluated as to their Potential to Occur in the Vicinity of the East Laurel Drive Sidewalk Project Area, July 2018

Species	CNPS	State Status	Federal Status	Habitat Type	Occurrence in Vicinity by CNDDB? Likely Occurrence on Site?
Legenere *(Legenere limosa)*	List 1B.1	None	Endangered	Edges of ponds	Known form Ft. Ord, Butterfly Valley No suitable habitat within Project area; marginally suitable habitat along Natividad Creek pond.
Indian Valley bush mallow (*Malacothamnus aboriginum*)	List 1B.2	None	None	Chaparral, scrub	Recorded from Gonzales, east of Soledad Project area does not provide suitable habitat
Carmel Valley bush mallow (*Malacothamnus palmeri var. involucratus*)	List 1B.2	None	None	Chaparral, scrub	Recorded from Jolon, Ft. Hunter Liggett Project area does not provide suitable habitat
Santa Lucia bush mallow (*Malacothamnus palmeri var. palmeri*)	List 1B.2	None	None	Chaparral, scrub	Recorded from Carmel Project area does not provide suitable habitat
Oregon meconella *(Meconella oregana)*	List 1B.1	None	None	Coastal prairie and coastal scrub	Recorded from Spreckels area No suitable habitat within Project area
Marsh microseris *(Microseris paludosa)*	List 1B.2	None	None	Mesic grassland	Recorded from Seaside area No suitable habitat within Project area; marginally suitable habitat east of site.
Northern curly-leaved monardella (*Monardella sinuata ssp. nigrescens*)	List 1B.2	None	None	Dunes	Recorded from east of Monterey Airport Project area does not provide suitable habitat
Yadon's rein orchid (*Piperia yadonii*)	List 1B.1	None	Endangered	Closed cone coniferous forests, chaparral, coastal bluff scrub	Recorded from south of Marina (Ft. Ord), Marina, Prunedale Project area does not provide suitable habitat
Choris' popcorn flower (*Plagiobothrys chorisianus var. chorisianus*)	List 1B.2	None	None	Mesic grasslands	Recorded from Ft. Ord, Moro Cojo Slough, Dolan Road area Project area does not provide suitable habitat
San Francisco popcorn flower (*Plagiobothrys diffusus*)	List 1B.1	Endangered	None	Mesic grasslands	Project area does not provide suitable habitat
Pine rose (*Rosa pinetorum*)	List 1B.2	None	None	Scrub and woodlands	Recorded from Pacific grove, Veterans Memorial Park, Pt. Lobos Project area does not provide suitable habitat
Santa Cruz microseris (*Stebbinsoseris decipiens*)	List 1B.2	None	None	Mesic grasslands; coastal prairie	Recorded from Laureles Grade Road, Camp Roberts, Hwy 68/218 area

Table 2. List of Special Status Plant Species Evaluated as to their Potential to Occur in the Vicinity of the East Laurel Drive Sidewalk Project Area, July 2018

Species	CNPS	State Status	Federal Status	Habitat Type	Occurrence in Vicinity by CNDDB? Likely Occurrence on Site?
					Project area does not provide suitable habitat
Santa Cruz clover *(Trifolium buckwestiorum)*	List 1B.1	None	None	Mesic grassland	Recorded from Laguna Seca, Tarpy Flats and Ft. Ord No suitable habitat within Project area; marginally suitable habitat east of site.
Saline clover (*Trifolium. hydrophilum)*	List 1B.2	None	None	Alkali wetlands	Historic occurrence near Moss Landing; other occurrences from Soda Lake (Santa Cruz County) and Hwy 25 (San Benito County) No suitable habitat within Project area; marginally suitable habitat east of site.

CNPS Status:

List 1B: These plants (predominately endemic) are rare through their range and are currently vulnerable or have a high potential for vulnerability due to limited or threatened habitat, few individuals per population, or a limited number of populations. List 1B plants meet the definitions of Section 1901, Chapter 10 of the CDFG Code. **List 4:** Plants of limited distribution; a watch list.

4.4 Special Status Animal Species

Special status wildlife species include those listed, proposed or candidate species by the Federal or the State resource agencies as well as those identified as State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act. Special status wildlife species were evaluated for their potential presence in the project area as described in Table 3 below.

Table 3. Special Status Wildlife Species and Their Predicted Occurrence within the Vicinity of the East Laurel Drive Pedestrian Improvement Project Area, July 2018

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Amphibians			
California tiger salamander *Ambystoma californiense*	FT, ST	Ponds for breeding, adjacent grasslands with burrows for upland	None, compacted soils in grassland portions of the site lack burrows and are unsuitable for upland refugia; no breeding habitat within project site. Closest known record 2 mi NE, and genetic studies shows all CTS in this area are non-natives and hybrids.
Foothill yellow-legged frog *Rana boylii*	CSC	Perennial rivers and creeks with cobble substrate	None; no suitable habitat on site.
California red-legged frog *Rana draytonii*	FT, CSC	Riparian, marshes, estuaries and ponds.	No suitable ponded breeding habitat within site. May occasionally occur in creek for foraging or movement when water present. Closest known record 2.5 mi NE.
Reptiles			
Western pond turtle *Emys marmorata*	CSC	Creeks and ponds, grasslands for nesting.	Gabilan Creek not suitable habitat due to lack of deep pools, seasonal water. Grassland soils too compact for nesting.
Black legless lizard *Anniella pulchra nigra*	CSC	Sand dunes, sandy soils with lupines, mock heather other natives plants	None. No suitable habitat on site.
Birds			
White-tailed kite *Elanus leucurus*	FP	Nests in dense canopy riparian and oak woodlands; forages in open areas	May nest in riparian habitat along portions of Gabilan or Natividad Creek, but not likely at project site due to high human presence.
Northern harrier *Circus cyaneus*	CSC	Nests on ground in tall grasses or marshes; forages over open habitats.	No nesting habitat; grassland is periodically mowed, high human use
Western burrowing owl *Athene cunicularia hypugea*	CSC	Lives in grasslands with short vegetation and burrows	Unlikely, grassland area soils too compact and lack burrows. No known records within >5 miles
California horned lark *Eremophila alpestris actia*	CSC	Nests on ground in grasslands with short vegetation	None, grasslands mowed, high human disturbance
Mammals			
Townsend's big-eared bat *Corynorhinus townsendii*	CST	Forested habitats with caves, mines, old buildings and hollows in redwood trees as roosts	None. Site lacks suitable habitat.

[1] Key to status:

FT = Federally listed as threatened species
CST = Candidate for State listing as threatened species
CSC = California species of special concern
FP = Fully protected by State

In general, the habitats with the project site provide only marginal habitat for native wildlife species because of the relatively narrow riparian corridor, the high human use within the project site and the surrounding developments, the high volume of traffic on East Laurel Drive, and the compacted soils of the grassland. Most wildlife species expected to occur on the site are those that can tolerate high human presence in the surrounding areas. Nonetheless, the riparian corridor may provide seasonal forage and nesting habitat for neotropical migrant birds, and nesting habitat for some raptors that are able to tolerate high human presence such as red-shouldered hawk. One special status species that may occasionally occur along the creek, the California red-legged frog, is discussed in more detail below.

The California red-legged frog (CRLF) is a State Species of Special Concern and Federally listed as threatened. This species is found in quiet pools along streams, in marshes, and ponds. Red-legged frogs are closely tied to aquatic environments and favor intermittent streams which include some areas with water at least 0.7 meters deep, a largely intact emergent or shoreline vegetation, and a lack of introduced bullfrogs and non-native fishes. This species' breeding season spans January to April (Stebbins 1985). Females deposit large egg masses on submerged vegetation at or near the surface. Embryonic stages require a salinity of $\leq$4.5 parts per thousand (Jennings and Hayes 1994). They are generally found on streams having a small drainage area and low gradient (Hayes and Jennings 1988). Recent studies have shown that although only a small percentage of red-legged frogs from a pond population disperse, they are capable of moving distances of up to 2 miles (Bulger 1999). The red-legged frog occurs west of the Sierra Nevada-Cascade crest and in the Coast Ranges along the entire length of the state. Much of its habitat has undergone significant alterations in recent years, leading to extirpation of many populations. Other factors contributing to its decline include its former exploitation as food, water pollution, and predation and competition by the introduced bullfrog and green sunfish (Moyle 1973, Hayes and Jennings 1988).

The habitat for California red-legged frogs along these portions of Gabilan and Natividad Creeks is poor, and the impoundment (detention pond) of Natividad Creek is manipulated for flood control. There are no off-channel slow-moving or ponded areas present in this portion of Gabilan Creek for breeding. It is unknown if fish inhabit the Natividad Creek detention pond, but many surveys have documented large populations of bullfrogs along the creek. The closest documented occurrence of CLRF to the project site is approximately 2.5 miles northeast in a tributary to Natividad Creek (CDFW 2015). The red-legged frog is usually absent from urbanized creeks and waterways. However, this frog is capable of relatively long-distance movements, and may occasionally traverse this portion of Gabilan Creek or find summer habitat within the Natividad Creek detention pond when water is present. However, the red-legged frog is unlikely to occur within most of the project site and the proposed project does not include any work within Gabilan Creek.

5.0 IMPACT ANALYSIS

5.1 Significance Thresholds

The thresholds of significance presented in the California Environmental Quality Act (CEQA) were used for this analysis. For this analysis, significant impacts may occur if the project would substantially affect, either directly or through habitat modifications:

- A species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2. Analysis

Development of the East Laurel Drive Sidewalk Project will have few impacts on native habitats. There will be no impact to Waters of the U.S. or Waters of the State, as work will occur outside of creeks and wetlands. Trail construction will require trimming of vegetation along the outer edge of willow riparian along a section of East Laurel Drive, where vegetation grows outward to the existing roadway and short section of trail along Constitution Boulevard where a willow is amid landscape trees; however, this will be a temporary impact.

Impacts to nesting birds could be significant if construction occurs during the bird breeding season; however, measures to prevent impacts to breeding birds are identified. The project's close proximity to a colony of Congdon's tarplant (i.e., within 1000 feet) is significant, yet measures to prevent inadvertent impacts to this species are identified. A summary of significant impacts is presented in Table 4.

Impacts to the coyote brush scrub, non-native grassland, and landscape trees was not deemed to be a significant impact to botanical resources as these habitats are common and were found to not support special status species. However, impacts to breeding birds in these habitats would be significant.

Table 4. Summary of Significant Biological Impacts

Biological Resource	Impact	Permitting	Action Mitigation for Impacts	Monitoring
Riparian Woodland	Trimming/limbing of riparian vegetation along portions of sidewalk along East Laurel Drive and Constitution Boulevard to allow for construction.	Within City of Salinas creek setback area	Avoid or minimize impact to greatest extent; limb only as needed to construction access; allow vegetation to re-grow to edge of sidewalk; see Measure BIO-1	None

Table 4. Summary of Significant Biological Impacts

Biological Resource	Impact	Permitting	Action Mitigation for Impacts	Monitoring
Nesting Birds	Impact to nesting birds if active nests are present during construction	-	Conduct vegetation removal Aug 1 to Feb 1 to avoid nesting birds; if not feasible conduct pre-construction survey; see Measure BIO-2	None
Special Status Plant Species	Impact to Congdon's tarplant adjacent to project area	CDFW	Install limit of work construction fencing to prevent inadvertent impact to occupied area; see Measure BIO-3	None

Impacts to Riparian Woodland

The sidewalk construction will be in close proximity to the Natividad Creek detention pond, Gabilan Creek and an unnamed drainage swale; however, construction will not impact these resources. Similarly, sidewalk construction will be in close proximity to the riparian woodland along East Laurel Drive and Constitution Boulevard; however, actions will be limited to limbing for construction clearance and will be temporary. Most of the project is located within the City's 100-foot creek setback area(s).

Recommended Measure BIO-1. ***Implement measures to protect existing riparian woodland from inadvertent impacts during sidewalk construction.***

- Temporary construction fencing should be placed at the edge of the construction area; such fencing shall be placed outside the dripline of the riparian woodland, wherever feasible. This fencing should remain in-place until all project construction is complete.
- Erosion control measures/construction best management practices (BMP's) shall be implemented during construction to prevent any inadvertent impacts to Gabilan Creek, Natividad Creek pond, the drainage swale near Veterans Memorial Park, and the creek along Constitution Boulevard. Such measures shall include use of silt fencing, straw wattles and seeding/revegetation of disturbed areas prior to the onset of the winter rainy season.
- Minimize limbing and trimming of riparian vegetation to only that needed for construction clearance. Allow vegetation to re-grow up to edge of sidewalk.

Impacts to Breeding Birds

Construction activities have the potential to cause direct and indirect impacts to nesting migratory birds and raptors within the riparian corridor of Gabilan Creek and Natividad Creek detention pond, and trimming of trees along Constitution Blvd. Removal of vegetation, removal of tree limbs, and increased noise and dust from construction activities has the potential to indirectly impact nesting birds potentially resulting in the abandonment of nests by parent birds, and death to eggs or nestlings. This potential impact is considered significant.

Recommended Measure BIO-2. ***Avoid direct and indirect impacts to breeding birds.*** To avoid impacts to migratory birds and raptors that may be present in the project area, it is recommended that grading and all ground disturbances be scheduled to occur outside the primary bird-breeding season on the Central California Coast. To avoid impacts to breeding birds at this site, it is recommended that ground disturbance (including

stripping, vegetation removal, grading, and excavation) be scheduled for the period August 1 to February 1 of any given year.

- If this schedule is not practical, then no more than 14 days prior to construction, a qualified biologist shall survey the development areas and nearby vicinity for nesting birds, including raptors and migrants. If nesting birds are observed within the development area, construction shall be postponed until the biologist confirms that all young have fledged. If birds are nesting nearby and the biologist determines the construction may cause nest failure, the biologist shall recommend an appropriate buffer area around the nest where no construction will take place until the biologist confirms all young have fledged.

Impacts to Congdon's Tarplant

The project is located in close proximity to a colony of Congdon's tarplant, a special status plant species. Protective measures during construction are identified to avoid impacts to this species.

Recommended Measure BIO-3. ***Implement measures to protect existing Congdon's Tarplant from inadvertent impacts during trail and sidewalk construction.***

Temporary construction fencing should be placed at the edge of the construction area; such that no work activity occurs in the flat area adjacent to Natividad Creek pond. This fencing should remain in-place until all project construction is complete.

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Appendix C: Cultural Resource Investigation and Tribal Consultation Correspondence

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July 30, 2018

Mr. Alex Jewell
Kimley-Horn
2720 Gateway Oaks Drive, Suite 310
Sacramento, CA 95833

Re: East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) Project in Salinas, Monterey County, CA (PL#3417-01)

Dear Mr. Jewell:

This letter report presents the results of a cultural resources investigation conducted by Pacific Legacy, Inc. for the proposed East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) Project (the Project). Pacific Legacy was retained by Kimley-Horn and Associates, Inc., acting on behalf of the City of Salinas (City) to conduct an archaeological survey for the Project. The investigation compliments the first phase of the project. The Phase I cultural resources investigation was completed in 2015. The City of Salinas proposes to improve East Laurel Drive from North Sanborn Road to Constitution Boulevard and on Constitution Boulevard between East Laurel Drive and 350 feet west of Twin Creeks Drive within the City of Salinas, Monterey County, California (the Project Area) (*see* Attachment A, Figure 1). All tasks for the Project were performed under contract number 3417-01 between Pacific Legacy, Inc. and Kimley-Horn. This investigation was conducted in compliance with the California Environmental Quality Act (CEQA) but also complies with historic preservation regulations, policies, and statutes, under Section 106 of the National Historic Preservation Act (NHPA), should federal permitting be required. Its purpose was to identify cultural resources that may be adversely impacted by ground disturbing activities associated with the Project.

Results Summary
On behalf of the City of Salinas, Pacific Legacy completed an archaeological assessment for the Phase II Project Area. It included archival and record searches, a request for a search of the Sacred Lands Inventory maintained by the Native American Heritage Commission (NAHC) and a list of potential Native American stakeholders, and a pedestrian inventory survey for the proposed East Laurel Drive Sidewalk and Natividad Trail Improvements Phase II Project locations.

The NAHC review of the Sacred Lands Inventory failed to indicate the presence of cultural resources in the immediate Project Area. Contact with potential Native American stakeholders has been initiated based on the list of names provided by the NAHC. The results of those contact efforts will be forwarded to the City of Salinas.

The archival and records searches revealed that no known cultural resources had been previously recorded within 0.25 mi. of the Project Area. A pedestrian archaeological survey of the Project Area was conducted by Pacific Legacy personnel on June 12, 2018. No prehistoric or

historic period materials were observed, though surface visibility was limited in some areas by City landscaping and infrastructural or commercial and residential development. Based on the results of the pedestrian survey, the archival and records searches, and contact with the NAHC, and the limited extents of the proposed ground disturbing activities associated with the Project, we anticipate that further study or cultural resource monitoring for the Project will not be necessary. Should ground-disturbing activities result in the inadvertent discovery of buried cultural materials, however, work in the immediate vicinity of the find should cease and a qualified archaeologist should be contacted immediately.

Project Description

The City of Salinas proposes Phase II of the East Laurel Drive Project. The Phase II portion of the project includes East Laurel Drive from North Sanborn Road to Constitution Boulevard and on Constitution Boulevard between East Laurel Drive and 350 feet west of Twin Creeks Drive. Phase I of the East Laurel Drive Project was completed in 2015. The purpose of the proposed Phase II project is to close the sidewalk gap within the project area and provide night time lighting along the roadway and the trail around the Natividad Creek detention pond. The proposed project is needed to provide safe passage of pedestrians and cyclists from the residential neighborhoods on the east end of the project area to access the City's park, soccer fields, medical facilities, and other County facilities at the East Laurel Drive/Constitution Boulevard intersection (*see* Attachment B).

Phase II improvements would include:

East Laurel Drive (north side):

- Install new six-foot sidewalk with curb and gutter with a maximum depth of 2.5 feet:
  - North Sanborn Road to St. Edwards Drive
  - End of proposed boardwalk to existing trailhead and access driveway (a total of 40 feet)
  - Ranch View Lane to Constitution Boulevard
- Install six-foot boardwalk, beginning at St. Edwards Drive and extending roughly 2,100 feet west, with a maximum depth of 22 feet.
- Rehabilitate the existing trailhead and concrete sidewalk and provide ADA-compliant transition from the existing trailhead and access driveway, west to Ranch View Lane.
- Install pedestrian crosswalk and ADA-complaint ramp at Ranch View Lane
- Drainage improvements at structure between Natividad Creek Detention Basin and existing trail.

- East side of Constitution Boulevard:
  - Install new six-foot sidewalk with curb and gutter with a maximum depth of 2.5 feet from East Laurel Drive to 350 feet west of Twin Creeks Drive.
- Modify the traffic signal at East Laurel Drive and Constitution Boulevard and provide ADA-compliant ramps and signal warnings.
  - ADA-compliant ramps would have a maximum depth of 2.5 feet
  - Traffic signal modifications would have a maximum depth of 6 feet

- Install street lighting with a foundation depth of 3 feet within the median, south side, or along the north side of East Laurel Drive from North Sanborn Road to Natividad Road.
- Install solar LED pedestrian scale lighting with a foundation depth of 6 feet:
    - on the trail around Natividad Creek detention basin from East Laurel Drive to the connection with Garner Avenue and Gee Street.
    - on the trail at Monterey County Vietnam Veterans Memorial Park from East Laurel Drive north to the Gabilan Creek pedestrian bridge.

Figure 1 map (*see* Attachment A) depicts the Project Area on the Salinas (1984) and Natividad (1984), California 7.5′ USGS Quadrangles. It is located in the Sausal City Civil Colonies Land Grant.

Archival and Records Search

Archival and records searches encompassing a portion of the current Project Area were previously conducted by Pacific Legacy (PL) personnel for Phase I of the East Laurel Drive Project (PL#3116-01) on December 1, 2015 under File No. 15-0811.The search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University. Those searches partially encompassed the current Project Area and a surrounding 0.25 mi. buffer radius. A supplemental archival and records search was conducted by CHRIS staff on June 5, 2018, under File No. 17-2922, to collect additional data on the expanded and amended Project Area for the current proposed East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) Project. The searches included a review of

- *The Historic Properties Directory* (California Office of Historic Preservation 2013);
- *The California Inventory of Historic Resources* (State of California 1976);
- *California Historical Landmarks (*California Office of Historic Preservation 1996);
- *California Points of Historical Interest* listing May 1992 (State of California 1992); and
- The National Register of Historic Places (NRHP) (*Directory of Determinations of Eligibility*, California Office of Historic Preservation, Volumes I and II, 1990; Office of Historic Preservation Computer Listing 1990 and updates).
- Historic maps and documents concerning the general area on file at the Berkeley office of Pacific Legacy along with digital archives of previously conducted studies and known cultural resources within the City of Salinas.

Archival and records searches revealed that prior to the East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) Project, the Project Area had been subject to five previous cultural resource studies that resulted in negative findings and include S-38928 by Basin Research Associates, Inc. (Busby 2009) which covers a large portion of the current Project Area; S-26571 for the Department of Transportation (McLean 2001) which covers portions of the two trail segments; S-6456 by Archaeological Consulting (Haversat and Breschini 1984) which covers the trail around Natividad Creek Detention Basin and the southern end of East Laurel Drive; and both S-5558 by Archaeological Resource Service (Roop 1978) and S-8022 by Archaeological Consulting (Breschini and Haversat 1986) that cross only a small portion of the Project Area at the north end of the Constitution Boulevard survey corridor. Six other cultural

resource studies with negative findings have been conducted within 0.25 m. of the Project Area and are listed in Table 1 below.

Archival and records searches further revealed that no known archaeological sites had been recorded within the Project Area or within 0.25 mi. of the Project Area. Three historic period built environment buildings and/or building complexes appeared in the Historic Property Data File for Monterey County. The building complex listed as 639 Sanborn Road or the "Moore Lumber Company" is comprised of 18 buildings listed as Buildings A-R. The building at 651 Sanborn Road or the "Tombleson Incorporated Office" is comprised of one building. The buildings at 655 Sanborn Road or the "Porras Restaurant" is comprised of two buildings that include a restaurant and office. All of the historic period built environment resources are listed as status code 6Y, or "Determined ineligible for NR [National Register] by consensus through Section 106 process —Not evaluated for CR [California Register] or Local listing." Two properties are located roughly a half block southwest of the Project Area and, the third building, located at 955 Sanborn Road is 1.5 miles south of the Project Area. Like the buildings located along North Sanborn Street itself (identified as Sanborn Road in the data file), they will not be impacted by Project activities.

Table 1. Prior Studies within 0.25 Miles of the Project Area.

Study Number	Author	Date	Type	Results in Project Area	Resources Recorded
S-05558	Roop	1978	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-20587	Price	1998	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-22767	Doane and Haversat	2000	Archival Research	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-23892	Losee	2001	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-29912	Historic Resource Associates	2005	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-35434	Hatoff	2005	Archaeological Field Study and SHPO Consultation	Negative in Project Area	None in or within 0.25 Miles of the Project Area
	O'Connell	2007			
S-06456	Haversat	1984	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-08022	Hampson	1986	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-26571	McLean	2000	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
S-38928	Busby	2009	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area
PLI-3116-01	Holm	2015	Archaeological Field Study	Negative in Project Area	None in or within 0.25 Miles of the Project Area

Native American Contact

Native American contact specific to the current Project was initiated on June 1, 2018 with a letter to the NAHC requesting a review of the Sacred Lands Inventory. A response to this request was received on June 4, 2018. This review failed to indicate the presence of cultural resources in the immediate Project Area. Pacific Legacy has also requested that the NAHC provide an updated

list of Native American individuals and tribal representatives for Monterey County that might have knowledge of unreported resources or areas of concern within the Project vicinity.

The NAHC provided a list of five tribal groups or individuals who may have knowledge of cultural resources in the APE or may have an interest in the Project. Letters were sent to each of the five listed individuals on June 12, 2018 (*see* Table 2). The letters provided a brief description of the current status of the Project and requested input on cultural resources in the APE (*see* Attachment C.

Table 2. Summary of Native American Consultation

Native American Contact Group	Native American Contact Name	Date of Initial Letter	Date(s) Reply Received	Comment
Coastanoan Rumsen Carmel Tribe	Tony Cerda, Chairperson 244 E. 1st Street Pomona, CA 91766	6/12/2018	7/13/2018	No response to date.
Amah Mutsun Tribal Band	Valentin Lopez, Chairperson PO Box 5272 Galt, CA 95632	6/12/2018	7/13/2018	No response to date.
Ohlone/Costanoan-Esselen Nation	Louise Miranda-Ramirez, Chairperson PO Box 1301 Monterey, CA 93942	6/12/2018	7/6/2018	Ms. Ramirez sent a letter and map requesting consultation with lead agency.
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson PO Box 28 Hollister, CA 95024	6/12/2018	7/13/2018	Ms. Sayer indicated that she is confident with Pacific Legacy's assessments.
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irenne Zwierlein, Chairperson 789 Canada Road Woodside, CA 94062	6/12/2018	7/13/2018	Ms. Zwierlein requested that the construction crew has sensitivity training to know when to call the archaeologists.

Archaeological Survey

A pedestrian archaeological survey of the Project Area was conducted by Pacific Legacy archaeologist Mary O'Neill, BA, on June 12, 2018. The purpose of the survey was to identify cultural resources that may be adversely impacted by ground disturbing activities associated with the Project.

The areas surveyed for this Project include both the north and south sides and the median of East Laurel Drive from Constitution Boulevard to Natividad Drive; the east side of Constitution Boulevard from East Laurel Drive to 350 feet west of Twin Creeks Drive; a segment of trail at Monterey County Vietnam Veterans Memorial Park from East Laurel Drive north to the Gabilan Creek pedestrian bridge; the trail around Natividad Creek detention basin from East Laurel Drive to the connection with Garner Avenue and Gee Street, and the north side of East Laurel Drive between the two trails (*see* Attachment B).

That portion of the current Project Area that was previously surveyed in 2015 by Pacific Legacy archaeologists for the East Laurel Drive Project (3116-01) include both sides of East Laurel Drive between North Sanborn Road and Constitution Boulevard (including the median) and on Constitution Boulevard from East Laurel Drive to an existing soccer field driveway (Holm 2015).

East Laurel Drive between Constitution Boulevard and Natividad Drive consists of a paved asphalt two-lane road with a single landscaped median that is bordered on the north side with concrete sidewalks and grass and some areas of overgrown weeds and the south side predominantly by earthen embankments with gravel and agricultural fields. Along the north side of the East Laurel Drive survey corridor, areas of exposed soil (brown to dark grayish brown, sandy loam to loam, 10YR 4/2 to 10 YR 4/3) were inspected in undeveloped areas or minimally developed areas (at the north end) that offered full (100%) ground surface visibility. Other areas, such as those subsumed by grass or concrete sidewalks, offered little or no (0-50%) ground surface visibility. Along the southern side of East Laurel Drive, large areas of exposed soil (yellowish brown sandy loam, 10YR 5/4) were also observed on the embankments and access road for the agricultural fields that offered full (100%) ground surface visibility. No cultural constituents were observed.

Constitution Boulevard consists of a paved asphalt two-lane road with a single landscaped median. The survey corridor, on the east side of Constitution Boulevard, is comprised of landscaped areas that include ornamental trees, shrubs, ivy, overgrown weeds with foxtails, and a riparian corridor (with willows) within and adjacent to an earthen ditch that parallels the survey corridor. No sidewalks are present although earthen footpaths persist. Areas of exposed soil (brown to dark grayish brown, sandy loam to loam, 10YR 4/2 to 10 YR 4/3) were inspected along the earthen footpath created by pedestrian foot-traffic; in between shrubbery and other vegetation; in areas with a sparse coverage of weeds; rodent burrows; and at the edge of the ditch in areas that offered full (100%) ground surface visibility. Other areas, such as those subsumed by shrubbery or ivy, offered little or no (0-10%) ground surface visibility. In some areas, on both sides of the ditch and within the ditch is debris from homeless encampments which includes cardboard, shopping carts, clothing, sleeping paraphernalia, discarded food containers, plastic bags, paper debris, plastic bottles, and other miscellaneous debris. No cultural constituents were observed.

Both sides of the segment of paved trail, at Monterey County Vietnam Veterans Memorial Park, from East Laurel Drive north to the Gabilan Creek pedestrian bridge were surveyed. A riparian corridor (drop-off) is to the north side of the trail. Dried grass, weeds, and a few shrubs are present on both sides of the trail with areas of exposed soil (dark grayish brown, sandy loam to loam, 10 YR 4/3) present. All areas with exposed soils were inspected. Ground surface visibility ranged from 5-20%. No cultural constituents were observed.

Both sides of the paved trail, around Natividad Creek detention basin from East Laurel Drive to the connection with Garner Avenue and Gee Street were surveyed. Dried grass, foxtails, and a few shrubs are present on both sides of the trail with patches of exposed soil (dark grayish brown, sandy loam to loam, 10 YR 4/3) and rodent burrows were present. All areas with exposed soils were inspected. Ground surface visibility ranged from 0-20%. No cultural constituents were observed.

Survey was conducted along the north side of East Laurel Drive, in the vicinity of the Natividad Creek Detention Basin and the Monterey County Vietnam Veterans Memorial Park, between the two trails. No sidewalks are present, although an earthen footpath is present as well as

overgrown weeds and vegetation. All areas with exposed soil (dark grayish brown, sandy loam to loam, 10 YR 4/3) were inspected. Ground surface visibility was generally 100%. No cultural constituents were observed.

No prehistoric or historic period cultural materials were observed during a surface examination of the Project Area, though areas of exposed soil at embankments, the base of vegetation and shrubbery, burrows, along edges of the trails, at the edge of the ditch, grassy areas, and earthen footpaths were carefully inspected for signs of midden, shell, charcoal, lithic material, etc. (*see* Attachment B). The residential neighborhoods at the east end of the Project Area appear to have been built post the 1960s, however none will be impacted by proposed ground disturbing activities associated with the Project.

Discussion of Results and Recommendations

Archival and records searches revealed that five cultural resource studies had been previously conducted within the Project Area. No known archaeological sites or historic buildings or structures lie within the Project Area. Reviews by the NAHC failed to identify any known cultural resources listed on the Sacred Lands Inventory within the Project Area. An updated contact list of potential Native American stakeholders identified by the NAHC as having knowledge of or concerns about the Project vicinity was provided by the NAHC and contact with potential Native American stakeholders has been initiated based on this list. Some responses have been received from potential stakeholders. The results of those contact efforts will be forwarded to the City of Salinas.

The recently conducted pedestrian archaeological survey of the Project Area, as well as the previous pedestrian inventory conducted by Pacific Legacy in 2015 of a portion of the current Project Area, revealed no signs of prehistoric or historic period cultural materials. Surface visibility was highly variable within the areas examined, but offered sufficient exposure to reveal substantial cultural deposits if present. Based on the negative findings from archival and records searches, searches of the Sacred Lands inventory, and the pedestrian survey, cultural resource monitoring of proposed ground disturbing activates within the Project Area is not advocated. Ground disturbing activities will be confined to the locations previously discussed along the proposed East Laurel Drive Sidewalk and Natividad Trail Improvements Project locations. The Project Area has been subject to previous heavy development associated with residential development and City infrastructure and it is unlikely that limited excavations will result in the discovery or disturbance of intact subsurface cultural remains.

Ground disturbing activities have the potential to reveal buried archaeological deposits not visible during surface inspection. Prior to initiating ground disturbing activities within the Project Area, construction personnel should be alerted to the possibility of encountering buried prehistoric or historic period cultural remains. Personnel should be advised that upon discovery of buried archaeological deposits, work in the immediate vicinity of the find should cease and a qualified archaeologist should be contacted immediately. Once the find has been identified, plans for the treatment, evaluation, and mitigation of impacts to the find will need to be developed if it is found to be NRHP and/or CRHR eligible. Potential cultural materials include prehistoric and historic period artifacts and remains. These may consist of, but are not limited to:

- Historic artifacts, such as glass bottles and fragments, tin cans, nails, ceramic and pottery sherds, and other metal objects;
- Historic period features such as privies, wells, cellars, foundations or other structural remains (bricks, concrete, or other building materials);
- Flaked-stone artifacts and debitage, consisting of obsidian, basalt, and/or chert;
- Groundstone artifacts, such as mortars, pestles, and grinding slabs;
- Dark, almost black, soil with a "greasy" texture that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire-affected rock; and,
- Human remains.

If human remains are encountered during construction, work in that area must cease and the Monterey County Coroner must be notified immediately. If the remains are determined to be Native American, the NAHC must be notified within 48 hours as required by Public Resources Code 5097. The NAHC will notify the designated Most Likely Descendant, who will in turn provide recommendations for the treatment of the remains within 24 hours.

Should you have any questions regarding this report, please contact Samantha Schell, at 510.524.3991, ext. 105.

Sincerely,

Mary M. O'Neill
Supervisor
Pacific Legacy, Inc., Bay Area Division

Attachments:
Attachment A – Project Figure (Figure 1)
Attachment B – Photographic Documentation
Attachment C – Native American Documentation

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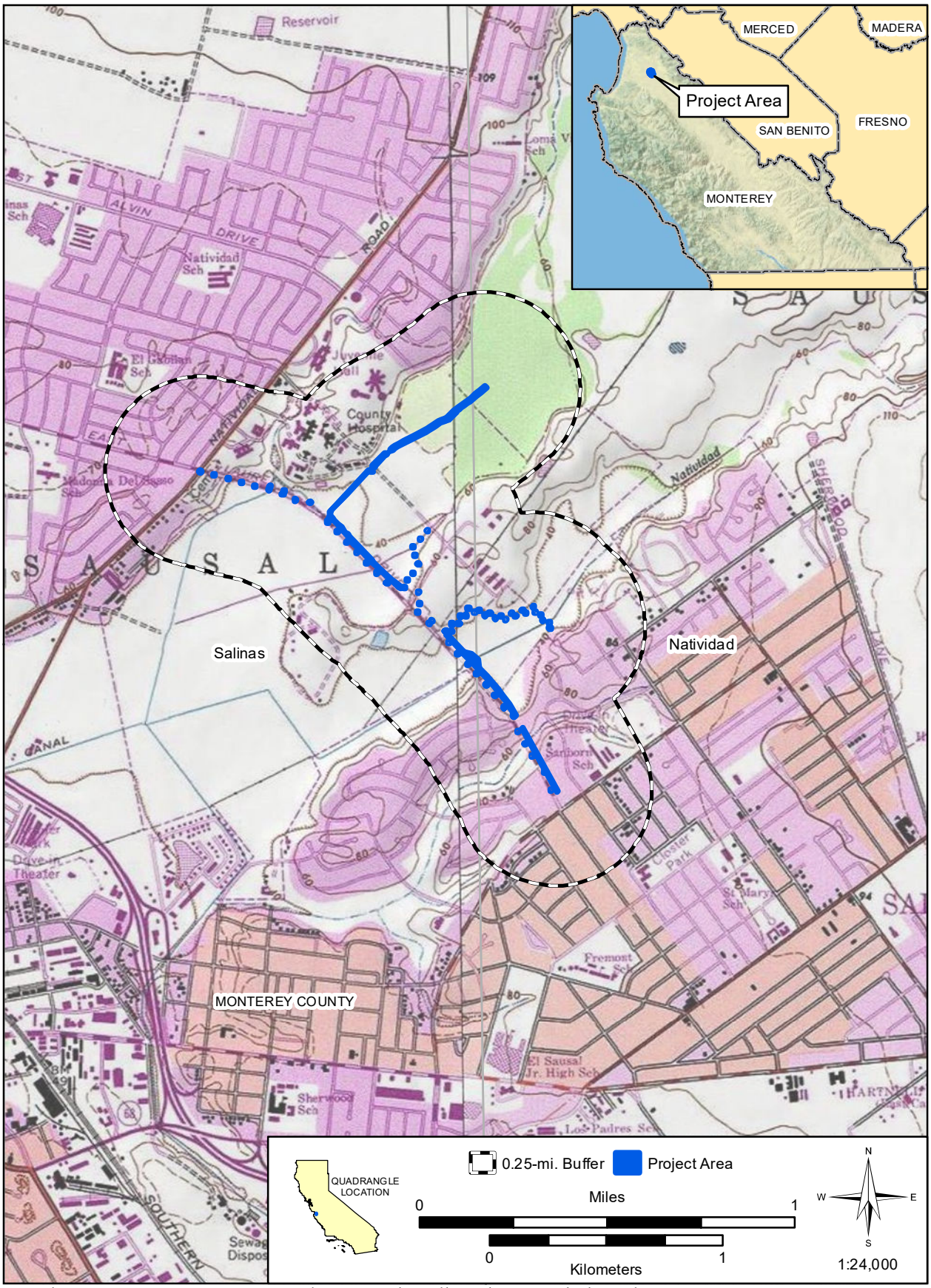
1984 Salinas 7.5′ USGS topographic map.

ATTACHMENT A: PROJECT FIGURES



Attachment A, Figure 1. East Laurel Drive Sidewalk and Natividad Trail Improvements Project Location.

ATTACHMENT B: PHOTOGRAPHIC DOCUMENTATION

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 1
Direction: Southwest
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9910) Overview of survey corridor towards East Laurel Drive.

Photograph No. 2
Direction: Southwest
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9911) Overview of portion of survey corridor from soccer field entrance, towards East Laurel Drive.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 3
Direction: Northeast
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9914) Overview of survey corridor (with ditch to right) from soccer field entrance, towards Twin Creeks Drive.

Photograph No. 4
Direction: Northeast
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9915) Overview of survey corridor with dense vegetation and ivy coverage.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 5
Direction: Southeast
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9919) Northeast end of survey corridor along Constitution Boulevard. Ditch, overgrown with foxtails, parallels the edge of the survey corridor.

Photograph No. 6
Direction: Southwest
Date: 06/12/18
Location: East side of Constitution Boulevard
Photographer: Mary O'Neill

Description:
(IMG-9921) Overview of survey corridor near northeast end of Constitution Boulevard towards East Laurel Drive.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 7
Direction: Northwest
Date: 06/12/18
Location: East Laurel Drive
Photographer:
Mary O'Neill

Description:
(IMG-9923) Overview of survey corridor (for street lighting) along both sides of East Laurel Drive and on the short section of median. View from Constitution Boulevard towards Natividad Road.

Photograph No. 8
Direction: Southeast
Date: 06/12/18
Location: East Laurel Drive
Photographer:
Mary O'Neill

Description:
(IMG-9925) Overview of survey corridor (for street lighting) along both sides of East Laurel Drive and on the median. View from Constitution Boulevard towards Sanborn Road.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 9
Direction: Southeast
Date: 06/12/18
Location: Vietnam Veterans Memorial Park
Photographer: Mary O'Neill

Description:
(IMG-9926) Overview of survey corridor along both sides of paved trail.

Photograph No. 10
Direction: Northeast
Date: 06/12/18
Location: Vietnam Veterans Memorial Park
Photographer: Mary O'Neill

Description:
(IMG-9927) Overview of survey corridor along both sides of paved trail. Riparian corridor along left side, outside survey area.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 11
Direction: Northwest
Date: 06/12/18
Location: Vietnam Veterans Memorial Park
Photographer:
Mary O'Neill

Description:
(IMG-9930) Overview of survey corridor along both sides of paved trail. View towards East Laurel Drive from memorial.

Photograph No. 12
Direction: Southeast
Date: 06/12/18
Location: East Laurel Drive
Photographer:
Mary O'Neill

Description:
(IMG-9931) Overview of portion of survey corridor along East Laurel Drive towards Sanborn Road.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 13
Direction: Southeast
Date: 06/12/18
Location: East Laurel Drive
Photographer:
Mary O'Neill

Description:
(IMG-9934) Overview of portion of survey corridor along East Laurel Drive towards Sanborn Road.

Photograph No. 14
Direction: Northeast
Date: 06/12/18
Location: Natividad Creek Detention Basin
Photographer:
Mary O'Neill

Description:
(IMG-9935) Overview of survey corridor along paved trail from East Laurel Drive to bridge at Garner Avenue and Gee Street.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 15
Direction: Northeast
Date: 06/12/18
Location: Natividad Creek Detention Basin
Photographer:
Mary O'Neill

Description:
(IMG-9936) Overview of survey corridor along paved trail from East Laurel Drive to bridge at Garner Avenue and Gee Street.

Photograph No. 16
Direction: Southeast
Date: 06/12/18
Location: Natividad Creek Detention Basin
Photographer:
Mary O'Neill

Description:
(IMG-9938) Overview of end of survey corridor (along both sides of paved trail) at bridge at Garner Avenue and Gee Street.

Attachment B: Pacific Legacy Photographic Documentation

Client: Kimley-Horn Prepared by: M. O'Neill

Photograph No. 17
Direction: East
Date: 12/03/15
Location: Natividad Creek Detention Basin
Photographer:
Mary O'Neill

Description:
(DSCO-4957) Overview of structure at Natividad Creek Detention Basin with edge of trail in the foreground; view from East Laurel Drive.

Photograph No. 18
Direction: Northwest
Date: 12/03/15
Location: Natividad Creek Detention Basin
Photographer:
Mary O'Neill

Description:
(DSCO-4958) Overview of existing trail north of East Laurel Drive, between detention basin and roadway.

ATTACHMENT C: NATIVE AMERICAN CONTACT DOCUMENTATION

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: East Laurel, Phase II

County: Monterey

USGS Quadrangle Name: Salinas - Located in un-sectioned land on Land Grant, Civil Colonies.

Township:_____ Range:_____ Section(s):_____

USGS Quadrangle Name: Natividad - Located in un-sectioned land on Land Grant, Civil Colonies.

Township:_____ Range:_____ Section(s):_____

Company/Firm/Agency: Pacific Legacy, Inc.
Street Address: 900 Modoc Street
City: Berkeley Zip: 94707

Phone: 510/524-3991 x105

Fax:_____

Email: schell@pacificlegacy.com

Project Description: The City of Salinas proposes to improve East Laurel Drive from North Sanborn Road to Constitution Boulevard and Constitution Boulevard between East Laurel Drive and 350 feet west of Twin Creek Drive.

The purpose of the proposed project is to close the sidewalk gap within the project area and provide nighttime lighting along the roadway and the trail around Natividad Creek detention pond.

Project includes installtion of new six-foot sidewalks with curb and gutter, ADA ramps, and lighting with a maximum depth of 2.5 feet.

Folder Actions | Up Unread | Select

Respond | Actions | Options | Find

From: NAHC@NAHC [NAHC@nahc.ca.gov]
To: Samantha Schell
Subject: Read: Sacred Lands File Request

Sent: Fri 6/1/2018 2:04 PM

Your message

To:
Subject: Sacred Lands File Request
Sent: Friday, June 1, 2018 5:03:51 PM (UTC-05:00) Eastern Time (US & Canada)

was read on Friday, June 1, 2018 5:03:48 PM (UTC-05:00) Eastern Time (US & Canada).

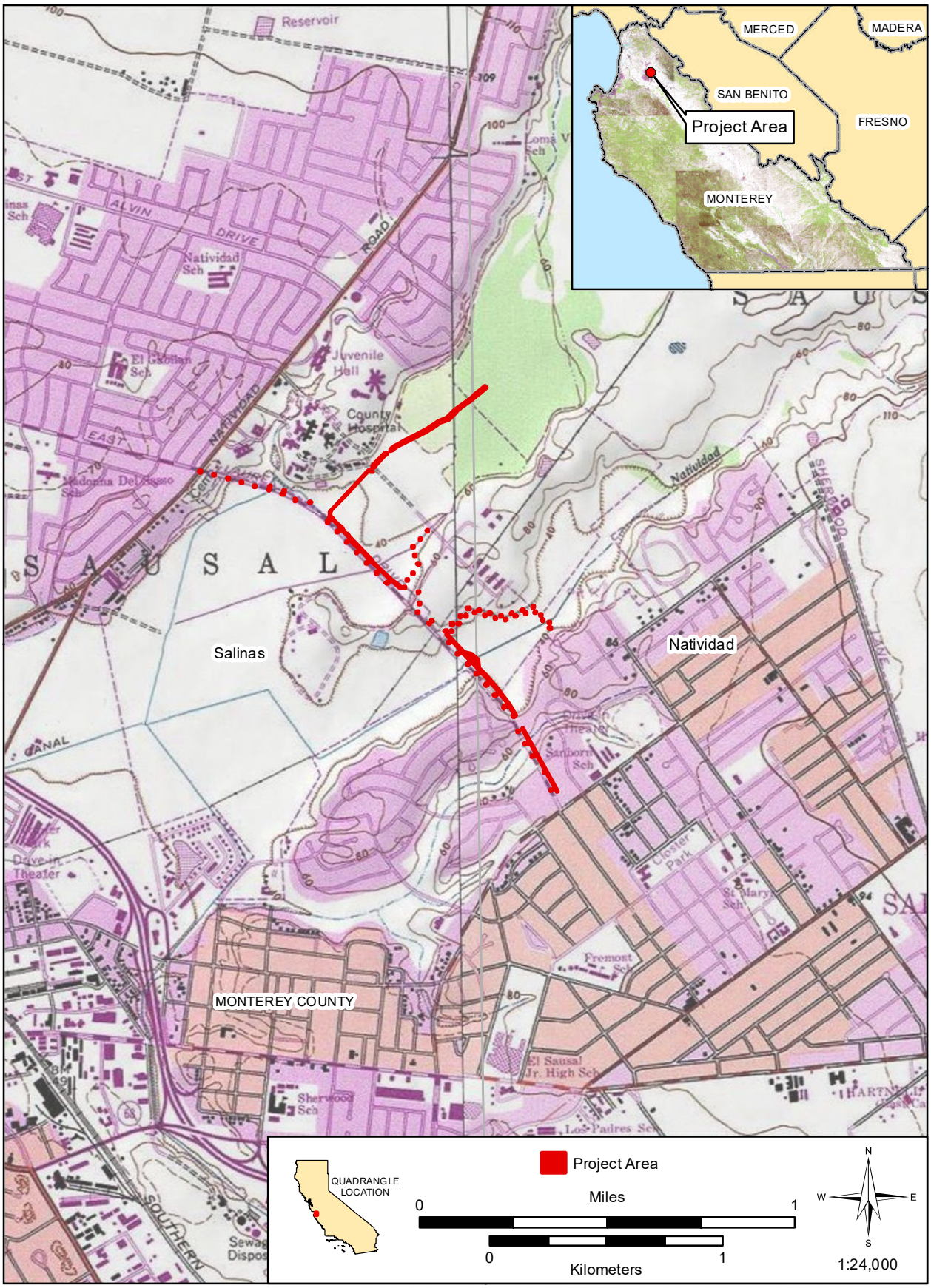


Figure 1. Salinas East Laurel Drive Project Location.

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

June 4, 2018

Samantha Schell

Pacific Legacy, Inc.

Sent by Email: schell@pacificlegacy.com

Re: East Laurel, Phase II, Monterey County

Dear Ms. Schell,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at 916-573-1033 or frank.lienert@nahc.ca.gov.

Sincerely,

Frank Lienert
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contacts
6/4/2018

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street — Ohlone/Costanoan
Pomona , CA 91766
rumsen@aol.com
(909) 524-8041 Cell
(909) 629-6081

Ohlone/Costanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
P.O. Box 1301 — Esselen
Monterey , CA 93942 — Ohlone/Costanoan
ramirez.louise@yahoo.com
(408) 629-5189
408-661-2486 Cell

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272 — Ohlone/Costanoan
Galt , CA 95632 — Northern Valley Yokuts
vlopez@amahmutsun.org
(916) 743-5833

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road — Ohlone/Costanoan
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7489 Cell
(650) 851-7747 Office
(650) 332-1526 Fax

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 — Ohlone/Costanoan
Hollister , CA 95024
ams@indiancanyon.org
(831) 637-4238

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was pr oduced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed East Laurel, Phase II, Monterey County

Ohlone/Costanoan-Esselen Nation

Previously acknowledged as
The San Carlos Band of Mission Indians
The Monterey Band
And also known as
O.C.E.N. or Esselen Nation
P.O. Box 1301
Monterey, CA 93942

www.ohlonecostanoanesselennation.org.

Re: Letter received June 20, 2018`

Saleki Atsa,

Ohlone/Costanoan-Esselen Nation is an historically documented previously recognized tribe. OCEN is the legal tribal government representative for over 600 enrolled members of Esselen, Carmeleno, Monterey Band, Rumsen, Chalon, Soledad Mission, San Carlos Mission and/or Costanoan Mission Indian descent of Monterey County. Though other indigenous people may have lived in the area, the area is the indigenous homeland of our people. Included with this letter please find a territorial map by Taylor 1856; Levy 1973; and Milliken 1990, indentifying Tribal areas.

Ohlone/Costanoan-Esselen Nation objects to all excavation in known cultural lands, even when they are described as previously disturbed, and of no significant archaeological value. Please be advised that it is our priority that our ancestor's remains be protected and undisturbed. We desire that all sacred burial items be left with our ancestors on site or as culturally determined by OCEN. We request all cultural items returned to Ohlone/Costanoan-Esselen Nation. We ask for the respect that is afforded all our current day deceased, by no other word these burial sites are cemeteries, respect for our ancestors as you would expect respect for your deceased family members in today's cemeteries. **Our definition of respect is no disturbance.**

OCEN's Tribal leadership desires to be provided with:

Archaeological reports/surveys, including subsurface testing, and presence/absence testing.
OCEN request to be included in mitigation and recovery programs,
OCEN request that Cultural and Tribal mitigation measures reflect request for OCEN Tribal Monitor,
Reburial of any of our ancestral remains, burial artifacts,
Placement/return of all cultural items to OCEN, and that
A Native American Monitor of Ohlone/Costanoan-Esselen Nation, approved by the OCEN Tribal Council is used within our aboriginal territory.
OCEN request consultation with the lead agency.

We ask that a sacred lands search with the Northwest Information Center, Sonoma State University and the Native American Heritage Commission. Please feel free to contact me at (408) 629-5189. Nimasianexelpasaleki. Thank you

Sincerely and Respectfully Yours,

Louise J. Miranda Ramirez, Chairperson
Ohlone/Costanoan-Esselen Nation
(408) 629-5189
Cc: OCEN Tribal Council

Pacific Legacy
Historic Preservation

Bay Area Division
900 Modoc Street
Berkeley, CA 94707

Phone: 510.524.3991
Fax: 510.524.4419
www.pacificlegacy.com

June 12, 2018

Ohlone/Costanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
PO Box 1301
Monterey, CA 93942

Re: East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) in Salinas, Monterey County, CA (PL#3417.01)

Dear Chairperson Miranda-Ramirez:

We have been retained by Kimley-Horn to conduct an archaeological assessment for a proposed project located in Salinas along East Laurel Drive Sidewalk and the Natividad Trail in Monterey County. The project will result in subsurface disturbances of approximately 2.5 feet.

The attached map provides the area of potential impact indicated on the Salinas and Natividad, CA 7.5′ USGS Quadrangles.

The Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) has been reviewed. This review failed to indicate the presence of cultural resources in the immediate project area. The NAHC provided us with your name as a contact to identify any locations of concern to local Native American Groups within the project area. If appropriate, please provide us with any information you may have regarding locations of concern in the project area. This information will be used for project planning and will be kept confidential. If you do not feel it is appropriate to divulge the type of resource, it can be noted as "environmentally sensitive area".

You may respond by mail, email, phone, or visit our office in Berkeley to inspect our research files. We anticipate receiving your reply within 14 days. At present, there is no date for start of construction. If you have any questions, please contact me, at (510) 524-3991 ext. 105. Thank you for your kind attention to this matter.

Sincerely,

Samantha Schell
Archaeologist
Bay Area Division
900 Modoc Street
Berkeley, CA 94707
Ph. 510-524-3991 x105

Attachment: Project Area on the Salinas and Natividad 7.5′ USGS Quadrangle

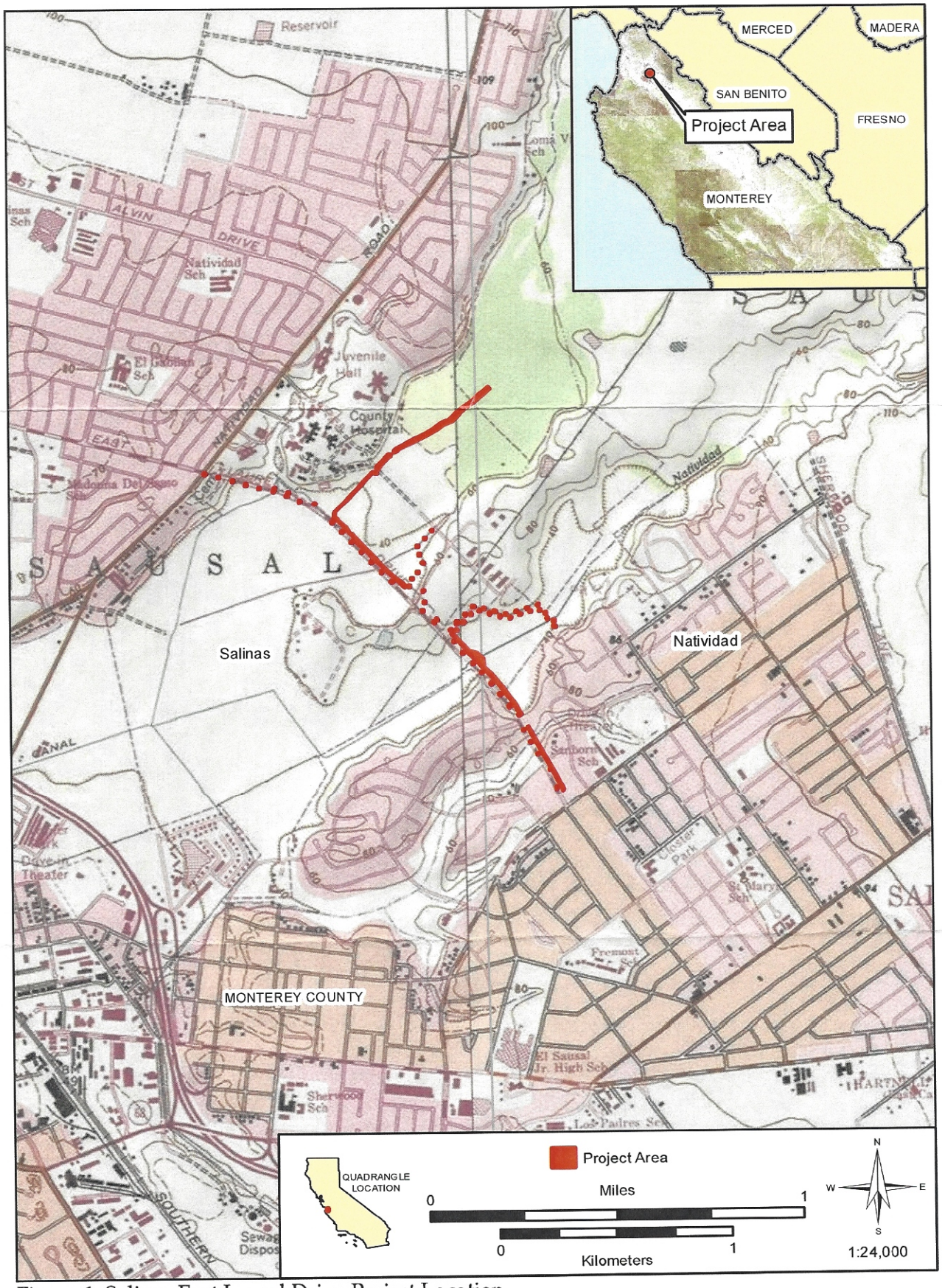


Figure 1. Salinas East Laurel Drive Project Location.

Distribution of Ohlone/Costanoan-Esselen Nation Tribal Rancherias, Districts, Landgrants and Historic Landmarks

OCEN DIRECT LINEAL DESCENT

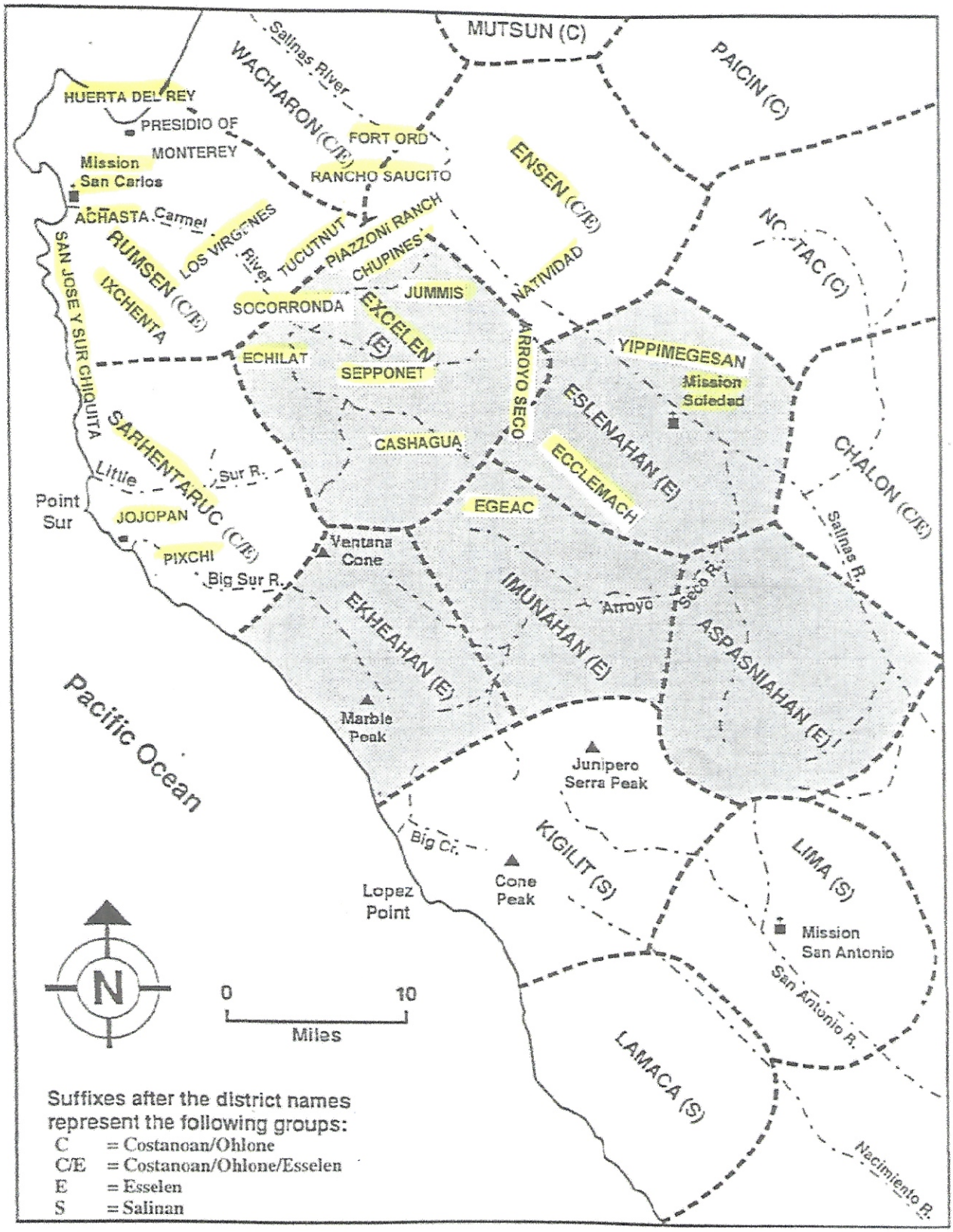


Figure 2:

Map after Taylor 1856; Levy 1973; Hester 1978; Milliken 1990

Pacific Legacy Inc.
Native American Contact Log

Project No. and Name:
PL 3417-01: East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II)

Pacific Legacy Representative:
Samantha Schell

Organization	Contact	Letter	Phone	E-mail	Comments
Native American Heritage Commission	Frank Lienert	06/04/2018 (dated) Received 6/12/2018	-	-	The Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) has been reviewed. This review failed to indicate the presence of cultural resources in the immediate project area.
Coastanoan Rumsen Carmel Tribe	Tony Cerda, Chairperson 244 E. 1st Street Pomona, CA 91766	6/12/2018	909-524-8041 909-629-6081		VM message on cell, no answer on land line 7/13/2018
Amah Mutsun Tribal Band	Valentin Lopez, Chairperson PO Box 5272 Galt, CA 95632	6/12/2018	906-743-5833		VM message 7/13/2018
Ohlone/Costanoan-Esselen Nation	Louise Miranda-Ramirez, Chairperson PO Box 1301 Monterey, CA 93942	6/12/2018	408-629-5189 408-661-2486	7/6/2018	Sent letter requesting consultation with lead agency received 7/6/2018.
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson PO Box 28 Hollister, CA 95024	6/12/2018	831-637-4238		Reached Ms. Sayers who said, "I have the utmost respect for Pacific Legacy. What is your take on this project?" I said it was the second phase of a bike/pedestrian trail project conducted in 2013 with negative results. She said if we are confident, she is confident. 7/13/2018
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irenne Zwierlein, Chairperson 789 Canada Road Woodside, CA 94062	6/12/2018	650-851-7489 650-851-7747		Reached. She asked if there were any resources found, I said no. She asked to make sure the crew had sensitivity training to know when to call the archaeologists.

Pacific Legacy
Historic Preservation

Bay Area Division
900 Modoc Street
Berkeley, CA 94707

Phone: 510.524.3991
Fax: 510.524.4419
www.pacificlegacy.com

June 12, 2018

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA 91766

Re: East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II) in Salinas, Monterey County, CA (PL#3417.01)

Dear Chairperson Cerda:

We have been retained by Kimley-Horn to conduct an archaeological assessment for a proposed project located in Salinas along East Laurel Drive Sidewalk and the Natividad Trail in Monterey County. The project will result in subsurface disturbances of approximately 2.5 feet.

The attached map provides the area of potential impact indicated on the Salinas and Natividad, CA 7.5' USGS Quadrangles.

The Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) has been reviewed. This review failed to indicate the presence of cultural resources in the immediate project area. The NAHC provided us with your name as a contact to identify any locations of concern to local Native American Groups within the project area. If appropriate, please provide us with any information you may have regarding locations of concern in the project area. This information will be used for project planning and will be kept confidential. If you do not feel it is appropriate to divulge the type of resource, it can be noted as "environmentally sensitive area".

You may respond by mail, email, phone, or visit our office in Berkeley to inspect our research files. We anticipate receiving your reply within 14 days. At present, there is no date for start of construction. If you have any questions, please contact me, at (510) 524-3991 ext. 105. Thank you for your kind attention to this matter.

Sincerely,

Samantha Schell
Archaeologist
Bay Area Division
900 Modoc Street
Berkeley, CA 94707
Ph. 510-524-3991 x105

Attachment: Project Area on the Salinas and Natividad 7.5' USGS Quadrangle

Pacific Legacy Inc.
Native American Contact Log

Project No. and Name:
PL 3417-01: East Laurel Drive Sidewalk and Natividad Trail Improvements (Phase II)

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Coastanoan Rumsen Carmel Tribe	Tony Cerda, Chairperson 244 E. 1st Street Pomona, CA 91766	6/12/2018	909-524-8041 909-629-6081		VM message on cell, no answer on land line 7/13/2018
Amah Mutsun Tribal Band	Valentin Lopez, Chairperson PO Box 5272 Galt, CA 95632	6/12/2018	906-743-5833		VM message 7/13/2018; Returned call 7/17/2018. If any cultural resources are found during construction Amah Mutsun Tribal Band wants to be notified.
Ohlone/Costanoan-Esselen Nation	Louise Miranda-Ramirez, Chairperson PO Box 1301 Monterey, CA 93942	6/12/2018	408-629-5189 408-661-2486	7/6/2018	Sent letter requesting consultation with lead agency received 7/6/2018.
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson PO Box 28 Hollister, CA 95024	6/12/2018	831-637-4238		Reached Ms. Sayers who said, "I have the utmost respect for Pacific Legacy. What is your take on this project?" I said it was the second phase of a bike/pedestrian trail project conducted in 2013 with negative results. She said if we are confident, she is confident. 7/13/2018
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irenne Zwierlein, Chairperson 789 Canada Road Woodside, CA 94062	6/12/2018	650-851-7489 650-851-7747		Reached. She asked if there were any resources found, I said no. She asked to make sure the crew had sensitivity training to know when to call the archaeologists.

MEETING NOTES AND ACTION ITEMS

OCTOBER 3, 2018

NATIVE AMERICAN CONSULTANTION FOR EAST LAUREL DRIVE PED IMPROVEMENTS WITH LOUISE MIRANDA-RAMIREZ AND CITY OF SALINAS

Attendees:

Louise Ramirez, Chair for Ohlong/Constanoan-Esselen Nation	Eda Herrera, City of Salinas	Jonathan Estes, City of Salinas
Dana Privitt, Kimley Horn	Samantha Schell, Pacific Legacy	

1. Louise asked if there were any testing done by Pacific Legacy at this project location. Samantha Schell from Pacific Legacy explained that no testing occurred because the records search and archaeological survey were negative within the 2.5 mile buffer area. In addition, the detention pond is a man made body of water.
2. Louise does not agree with the comment from Amah Mutsun tribe on sensitive training for construction crews to know when to call an archaeologist. Louise also disagrees with other Native American contact groups commenting on this project that is not in their "Home Land".
3. Louise request that the Tribal Monitoring occur on this project where original soil is being disturbed, even if it is 12" deep excavation. She understands that the fill on the East Laurel Road is not necessary to monitor. Monitors are elders from her tribe that are trained to oversee construction. An archeologists that she uses is Alan Leventhal from San Jose State University.
4. Louise has requested copies of any archeological reports from East Laurel Drive to keep on file. The draft initial study and MND cannot be released during the internal review process. Final IS/MND will be published sometime in November 2018.
5. Louise would like the City and tribe to arrive to an agreement on the handling of artifacts, if any are found on this project. She emphasized the importance that artifacts should not be removed until the tribe is contacted.
6. Louise would like a copy of the East Laurel Plans that built the road.
7. Louise would like a copy of today's minutes.
8. Louise and tribe are interested in construction projects that occur where there is body of water.

ACTION ITEMS:

City of Salinas:

- Send minutes, East Laurel plans from road construction, concept plans and any reports that are in our files that are public information to Louise.
- Send minutes to Dana Privitt.

Appendix D: Geotechnical Investigation

CORNERSTONE EARTH GROUP

Type of Services	**Geotechnical Investigation**
Project Name	**East Laurel Drive Sidewalk Improvements**
Location	**East Laurel Drive** **Salinas, California**
Client	**Kimley-Horn and Associates, Inc.**
Client Address	**765 The City Drive, Suite 200** **Orange, California**
Project Number	**234-36-1**
Date	**August 9, 2018**

DRAFT

Prepared by **Scott E. Fitinghoff, P.E., G.E.**
Principal Engineer
Geotechnical Project Manager

Nicholas S. Devlin
Senior Project Engineer
Quality Assurance Reviewer

CORNERSTONE EARTH GROUP

TABLE OF CONTENTS

Type of Services	**Geotechnical Investigation**
Project Name	**East Laurel Drive Sidewalk Improvements**
Location	**East Laurel Drive** **Salinas, California**

SECTION 1: INTRODUCTION

This proposed geotechnical report was prepared for the sole use of Kimley-Horn and Associates, Inc. for the East Laurel Drive Sidewalk Improvements in Salinas, California. The location of the site is shown on the Vicinity Map, Figure 1. For our use, we were provided with the following documents:

- A plan set titled "Laurel Drive Pedestrian Improvements, Geometric Layout – Laurel Drive", prepared by Kimley-Horn, dated June 2018.
- A topographic plan titled "Laurel Drive Pedestrian Improvements", prepared by the City of Salinas, dated February 2018.
- A plan titled "City of Salinas, East Laurel Drive Sidewalk and Natividad Trail Improvements", prepared by Kimley-Horn, dated November 9, 2017.
- An untitled utilities plan of East Laurel Drive prepared by Kimley-Horn, undated.

1.1 PROJECT DESCRIPTION

The project will consist of sidewalk improvements along East Laurel Drive between Constitution Boulevard and North Sanborn Road. The planned improvements will consist of a new pedestrian sidewalk along the northern east side of East Laurel Drive. The sidewalk improvements will consist of a typical concrete sidewalk and an elevated boardwalk where the sidewalk will be constructed over the top of the existing East Laurel Drive roadway embankment. The boardwalk is planned to be constructed adjacent to the Natividad Creek detention basin at the approximate location shown on the Site Plan, Figure 2. The total length of planned pedestrian improvements will be approximately 1½ miles. Underground utilities, lights, and landscape retaining walls may also be constructed as part of the project.

1.2 SCOPE OF SERVICES

Our scope of services was presented in our proposal dated March 12, 2018 and consisted of field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare recommendations for site work and grading, boardwalk foundations, flatwork, trench backfill, and preparation of this report. Brief descriptions of our exploration and laboratory programs are presented below.

1.3 EXPLORATION PROGRAM

Field exploration consisted of eight borings drilled on May 22 and 23, 2018 with track mounted, limited-access, hollow-stem auger drilling geoprobe. The borings were drilled to depths ranging from 4½ to 46½ feet. The borings were backfilled with cement grout in accordance with local requirements; exploration permits were obtained as required by local jurisdictions.

The approximate locations of our exploratory borings are shown on the Site Plan, Figure 2. Details regarding our field program are included in Appendix A.

1.4 LABORATORY TESTING PROGRAM

In addition to visual classification of samples, the laboratory program focused on obtaining data for foundation design and seismic ground deformation estimates. Testing included moisture contents, dry densities, Plasticity Index tests, and triaxial compression tests. Details regarding our laboratory program are included in Appendix B.

1.5 ENVIRONMENTAL SERVICES

Environmental services were not requested for this project. If environmental concerns are determined to be present during future evaluations, the project environmental consultant should review our geotechnical recommendations for compatibility with the environmental concerns.

SECTION 2: REGIONAL SETTING

2.1 REGIONAL SEISMICITY

The greater San Francisco Bay area is recognized by geologists and seismologists as one of the most seismically active regions in the United States. Significant earthquakes occurring in the Bay area are generally associated with crustal movement along well-defined, active fault zones of the San Andreas Fault system. A regional fault map is presented as Figure 3, illustrating the relative distances of the site to significant fault zones.

The San Andreas Fault generated the great San Francisco earthquake of 1906 and the Loma Prieta earthquake of 1989, and passes about 11.4 miles northeast of the site. A number of other faults exist in the Monterey Bay region. The Working Group on California Earthquake Probabilities (2007) developed estimates of earthquake probabilities in the San Francisco Bay area for the period from 2002 to 2031. Their most recent study suggests the probability of a

magnitude 6.7 or greater earthquake occurring during this time period in the San Francisco Bay region remained consistent with their conclusion in 2003 (62%). Their estimates of the probability of a magnitude 6.7 or greater earthquake on the northern segment of the San Andreas Fault which is the closest segment of the San Andreas to the subject site has been revised from 11 percent to 21 percent in that time period. During such an earthquake the danger of fault ground rupture at the sites is slight, but very strong to severe ground shaking would occur.

The faults considered capable of generating significant earthquakes are generally associated with the well-defined areas of crustal movement, which trend northwesterly. The tables below present the State-considered active faults within 25 kilometers of each site.

Table 1: Approximate Fault Distances

Fault Name	Distance	
	(miles)	(kilometers)
Rinconada	5.7	9.2
Zayante Vergeles	8.5	13.6
San Andreas (1906)	11.4	18.4
Monterey Bay-Tularcitos	14.7	23.7

A regional fault map is presented as Figure 3, illustrating the relative distances of the site to significant fault zones.

SECTION 3: SITE CONDITIONS

3.1 SURFACE DESCRIPTION

As discussed before, the project will consist of sidewalk improvements along East Laurel Drive in Salinas, California. The project consists of three parts which are designated by stations from the plans provided to us by Kimley-Horn and Associates dated June 2018. We understand the three parts are:

- Part 1 – The northern sidewalk (Station 1+00 to Station 46+25)
- Part 2 – The boardwalk (Station 56+25 to Station 71+25)
- Part 3 – The southern sidewalk (Station 71+25 to Station 81+25)

3.1.1 Part 1

The northern sidewalk area is currently occupied by a narrow dirt path at the edge of the existing East Laurel Drive embankment which is currently used for pedestrian traffic. The depth of the embankment height is approximately 2½ to 3 feet. The edges of the embankment was observed to have vegetation growth ranging from grass, bushes, and small trees.

3.1.2 Part 2

The boardwalk area is currently occupied by vegetation growth and a narrow unimproved dirt path located at the edge of the existing East Laurel Drive embankment that is currently used by pedestrians. The embankment height varies from 3½ to approximately 24 feet in depth and has an approximate slope of 1:1. The edge of the embankment is inhabited by vegetation of tall grass, bushes, and small trees. This area is adjacent to the Natividad Creek detention basin and the embankment is located between the basin and the East Laurel Drive. We observed concrete rubble present in the embankment surface while drilling our borings.

3.1.3 Part 3

On the southern sidewalk area, the area is occupied by a mixture of an aggregate base walking trail and a narrow unimproved dirt path used by pedestrians. The embankment height varies from to approximately 24 feet until it feathers back to existing grade while approaching North Sanborn Road and has an approximate slope of 1:1. The edge of the embankment is covered by vegetation of tall grass, bushes, and small trees.

Utilities are a concern on all parts of this project, the major one being an active gas line. According to PG&E, there is an active gas line located approximately 7 to 9 feet deep and is within 10 feet of the planned sidewalk improvement project. Additionally, there are overhead wires that are present along the area where the boardwalk is planned.

3.2 SUBSURFACE CONDITIONS

Below the surface, our Exploratory Borings EB-1 through EB-7 encountered fills ranging from 6 to 44 feet below the existing grades. The undocumented fill consists of loose, poorly graded sands, medium dense clayey sand, medium stiff to hard lean clays, very stiff silts, and stiff to very stiff fat clays. In general, based on our observation of the samples from our borings, it appears the undocumented fill was compacted during placement consistent with typical roadway embankment construction practices.

<u>Part 1 – Northern Sidewalk Area (Borings EB-1 and EB-2)</u>

In Boring EB-1, our exploration encountered of 6 feet of undocumented fill underlain by soft to medium stiff fat clays to a depth of 9½ feet, underlain by medium stiff lean clays to a depth of 12½ feet underlain by soft fat clay to a depth of 20 feet, the terminal depth of EB-1. In Boring EB-2, our exploration encountered 7½ feet of undocumented fill underlain by stiff to medium stiff fat clays to a depth of 15 feet, the terminal depth of EB-2.

<u>Part 2 – Boardwalk Area (Borings EB-3 to EB-7)</u>

In Boring EB-3, our exploration encountered 14½ feet of undocumented fill underlain by medium dense sands to a depth of 15 feet, the terminal depth of EB-3. In Boring EB-4, our exploration encountered 16 feet of undocumented fill underlain by medium dense poorly graded sand to a depth of 19 feet, underlain by stiff fat clay to a depth of 23½ feet, underlain by stiff peat organics

to a depth of 30 feet, underlain by stiff fat clay to a depth of 33½ feet, underlain by stiff lean clay with sand to a depth of 36½ feet, the terminal depth of EB-4. In Boring EB-5 below the minor aggregate base layer, our exploration encountered 14 feet of undocumented fill underlain by hard fat clays to a depth of 17 feet, underlain by hard sandy lean clays to a depth of 22 feet, underlain by medium stiff to stiff lean clay, underlain by hard sandy clays to a depth of 30 feet, the terminal depth of EB-5. Beneath the 8 inches of aggregate base, Boring EB-6 encountered undocumented fill to the terminal depth of 30½ feet below the existing grade. We attempted to drill EB-7 between EB-6 and EB-8; however, we could not drill the boring at this location because of the close proximity to the gas line and powerlines. In Boring EB-7, our exploration encountered 44 feet of undocumented fill underlain by stiff lean clay to the maximum depth explored of 46½ feet. Our Geologic Cross-Section A-A' (Figure 4) shows the material encountered in our exploratory borings and the depth of the embankment fill.

Part 3 – Southern Sidewalk Area (Borings EB-8)

Beneath the 8 inches of aggregate base, Boring EB-8 encountered very stiff lean clay to the maximum depth of 4½ feet.

3.2.1 Plasticity/Expansion Potential

We performed two Plasticity Index (PI) tests on representative samples. Test results were used to evaluate expansion potential of surficial soils. The first test was performed on a sample from our Boring EB-4 at a depth of 2 feet and resulted in a PI of 22 indicating low to moderate expansion potential to wetting and drying cycles. The second test was performed on a sample from our Boring EB-7 at a depth of 40 feet which resulted in a PI of 66 indicating very high expansion potential to wetting and drying cycles.

3.2.2 In-Situ Moisture Contents

Laboratory testing indicated that the in-situ moisture contents within the upper 10 feet range from at optimum to 12 percent over the estimated laboratory optimum moisture content. We note the soil below the upper 10 feet had moisture contents varying from optimum to more than 100 percent over (in the peat soil) the estimated laboratory optimum moisture.

3.3 GROUND WATER

Ground water was encountered in our Borings EB-2 and EB-4 at depths of 14 to 19 feet below the existing grades. All measurements were taken at the time of drilling and may not represent the stabilized levels that can be higher than the initial levels encountered. Groundwater was not observed in Borings EB-1, EB-3, and EB-5 through EB-8.

Historic high ground water levels for the site indicate a ground water depth of approximately 10 feet below current grades eat the top of the embankment according to Department of Water Resources. In general, fluctuations in ground water levels occur due to many factors including seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

Based on the above information and our experience in the vicinity of the site, we estimate a high ground water level of 10 feet below existing grades and recommend 10 feet be used for design.

3.4 CORROSION SCREENING

We tested three sample collected at depths ranging from 1½ to 45½ feet for resistivity, pH, soluble sulfates, and chlorides. The laboratory test results are summarized in Table 2A.

Table 2A: Summary of Corrosion Test Results

Sample Location	Depth (feet)	Soil pH[1]	Resistivity[2] (ohm-cm)	Chloride[3] (mg/kg)	Sulfate[4,5] (mg/kg)
EB-4	1½	8.2	2,478	<2	32
EB-5	24	7.9	1,428	62	181
EB-7	45½	7.4	1,519	88	84

Notes: [1]ASTM G51
[2]ASTM G57 - 100% saturation
[3]ASTM D3427/Cal 422 Modified
[4]ASTM D3427/Cal 417 Modified
[5]1 mg/kg = 0.0001 % by dry weight

Many factors can affect the corrosion potential of soil including moisture content, resistivity, permeability, and pH, as well as chloride and sulfate concentration. Typically, soil resistivity, which is a measurement of how easily electrical current flows through a medium (soil and/or water), is the most influential factor. In addition to soil resistivity, chloride and sulfate ion concentrations, and pH also contribute in affecting corrosion potential.

3.4.1 Preliminary Soil Corrosion Screening

Based on the laboratory test results summarized in Table 2A and published correlations between resistivity and corrosion potential, the soils may be considered moderately to severely corrosive to buried metallic improvements (Chaker and Palmer, 1989).

In accordance with the 2016 CBC Section 1904A.1, alternative cementitious materials for different exposure categories and classes shall be determined in accordance with ACI 318-14 Table 19.3.1.1, Table R19.3.1, and Table 19.3.2.1. Based on the laboratory sulfate test results, no cement type restriction is required. We have summarized applicable exposure categories and classes from ACI 318-14, Table 19.3.1.1 below in Table 2B.

We recommend the structural engineer and a corrosion engineer be retained to confirm the information provided and for additional recommendations, as required.

Table 2B: ACI 318-14 Table 19.3.1.1 Exposure Categories and Classes

Freezing and Thawing (F)	Sulfate (S, soil)	In Contact with Water (W)	Corrosion Protection of Reinforcement (C)
F0[1]	S0[2]	W0[3]	C0[4]

1 (F0) "Concrete not exposed to freezing-and-thawing cycles" (ACI 318-14)
2 (S0) "Water soluble sulfate in soil, percent by mass is less than 0.10" (ACI 318-14)
3 (W0) "Concrete not in contact with water and low permeability is not required" (ACI 318-14)
4 (C0) "Concrete not exposed to an external source of chlorides from deicing chemicals, salt, brackish water, seawater, or spray from these sources" (ACI 318-14)

In addition, ACI 318-14, Table 19.3.2.1 provides requirements for concrete by exposure class. Table 2C below indicates different requirements that we recommend be followed for the concrete design.

Table 2C: ACI 318-14 Table 19.3.2.1 Requirements for Concrete by Exposure Class

Exposure Class	Maximum water:cement ratio	Minimum Compressive Strength (psi)	Maximum Water-Soluble Chloride Ion Content (% wt)
F0	N/A	2,500	N/A
S0 (soil)	N/A	2,500	N/A
W0	0.50	2,500	N/A
C0	N/A	2,500	1.00/0.06[1]

1 For nonprestressed and prestressed concrete

SECTION 4: GEOLOGIC HAZARDS

4.1 FAULT RUPTURE

As discussed above several significant faults are located within 25 kilometers of the site. The site is not located within a State-designated Alquist Priolo Earthquake Fault Zone. As shown in Figure 3, no known surface expression of fault traces is thought to cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site.

4.2 ESTIMATED GROUND SHAKING

Moderate to severe (design-level) earthquakes can cause strong ground shaking, which is the case for most sites within the Bay Area. Peak ground accelerations (PGA) of 0.537g was estimated for analysis using a value equal to $PGA_M = F_{PGA} \times PGA_G$ (Equation 11.8-1) as allowed in the 2016 California Building Code (CBC).

4.3 LIQUEFACTION POTENTIAL

The site is partial within a high liquefaction susceptibility area as stated from the geologic hazards map provided by Monterey County. The site is not currently mapped by the State of California, but is within a zone mapped as having a moderate liquefaction potential by USGS. Our field and laboratory programs addressed this issue by testing and sampling potentially

liquefiable layers, performing visual classification on sampled materials and performing various tests to further classify soil properties.

4.3.1 Background

During strong seismic shaking, cyclically induced stresses can cause increased pore pressures within the soil matrix that can result in liquefaction triggering, soil softening due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in sloping ground or where open faces are present (lateral spreading) (NCEER 1998). Limited field and laboratory data is available regarding ground deformation due to settlement; however, in clean sand layers settlement on the order of 2 to 3 percent of the liquefied layer thickness can occur. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap.

4.3.2 Analysis

As discussed in the "Subsurface" section above, several sand layers were encountered below the design ground water depth of 10 feet. Following the procedures in the 2008 monograph, *Soil Liquefaction During Earthquakes* (Idriss and Boulanger, 2008) and in accordance with CDMG Special Publication 117A guidelines (CDMG, 2008) for quantitative analysis, these layers were analyzed for liquefaction triggering and potential post-liquefaction settlement. These methods compare the ratio of the estimated cyclic shaking (Cyclic Stress Ratio - CSR) to the soil's estimated resistance to cyclic shaking (Cyclic Resistance Ratio - CRR), providing a factor of safety against liquefaction triggering. Factors of safety less than or equal to 1.3 are considered to be potentially liquefiable and capable of post-liquefaction re-consolidation.

The CSR for each layer quantifies the stresses anticipated to be generated due to a design-level seismic event, is based on the peak horizontal acceleration generated at the ground surface discussed in the "Estimated Ground Shaking" section above, and is corrected for overburden and stress reduction factors as discussed in the procedure developed by Seed and Idriss (1971) and updated in the 2008 Idriss and Boulanger monograph.

The soil's CRR is estimated from the in-situ density and strength obtained from field SPT blow counts ("N" value). The "N" values are corrected for effective overburden stresses, taking into consideration both the ground water level at the time of exploration and the design ground water level, and stress reduction versus depth factors. The "N" values are also corrected for fines content, hammer efficiency, boring diameter, rod length, and sampler type (with or without liners).

4.3.3 Summary

Our analyses of our borings indicate that there are not layers of potentially liquefiable soils in the borings. However, the actual soil conditions between the borings may vary, therefore, liquefaction may occur. This level of settlement is very minor.

4.4 SEISMIC SETTLEMENT/UNSATURATED SAND SHAKING

Loose unsaturated sandy soils can settle during strong seismic shaking. We evaluated the potential for seismic compaction of the northern part of the boardwalk based on the work by Pradell (1998). Our analyses indicate that the upper 5 feet of the soil in the vicinity of Boring EB-6 could experience up to 1 inch of movement after strong seismic shaking. However, the helical anchors will be found in material below the level and dry sand shaking is not anticipated to be an issue for this project.

4.5 TSUNAMI/SEICHE

The terms tsunami or seiche are described as ocean waves or similar waves in large bodies of water usually created by undersea fault movement or by a coastal or submerged landslide. Tsunamis may be generated at great distance from shore (far field events) or nearby (near field events). Waves are formed, as the displaced water moves to regain equilibrium, and radiates across the open water, similar to ripples from a rock being thrown into a pond. When the waveform reaches the coastline, it quickly raises the water level, with water velocities as high as 15 to 20 knots. The water mass, as well as vessels, vehicles, or other objects in its path create tremendous forces as they impact coastal structures.

Tsunamis have affected the coastline along the Pacific Northwest during historic times. The Fort Point tide gauge in San Francisco recorded approximately 21 tsunamis between 1854 and 1964. The 1964 Alaska earthquake generated a recorded wave height of 7.4 feet and drowned eleven people in Crescent City, California. For the case of a far-field event, the Bay area would have hours of warning; for a near field event, there may be only a few minutes of warning, if any.

A tsunami or seiche originating in the Pacific Ocean would lose much of its energy passing through San Francisco Bay. Based on the study of tsunami inundation potential for the San Francisco Bay Area (Ritter and Dupre, 1972), areas most likely to be inundated are marshlands, tidal flats, and former bay margin lands that are now artificially filled, but are still at or below sea level, and are generally within 1½ miles of the shoreline. The site is approximately 10 miles inland from the San Francisco Bay shoreline, and is approximately 44 to 80 feet above mean sea level. Therefore, the potential for inundation due to tsunami or seiche is considered low.

4.6 FLOODING

Based on our internet search of the Federal Emergency Management Agency (FEMA) flood map public database, the site is located within Floodway Areas in Zone AE (Part 1), described as the floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increase in flood heights and Zone X (Part 2 and Part 3), described as areas determined to be outside the 0.2% annual chance floodplain. We recommend the project civil engineer be retained to confirm this information and verify the base flood elevation, if appropriate.

SECTION 5: CONCLUSIONS

5.1 SUMMARY

From a geotechnical viewpoint, the project is feasible provided the concerns listed below are addressed in the project design. Descriptions of each concern with brief outlines of our recommendations follow the listed concerns.

- Presence of undocumented fill
- Presence of very high expansive soils
- Soil corrosion potential

5.1.1 Presences of Undocumented Fill

Borings EB-1 through EB-5 encountered 6 to 15 feet of fill. Fill up to 44 feet thick was encountered within EB-6 and EB-7. Based on our review of the site conditions, the fill was placed to construct the roadway embankment for East Laurel Drive. It is likely the fill was placed in two or more time periods. Based on our review of the borings, the fill consists primary of low to moderate plasticity, stiff to hard lean clay with sand, lean clays, and silt with sand. In general, the fill has dry densities ranging from 80 to 95 and 100 to 110 pounds per cubic foot with moisture contents varying from 27 to 33 percent and 8 to 14 percent, respectively.

The blow counts in the fill from our borings ranged from 7 to 20 blows per foot below a depth of 5 feet. The blow count in some of the borings above 5 feet were less than 7 blows per foot. We also made a visually review of the samples and noted that fill materials were mottled and mechanically compacted. The fills have moderate to high shear strengths consistent with mechanically compacted clays. Although the dry densities are typically below 100 pounds per cubic foot, it is our judgement that the fill has been placed with compactive effort consistent with engineered fill for roadway embankments. We did not observe signs of significant settlement. The fill has higher strength with lower compressibity than the underlying native soils. On this basis, we are recommending the boardwalk be supported on helical anchors deriving they're capacity from the fill. Since the embankment has been constructed overlying weaker and compressible soils, it should be noted to some minor settlement of the embankment may occur during the future. Any such settlement would likely be fairly uniform with some minor differential transitions. One of the reasons for the boardwalk solution supported on helical anchors is to minimize the loading on the existing embankment which will reduce any future settlement from the new loads. The other portions of the sidewalk may be supported on subgrade compacted in accordance with the recommendations provided in this report. Recommendations for helical anchors are presented in the "Foundations" section of this report. Recommendations for earthwork are presented in the "Earthwork" section of this report.

5.1.2 Presences of Expansive Soils

As discussed, moderately to very highly expansive surficial soils were encountered in the surficial soils that blanket the site. Expansive soils can undergo significant volume change with

changes in moisture content. They shrink and harden when dried and expand and soften when wetted.

As mentioned in Section 3.2.1, the PI performed on the upper 5 feet indicated to have low to moderate expansive soils. A second PI was performed at approximately 40 feet which indicate to have very high expansive soils present. Earth recommendations addressing this concern are presented in Sections 6 and 7 of this report.

5.1.3 Soil Corrosion Potential

Preliminary soil corrosion data was collected on three samples from 1½ to 45½ feet. Based on the results of the analytical tests, we have summarized applicable exposure categories and classes from ACI 318-14, Table 19.3.1.1; ACI 318-14, Table R19.3.1 and Table 19.3.2.1 should also be considered when designing for corrosion protection. Additionally, the corrosion potential for buried metallic structures, such as metal pipes and the steel from helical anchors, is considered moderately to severely corrosive. Special requirements will likely be required for corrosion control on any proposed buried metallic structures. The helical anchors should be designed with a corrosion allowance and/or from materials that are resistant to corrosion. We recommend that a corrosion engineering specialist be retained for corrosion protection recommendations.

5.2 PLANS AND SPECIFICATIONS REVIEW

We recommend that we be retained to review the geotechnical aspects of the project structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing the plans for construction.

5.3 CONSTRUCTION OBSERVATION AND TESTING

As site conditions may vary significantly between the small-diameter borings performed during this investigation, we also recommend that a Cornerstone representative be present to provide geotechnical observation and testing during earthwork and foundation construction. This will allow us to form an opinion and prepare a letter at the end of construction regarding contractor compliance with project plans and specifications, and with the recommendations in our report. We will also be allowed to evaluate any conditions differing from those encountered during our investigation, and provide supplemental recommendations as necessary. For these reasons, the recommendations in this report are contingent of Cornerstone providing observation and testing during construction. Contractors should provide at least a 48-hour notice when scheduling our field personnel.

SECTION 6: EARTHWORK

6.1 SITE DEMOLITION

All existing improvements designate for removal, including all foundations, flatwork, utilities, and other improvements should be demolished and removed from the site. Recommendations in

this section apply to the removal of these improvements, which may be present on the site, prior to the start of mass grading or the construction of new improvements for the project.

Cornerstone should be notified prior to the start of demolition, and should be present on at least a part-time basis during all backfill and mass grading as a result of demolition. Occasionally, other types of buried structures can be found on sites with prior development. If encountered, Cornerstone should be contacted to address these types of structures on a case-by-case basis.

6.2 SITE CLEARING AND PREPARATION

6.2.1 Site Stripping

The site should be stripped of all surface vegetation, and surface and subsurface improvements within the proposed development area. Demolition of existing improvements is discussed in detail below. Surface vegetation and topsoil should be stripped to a sufficient depth to remove all material greater than 3 percent organic content by weight. Based on our site observations, surficial stripping should extend about 3 to 8 inches below existing grade in vegetated areas. We note that large concrete rubble was observed on the road embankment slope surface.

6.2.2 Tree and Shrub Removal

Trees and shrubs designated for removal should have the root balls and any roots greater than ½-inch diameter removed completely. Mature trees are estimated to have root balls extending to depths of 2 to 4 feet, depending on the tree size. Significant root zones are anticipated to extend to the diameter of the tree canopy. Grade depressions resulting from root ball removal should be cleaned of loose material and backfilled in accordance with the recommendations in the "Compaction" section of this report.

6.3 REMOVAL OF EXISTING FILLS

Existing fills extending into planned sidewalk and boardwalk areas may be left in place provided to mitigate the risk of settlement on the sidewalk area, the upper 18 inches of fill below subgrade should be re-worked and compacted as discussed in the "Compaction" section below. The owner understands that there is a minor risk of settlement in the future because a majority of the embankment fill will be left in place.

6.4 TEMPORARY CUT AND FILL SLOPES

The contractor is responsible for maintaining all temporary slopes and providing temporary shoring where required. Temporary shoring, bracing, and cuts/fills should be performed in accordance with the strictest government safety standards. On a preliminary basis, the upper 10 feet at the site may be classified as OSHA Soil Type B materials. A Cornerstone representative should be retained to confirm the preliminary site classification.

For OSHA Soil Type B soils, the temporary cuts should be sloped at an inclination of 1:1 horizontal to vertical or shored.

6.5 SUBGRADE PREPARATION

After site clearing, demolition, and removal of the existing fills is complete, and prior to backfilling any excavations resulting from fill removal or demolition, the excavation subgrade and subgrade within areas to receive additional site fills, slabs-on-grade and/or pavements should be scarified to a depth of 6 inches, moisture conditioned, and compacted in accordance with the "Compaction" section below. Refer to City of Salinas Standard for subgrade preparations.

6.6 MATERIAL FOR FILL

6.6.1 Re-Use of On-site Soils

On-site soils with an organic content less than 3 percent by weight may be reused as fill, provided that the City will allow modification of their standard specifications as discussed previously. It is noted that on-site soils will require aeration and mixing prior to re-use as trench backfill. Fill should not have lumps, clods or cobble pieces larger than 6 inches in diameter; 85 percent of the fill should be smaller than 2½ inches in diameter. Minor amounts of oversize material (smaller than 12 inches in diameter) may be allowed provided the oversized pieces are not allowed to nest together and the compaction method will allow for loosely placed lifts not exceeding 12 inches. Refer to City of Salinas Standard specifications.

6.6.2 Potential Import Sources

Imported and non-expansive material should be inorganic with a Plasticity Index (PI) of 15 or less. In addition, import sources should meet the requirements of the City of Salinas Standard specifications. To prevent significant caving during trenching or foundation construction, imported material should have sufficient fines. Samples of potential import sources should be delivered to our office at least 10 days prior to the desired import start date. Information regarding the import source should be provided, such as any site geotechnical reports. If the material will be derived from an excavation rather than a stockpile, potholes will likely be required to collect samples from throughout the depth of the planned cut that will be imported. At a minimum, laboratory testing will include PI tests. Material data sheets for select fill materials (Class 2 aggregate base, ¾-inch crushed rock, quarry fines, etc.) listing current laboratory testing data (not older than 6 months from the import date) may be provided for our review without providing a sample. If current data is not available, specification testing will need to be completed prior to approval.

Environmental and soil corrosion characterization should also be considered by the project team prior to acceptance. Suitable environmental laboratory data to the planned import quantity should be provided to the project environmental consultant; additional laboratory testing may be required based on the project environmental consultant's review. The potential import source should also not be more corrosive than the on-site soils, based on pH, saturated resistivity, and soluble sulfate and chloride testing.

6.7 COMPACTION REQUIREMENTS

All fills, and subgrade areas where fill, slabs-on-grade, and pavements are planned, should be placed in loose lifts 8 inches thick or less and compacted in accordance with ASTM D1557 (latest version) requirements as shown in the table below. In general, clayey soils should be compacted with sheepsfoot equipment and sandy/gravelly soils with vibratory equipment; open-graded materials such as crushed rock should be placed in lifts no thicker than 18 inches consolidated in place with vibratory equipment. Each lift of fill and all subgrade should be firm and unyielding under construction equipment loading in addition to meeting the compaction requirements to be approved. The contractor (with input from a Cornerstone representative) should evaluate the in-situ moisture conditions, as the use of vibratory equipment on soils with high moistures can cause unstable conditions. General recommendations for soil stabilization are provided in the "Subgrade Stabilization Measures" section of this report. Where the soil's PI is 20 or greater, the expansive soil criteria should be used.

Table 3: Compaction Requirements

Description	Material Description	Minimum Relative Compaction (percent)	Moisture[2] Content (percent)
Embankment (within upper 5 feet)	On-Site Expansive Soils	88 – 92[1]	>3
	Low Expansion Soils	90[3]	>1
Trench Backfill	On-Site Expansive Soils	88 – 92[1]	>3
	Low Expansion Soils	95[3]	>1
Sidewalk Subgrade	On-Site Expansive Soils	88 – 92[1]	>3
	Low Expansion Soils	90[3]	>1
Pavement Areas	Subgrade and Aggregate Base	95[4]	>1

1 – Recommended by Cornerstone Earth group for expansive soils using relative compaction based on maximum density determined by ASTM D1557 (latest version)
2 – Moisture content based on optimum moisture content determined by ASTM D1557 (latest version)
3 – Relative compaction recommended by City if Salinas Specifications (latest version)
4 – Relative compaction recommended by Caltrans Sections 26 (latest version)

6.7.1 Construction Moisture Conditioning

Expansive soils can undergo significant volume change when dried then wetted. The contractor should keep all exposed expansive soil subgrade (and also trench excavation side walls) moist until protected by overlying improvements (or trenches are backfilled). If expansive soils are allowed to dry out significantly, re-moisture conditioning may require several days of re-wetting (flooding is not recommended), or deep scarification, moisture conditioning, and re-compaction.

6.8 TRENCH BACKFILL

Pipeline lines constructed within public right-of-way should be trenched, bedded and shaded, and backfilled in accordance with the local or governing jurisdictional requirements (City of Salinas Specifications, Section 19-4.032), except as modified above.

Pipeline lines should be bedded and shaded to at least 12 inches over the top of the lines with crushed rock (⅜-inch-diameter or greater). Open-graded shading materials should be encapsulated in geotextile fabric and compacted as shown in Table 6 with vibratory equipment prior to placing subsequent backfill materials.

We recommend that the trench be excavated a minimum 12 inches beyond the outside of the pipe including bells. The crushed rock should be consolidated on the outside of the pipe in lifts with vibration equipment to enable the material to be compacted under the pipe haunches. General backfill over shading materials may consist of on-site native materials provided they meet the requirements in the “Material for Fill” section, and are moisture conditioned and compacted in accordance with the requirements in the “Compaction” section.

SECTION 7: FOUNDATIONS

7.1 SUMMARY OF RECOMMENDATIONS

In our opinion, the boardwalk may be supported on drilled piers foundations provided the recommendations in the “Earthwork” section and the sections below are followed.

7.2 SEISMIC DESIGN CRITERIA

We understand that the project structural design will be based on the 2016 California Building Code (CBC), which provides criteria for the seismic design of buildings in Chapter 16. The “Seismic Coefficients” used to design buildings are established based on a series of tables and figures addressing different site factors, including the soil profile in the upper 100 feet below grade and mapped spectral acceleration parameters based on distance to the controlling seismic source/fault system. Based on our borings and review of local geology, the site is underlain by deep alluvial soils with typical SPT “N” values between 15 and 50 blows per foot. Therefore, we have classified the site as Soil Classification D. The mapped spectral acceleration parameters S_S and S_1 were calculated using the USGS web-based program *U.S. Seismic Design Maps* (http://geohazards.usgs.gov/designmaps/us/application.php), Version 3.1.0, revision date July 11, 2013, based on the site coordinates presented below and the site classification. The table below lists the various factors used to determine the seismic coefficients and other parameters.

Table 4: CBC Site Categorization and Site Coefficients

Classification/Coefficient	Design Value
Site Class	D
Site Latitude	36.68724°
Site Longitude	-121.6237°
0.2-second Period Mapped Spectral Acceleration[1], S_S	1.500 g
1-second Period Mapped Spectral Acceleration[1], S_1	0.600 g
Short-Period Site Coefficient – Fa	1.000
Long-Period Site Coefficient – Fv	1.500
0.2-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects - S_{MS}	1.500 g
1-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects – S_{M1}	0.900 g
0.2-second Period, Design Earthquake Spectral Response Acceleration – S_{DS}	1.000 g
1-second Period, Design Earthquake Spectral Response Acceleration – S_{D1}	0.600 g

[1]For Site Class B, 5 percent damped.

7.3 HELICAL ANCHORS

We understand that helical anchors may be added to support the boardwalk. The anchors should be designed to an axial capacity of 15 kips and should be extended down to a minimum embedment of 22 feet below the existing grade with 5 feet extensions. We recommend to install a lead helical anchor of 7 feet with three diameter plats starting at 8 inches, 10 inches and 12 inches. We recommend the lead anchor be followed by one 5 foot extensions with a plate diameter of 14 inches. Several extensions without plate would be installed up to the bottom of the boardwalk. Installation of the helical piers my result in an open hole in the upper 5 to 10 feet of the helical anchor. This can be backfilled with CLSM. The helical anchors should be Chance type SS175, or 1½ inch round corner square shaft helical pile, or approval equivalent. Cornerstone should review the proposed design prior to the start of construction. We recommend the contractor and Cornerstone monitor the torque during the anchor installation to verify the anchors have been installed at the required structural capacities. If the capacities of the anchors are greater than 15 kips, we recommend we be retained to provide recommendations, consultation, and observations of contractor testing of the anchors to confirm the capacities. Helical ground anchors should be spaced at a minimum of 3 times the maximum helix diameter. Construction tolerances for vertical alignment should be specified such that there will not be overlap at the anchor tips.

7.3.1 Construction Considerations

The installation of all drilled helical anchors should be observed by a Cornerstone representative to confirm the soil profile, verify that the piers extend the minimum depth into suitable materials, and that the piers are constructed in accordance with our recommendations

and project requirements. The drilled shafts should be straight, dry, and relatively free of loose material before reinforcing steel is installed and concrete is placed.

SECTION 8: CONCRETE SLABS AND PEDESTRIAN PAVEMENTS

8.1 EXTERIOR PEDESTRIAN CONCRETE SIDEWALK

Exterior concrete flatwork subject to pedestrian and/or occasional light pick up loading should be at least 4 inches thick and supported on at least 6 inches of Class 2 aggregate base overlying subgrade prepared in accordance with the "Earthwork" recommendations of this report. To help reduce the potential for uncontrolled shrinkage cracking, adequate expansion and control joints should be included. Consideration should be given to limiting the control joint spacing to a maximum of about 2 feet in each direction for each inch of concrete thickness. Flatwork should be isolated from adjacent foundations or retaining walls except where limited sections of structural slabs are included to help span irregularities in retaining wall backfill at the transitions between at-grade and on-structure flatwork.

SECTION 9: LIMITATIONS

This report, an instrument of professional service, has been prepared for the sole use of Kimley-Horn and Associates, Inc. specifically to support the design of the East Laurel Drive Sidewalk Improvements project in Salinas, California. The opinions, conclusions, and recommendations presented in this report have been formulated in accordance with accepted geotechnical engineering practices that exist in Northern California at the time this report was prepared. No warranty, expressed or implied, is made or should be inferred.

Recommendations in this report are based upon the soil and ground water conditions encountered during our subsurface exploration. If variations or unsuitable conditions are encountered during construction, Cornerstone must be contacted to provide supplemental recommendations, as needed.

Kimley-Horn and Associates, Inc. may have provided Cornerstone with plans, reports and other documents prepared by others. Kimley-Horn and Associates, Inc. understands that Cornerstone reviewed and relied on the information presented in these documents and cannot be responsible for their accuracy.

Cornerstone prepared this report with the understanding that it is the responsibility of the owner or his representatives to see that the recommendations contained in this report are presented to other members of the design team and incorporated into the project plans and specifications, and that appropriate actions are taken to implement the geotechnical recommendations during construction.

Conclusions and recommendations presented in this report are valid as of the present time for the development as currently planned. Changes in the condition of the property or adjacent properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through

legislation or the broadening of knowledge. Therefore, the conclusions and recommendations presented in this report may be invalidated, wholly or in part, by changes beyond Cornerstone's control. This report should be reviewed by Cornerstone after a period of three (3) years has elapsed from the date of this report. In addition, if the current project design is changed, then Cornerstone must review the proposed changes and provide supplemental recommendations, as needed.

An electronic transmission of this report may also have been issued. While Cornerstone has taken precautions to produce a complete and secure electronic transmission, please check the electronic transmission against the hard copy version for conformity.

Recommendations provided in this report are based on the assumption that Cornerstone will be retained to provide observation and testing services during construction to confirm that conditions are similar to that assumed for design, and to form an opinion as to whether the work has been performed in accordance with the project plans and specifications. If we are not retained for these services, Cornerstone cannot assume any responsibility for any potential claims that may arise during or after construction as a result of misuse or misinterpretation of Cornerstone's report by others. Furthermore, Cornerstone will cease to be the Geotechnical-Engineer-of-Record if we are not retained for these services.

SECTION 10: REFERENCES

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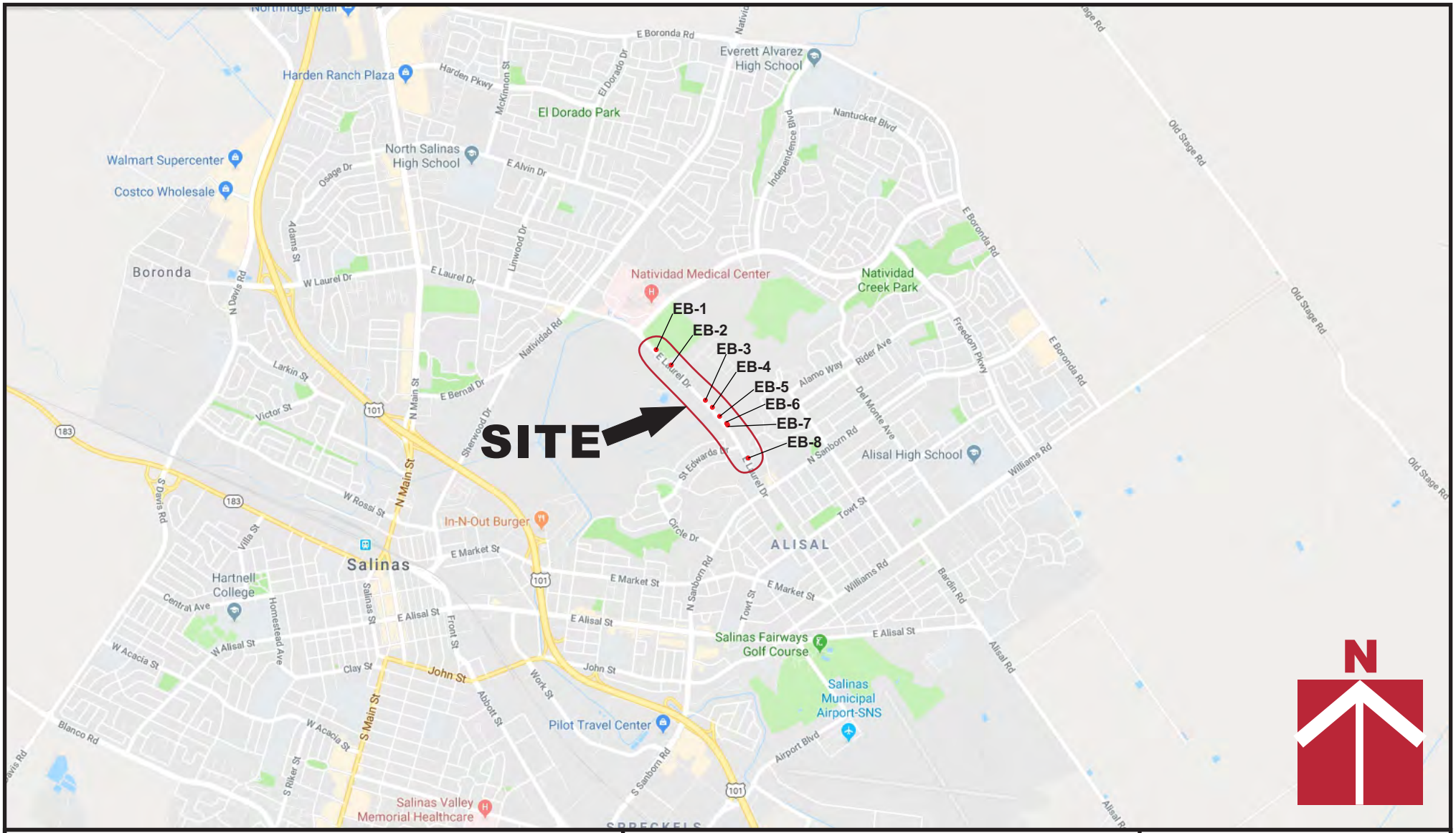


CORNERSTONE EARTH GROUP

Vicinity Map

East Laurel Drive Sidewalk Improvement
Salinas, CA

Project Number	234-36-1
Figure Number	Figure 1
Date	June 2018
Drawn By	RRN

Legend

Approximate limits of Boardwalk (Limits of improvements from K&H plans dated June 2018)

Approximate location of exploratory boring (EB)

A A' Approximate location of cross section (see Figure 4)

0 550 1,100

APPROXIMATE SCALE (FEET)

Base by Google Earth, dated 2/4/2018

Project Number 234-36-1

Figure Number Figure 2

Drawn By RRN

Date August 2018

Site Plan

East Laurel Drive Sidewalk Improvement
Salinas, CA

CORNERSTONE EARTH GROUP

SITE

Castroville
Marina
Salinas
Pacific Grove
Seaside
Gonzales
Marina Muni Airport
Salinas Muni Airport
Monterey Peninsula Airport
PRESIDIO OF MONTEREY
NPS MONTEREY
NAVY ANNEX
Salinas River
Castroville Rd
W Blanco Rd
Reservation Rd
El Camino Real
Old Stage Rd
River Rd
Monterey Salinas Hwy
Laureles Grade Rd
E Carmel
SIERRA DE SALINAS
GABILAN RANGE
997 m
1
25

Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
						ON LAND	OFFSHORE
Quaternary	Late Quaternary	Historic				Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
		Holocene	200			Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
		Pleistocene	11,700			Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Late Pleistocene age.
	Early Quaternary		700,000			Undivided Quaternary faults - most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which displace rocks of undifferentiated Pilo-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary			1,600,000			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.
			4.5 billion (Age of Earth)				

Base by USGS, California Quaternary Faults, Cooperator California Geological Survey

N

0 5 10

APPROXIMATE SCALE (MILES)

Project Number 234-36-1

Figure Number Figure 3

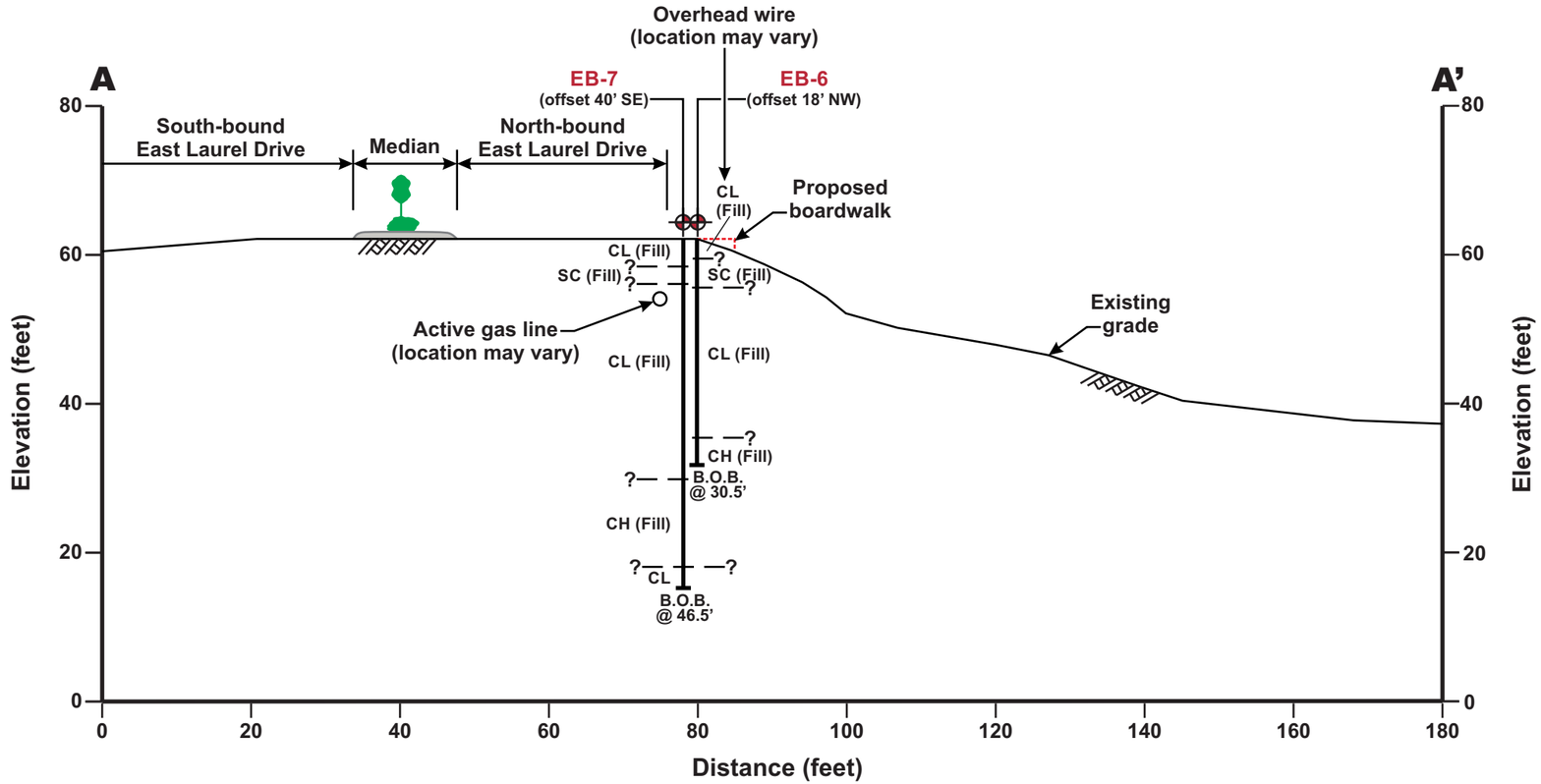
Date June 2018

Drawn By RRN

Regional Fault Map

East Laurel Drive Sidewalk Improvement
Salinas, CA

CORNERSTONE EARTH GROUP



Section A-A'

(View Looking Northwest)
1"=20' H:V

Symbols

CL	Lean Clay
CH	Fat Clay
SC	Clayey Sand
⊕	Approximate location of exploratory boring (EB)

Notes:
1) Surficial fills associated with existing pavements, landscaping or utilities are not shown.
2) The subsurface profile is conceptual and is based on limited subsurface data obtained from widely spaced borings. Actual subsurface conditions may vary significantly between borings.
3) See Figure 2 for location of cross section.

Project Number 234-36-1
Figure Number Figure 4
Drawn By RRN
Date August 2018

Geologic Cross Section A-A'

East Laurel Drive Sidewalk Improvement
Salinas, CA

CORNERSTONE EARTH GROUP

APPENDIX A: FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using track-mounted, hollow-stem, limited-access auger drilling equipment. Eight 8-inch-diameter exploratory borings were drilled on May 22 and 23, 2018 to depths of 5 to 46½ feet. The approximate locations of exploratory borings are shown on the Site Plan, Figure 2. The soils encountered were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D2488). Boring logs, as well as a key to the classification of the soil, are included as part of this appendix.

Boring locations were approximated using existing site boundaries, a hand-held GPS unit, and other site features as references. Boring elevations were based on interpolation of plan contours were not determined. The locations of the borings should be considered accurate only to the degree implied by the method used.

Representative soil samples were obtained from the borings at selected depths. All samples were returned to our laboratory for evaluation and appropriate testing. The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 2-inch O.D. split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration (ASTM D1586). 2.5-inch I.D. samples were obtained using a Modified California Sampler driven into the soil with the 140-pound hammer previously described. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 12 inches. The various samplers are denoted at the appropriate depth on the boring logs.

Field tests included an evaluation of the unconfined compressive strength of the soil samples using a pocket penetrometer device. The results of these tests are presented on the individual boring logs at the appropriate sample depths.

Attached boring logs and related information depict subsurface conditions at the locations indicated and on the date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these boring locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

OTHER MATERIAL SYMBOLS

- Poorly-Graded Sand with Clay
- Clayey Sand
- Sandy Silt
- Artificial/Undocumented Fill
- Poorly-Graded Gravelly Sand
- Topsoil
- Well-Graded Gravel with Clay
- Well-Graded Gravel with Silt
- Sand
- Silt
- Well Graded Gravelly Sand
- Gravelly Silt
- Asphalt
- Boulders and Cobble

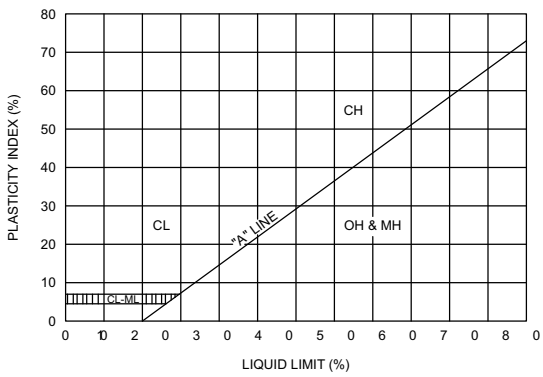
SAMPLER TYPES

- SPT
- Modified California (2.5" I.D.)
- Rock Core
- Shelby Tube
- No Recovery
- Grab Sample

ADDITIONAL TESTS

CA	-	CHEMICAL ANALYSIS (CORROSIVITY)	PI	-	PLASTICITY INDEX
CD	-	CONSOLIDATED DRAINED TRIAXIAL	SW		SWELL TEST
CN	-	CONSOLIDATION	TC	-	CYCLIC TRIAXIAL
CU	-	CONSOLIDATED UNDRAINED TRIAXIAL	TV	-	TORVANE SHEAR
DS	-	DIRECT SHEAR	UC	-	UNCONFINED COMPRESSION
PP	-	POCKET PENETROMETER (TSF)	(1.5)	-	(WITH SHEAR STRENGTH IN KSF)
(3.0)	-	(WITH SHEAR STRENGTH IN KSF)			
RV	-	R-VALUE	UU	-	UNCONSOLIDATED UNDRAINED TRIAXIAL
SA	-	SIEVE ANALYSIS: % PASSING #200 SIEVE			
	-	WATER LEVEL			

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / FOOT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	STRENGTH** (KSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.5
MEDIUM DENSE	10 - 30	MEDIUM STIFF	4 - 8	0.5 - 1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

** UNDRAINED SHEAR STRENGTH IN KIPS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST, POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION.

CORNERSTONE EARTH GROUP

LEGEND TO SOIL DESCRIPTIONS

Figure Number A-1

BORING NUMBER EB-1

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/23/18 **DATE COMPLETED** 5/23/18
GROUND ELEVATION _____ **BORING DEPTH** 20 ft.
DRILLING CONTRACTOR Cenozoic Drilling **LATITUDE** 36.693774° **LONGITUDE** -121.631196°
DRILLING METHOD Geoprobe 7822DT **GROUND WATER LEVELS:**
LOGGED BY SCO ▽ **AT TIME OF DRILLING** Not Encountered
NOTES _____ ▼ **AT END OF DRILLING** Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	0		**Lean Clay with Sand (CL) [Fill]** stiff, moist, brown to light brown, fine sand, low plasticity	8	MC-1B	94	24		
			dark brown mottles	9	MC-2B	97	22		
	5		becomes medium stiff	7	MC-3B	92	33		
			Fat Clay (CH) medium stiff, moist, dark brown to black, some organics, high plasticity						
			becomes soft	2	MC				
	10		**Lean Clay (CL)** medium stiff, moist, gray with brown mottles, moderate plasticity						
			Fat Clay (CH) soft, moist, dark brown to black, some organics, high plasticity	1	MC-5B	75	45		
	15								
			becomes medium stiff, gray	1	MC				
	20		Bottom of Boring at 20.0 feet.						
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/23/18 **DATE COMPLETED** 5/23/18
GROUND ELEVATION _____ **BORING DEPTH** 15 ft.
DRILLING CONTRACTOR Cenozoic Drilling **LATITUDE** 36.692380° **LONGITUDE** -121.629607°
DRILLING METHOD Geoprobe 7822DT **GROUND WATER LEVELS:**
LOGGED BY SCO ▽ **AT TIME OF DRILLING** 14 ft.
NOTES _____ ▼ **AT END OF DRILLING** 14 ft.

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	0		**Sandy Lean Clay (CL) [Fill]** hard, moist, brown, fine to coarse sand, fine to coarse gravel, moderate plasticity, AC fragments	20	MC-1B	110	14		
			Lean Clay (CL) [Fill] very stiff, moist, brown to light brown	16	MC-2B	102	21		
	5		some dark brown mottles	15	MC-3B	96	25		
			Fat Clay (CH) stiff, moist, dark brown to dark gray, trace fine sand, some organics, high plasticity	6	MC-4B	67	47		
	10								
▼			medium stiff, gray with brown mottles	4	MC				
	15		Bottom of Boring at 15.0 feet.						
	20								
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

>4.5

CORNERSTONE EARTH GROUP2 - CORNERSTONE 0812.GDT - 8/9/18 15:39 - P:\DRAFTING\GINT FILES\234-36-1 EAST LAUREL DRIVE SIDEWALK IMPROVEMENTS.GPJ

BORING NUMBER EB-3

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/23/18 **DATE COMPLETED** 5/23/18
GROUND ELEVATION _____ **BORING DEPTH** 15 ft.
DRILLING CONTRACTOR Cenozoic Drilling
LATITUDE 36.689221° **LONGITUDE** -121.625794°
DRILLING METHOD Geoprobe 7822DT
GROUND WATER LEVELS:
LOGGED BY SCO
AT TIME OF DRILLING Not Encountered
NOTES _____
AT END OF DRILLING Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	0		**Lean Clay with Sand (CL) [Fill]** very stiff, moist, brown to light brown, fine to medium sand, low plasticity	12	MC-1B	100	12		
				19	MC-2B	108	16		
	5		**Sandy Lean Clay (CL) [Fill]** hard, moist, light brown, fine sand, low plasticity	17	MC-3B	107	17		
			Clayey Sand (SC) [Fill] loose, moist, brown, fine to medium sand						
			Lean Clay with Sand (CL) [Fill] very stiff, moist, brown to light brown, fine to medium sand, low plasticity	22	MC-4B	107	17		
	10		**Fat Clay (CH) [Fill]** stiff, dark brown with brown mottles, high plasticity	24	MC-5B	106	12		
	15		**Poorly Graded Sand (SP)** medium dense, moist, gray-brown, fine to coarse sand						
			Bottom of Boring at 15.0 feet.						
	20								
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0
>4.5

CORNERSTONE EARTH GROUP2 - CORNERSTONE 0812.GDT - 8/9/18 15:39 - P:\DRAFTING\GINT FILES\234-36-1 EAST LAUREL DRIVE SIDEWALK IMPROVEMENTS.GPJ

BORING NUMBER EB-4

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/22/18 **DATE COMPLETED** 5/22/18
GROUND ELEVATION _____ **BORING DEPTH** 36.5 ft.
DRILLING CONTRACTOR Cenozoic Drilling
LATITUDE 36.688599° **LONGITUDE** -121.625077°
DRILLING METHOD Geoprobe 7822DT
GROUND WATER LEVELS:
LOGGED BY SCO
▽ **AT TIME OF DRILLING** 19 ft.
NOTES _____
▼ **AT END OF DRILLING** 19 ft.

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0)
	0		**Lean Clay with Sand (CL) [Fill]** very stiff, moist, brown to light brown, fine sand, low plasticity Liquid Limit = 43, Plastic Limit = 21	6	MC-1B	89	11	22		○ at 2.0
			becomes hard, dark brown mottles	12	MC-2B	101	26			>4.5 ○
	5		**Lean Clay (CL) [Fill]** hard, moist, brown, some fine sand, low to moderate plasticity	16	MC-3B	105	24			>4.5 ○
	10		becomes very stiff	17	MC-4B	101	21			○ at 3.0
	15		**Fat Clay (CH) [Fill]** very stiff, dark brown with brown mottles, high plasticity							
			Poorly Graded Sand (SP) medium dense, moist, gray-brown, fine to coarse sand	20	MC-5B	100	8			○ at 3.0
	20		**Fat Clay (CH)** stiff, moist, blue gray with brown mottles, trace organics, high plasticity	14	MC-6B	45	93			○ at 1.0
			Peat stiff, wet, black, fibrous, organics							
	25		*Continued Next Page*							

BORING NUMBER EB-4

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements

PROJECT NUMBER 234-36-1

PROJECT LOCATION Salinas, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	25		**Peat** stiff, wet, black, fibrous, organics	10	MC-7B	18	276		
	30		**Fat Clay (CH)** stiff, moist, dark gray, trace organics, high plasticity	7	MC				
	35		**Lean Clay with Sand (CL)** stiff, moist, blue gray, fine to coarse sand, moderate plasticity	7	MC-9B	106	21		
			Bottom of Boring at 36.5 feet.						
	40								
	45								
	50								

UNDRAINED SHEAR STRENGTH, ksf
- ○ HAND PENETROMETER
- △ TORVANE
- ● UNCONFINED COMPRESSION
- ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-5

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/22/18 **DATE COMPLETED** 5/22/18
GROUND ELEVATION _____ **BORING DEPTH** 30 ft.
DRILLING CONTRACTOR Cenozoic Drilling **LATITUDE** 36.687896° **LONGITUDE** -121.624329°
DRILLING METHOD Geoprobe 7822DT **GROUND WATER LEVELS:**
LOGGED BY SCO ▽ **AT TIME OF DRILLING** Not Encountered
NOTES _____ ▼ **AT END OF DRILLING** Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0)
	0		some aggregate base on surface							
			Sandy Lean Clay (CL) [Fill] hard, moist, brown to light brown, fine to medium sand, some silt, low plasticity	12	1A MC 1B	84 96	11 30			>4.5 ○
	5		**Silt with Sand (ML) [Fill]** very stiff, moist, light brown, fine sand, low plasticity	14	MC-2B	86	27			○
			Lean Clay (CL) [Fill] stiff, moist, brown, trace fine sand, moderate plasticity	13	MC-3B	89	28			○
	10									
	15		**Fat Clay (CH)** hard, moist, gray, some fine sand, high plasticity	26	MC-4B	90	31			○
			Sandy Lean Clay (CL) hard, moist, reddish brown, fine to medium sand, low plasticity	45	MC					>4.5 ○
	20		Becomes medium stiff to stiff	16	MC-6B	99	13			
	25		*Continued Next Page*							

BORING NUMBER EB-5

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements

PROJECT NUMBER 234-36-1

PROJECT LOCATION Salinas, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0)
	25		**Sandy Lean Clay (CL)** hard, moist, reddish brown, fine to medium sand, low plasticity							
			Sandy Lean Clay (CL) hard, moist, light brown, fine sand, low plasticity	28	MC					>4.5 ○
	30		Bottom of Boring at 30.0 feet.							
	35									
	40									
	45									
	50									

BORING NUMBER EB-6

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/22/18 **DATE COMPLETED** 5/22/18
GROUND ELEVATION _____ **BORING DEPTH** 30.5 ft.
DRILLING CONTRACTOR Cenozoic Drilling **LATITUDE** 36.687196° **LONGITUDE** -121.623637°
DRILLING METHOD Geoprobe 7822DT **GROUND WATER LEVELS:**
LOGGED BY SCO **AT TIME OF DRILLING** Not Encountered
NOTES _____ **AT END OF DRILLING** Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	0		8 inches aggregate base						
			Lean Clay with Sand (CL) [Fill] very stiff, moist, brown, some fine to medium sand, low to moderate plasticity	3	MC-1B	105	6		
			Poorly Graded Sand with Silt (SP-SM) [Fill] loose, moist, light brown with white, fine to coarse sand	3	MC-2B	93	18		
	5		**Lean Clay with Sand (CL) [Fill]** stiff to very stiff, moist, light brown to brown, fine sand, low to moderate plasticity	15	MC-3B	99	23		
	10		**Lean Clay (CL) [Fill]** very stiff, moist, brown with orange and dark brown mottles, trace fine to coarse sand, trace fine gravel, low to moderate plasticity	15	MC-4B	102	20		
	15		**Lean Clay with Sand (CL) [Fill]** hard, moist, light brown to brown, fine sand, low to moderate plasticity	16	MC-5B	105	23		
	20		**Lean Clay (CL) [Fill]** very stiff, moist, brown with dark brown mottles, some fine sand, moderate plasticity	12	MC-6B	98	22		
	25		*Continued Next Page*						

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-6

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements

PROJECT NUMBER 234-36-1

PROJECT LOCATION Salinas, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0)
	25		**Lean Clay (CL) [Fill]** very stiff, moist, brown with dark brown mottles, some fine sand, moderate plasticity							
			Fat Clay with Sand (CH) [Fill] very stiff, moist, dark brown with brown and gray mottles, fine sand, high plasticity	15	MC-7B	95	22			○ (3.0)
	30		Bottom of Boring at 30.5 feet.							
	35									
	40									
	45									
	50									

BORING NUMBER EB-7

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/23/18 **DATE COMPLETED** 5/23/18
GROUND ELEVATION _____ **BORING DEPTH** 46.5 ft.
DRILLING CONTRACTOR Cenozoic Drilling **LATITUDE** 36.687124° **LONGITUDE** -121.623576°
DRILLING METHOD Geoprobe 7822DT **GROUND WATER LEVELS:**
LOGGED BY SCO **AT TIME OF DRILLING** Not Encountered
NOTES _____ **AT END OF DRILLING** Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0)
	0		**Lean Clay (CL) [Fill]** brown to light brown, some fine to medium sand							
	5									
	10									
	15		**Lean Clay with Sand (CL) [Fill]** stiff, moist, brown to light brown, some fine to medium sand, moderate plasticity	12	MC-1B	101	24			○
	20									
	25		*Continued Next Page*							

BORING NUMBER EB-7

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements

PROJECT NUMBER 234-36-1

PROJECT LOCATION Salinas, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	25		**Lean Clay with Sand (CL) [Fill]** stiff, moist, brown to light brown, some fine to medium sand, moderate plasticity becomes very stiff, some dark brown mottles	15	MC				
	30		**Fat Clay (CH) [Fill]** very stiff, moist, dark brown, high plasticity						
	35		**Fat Clay (CH) [Fill]** very stiff, moist, dark brown with brown mottles, trace fine to medium sand, high plasticity	16	3A MC 3B	99 102	28 26		
	40		Liquid Limit = 94, Plastic Limit = 28 becomes blue gray to brown with red brown mottles	19	4A MC 4B	80 88	37 35	66	
	45		**Lean Clay with Sand (CL)** stiff, moist, brown with gray mottling, fine sand, moderate plasticity	14	MC-5B	92	33		
	50		Bottom of Boring at 46.5 feet.						

UNDRAINED SHEAR STRENGTH, ksf

○ HAND PENETROMETER

△ TORVANE

● UNCONFINED COMPRESSION

▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-8

CORNERSTONE EARTH GROUP

PROJECT NAME East Laurel Drive Sidewalk Improvements
PROJECT NUMBER 234-36-1
PROJECT LOCATION Salinas, CA

DATE STARTED 5/23/18 **DATE COMPLETED** 5/23/18
GROUND ELEVATION _____ **BORING DEPTH** 4.5 ft.
DRILLING CONTRACTOR N/A **LATITUDE** 36.684084° **LONGITUDE** -121.621527°
DRILLING METHOD Hand Auger **GROUND WATER LEVELS:**
LOGGED BY SCO **AT TIME OF DRILLING** Not Encountered
NOTES _____ **AT END OF DRILLING** Not Encountered

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
	0		8 inches aggregate base		GB-1		7		
			Sandy Lean Clay (CL) very stiff, moist, brown, fine to medium sand		GB				
					GB-3		18		
					GB				
					GB-5		16		
	5		Bottom of Boring at 4.5 feet.						
	10								
	15								
	20								
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

CORNERSTONE EARTH GROUP2 - CORNERSTONE 0812.GDT - 8/9/18 15:39 - P:\DRAFTING\GINT FILES\234-36-1 EAST LAUREL DRIVE SIDEWALK IMPROVEMENTS.GPJ

APPENDIX B: LABORATORY TEST PROGRAM

The laboratory testing program was performed to evaluate the physical and mechanical properties of the soils retrieved from the site to aid in verifying soil classification.

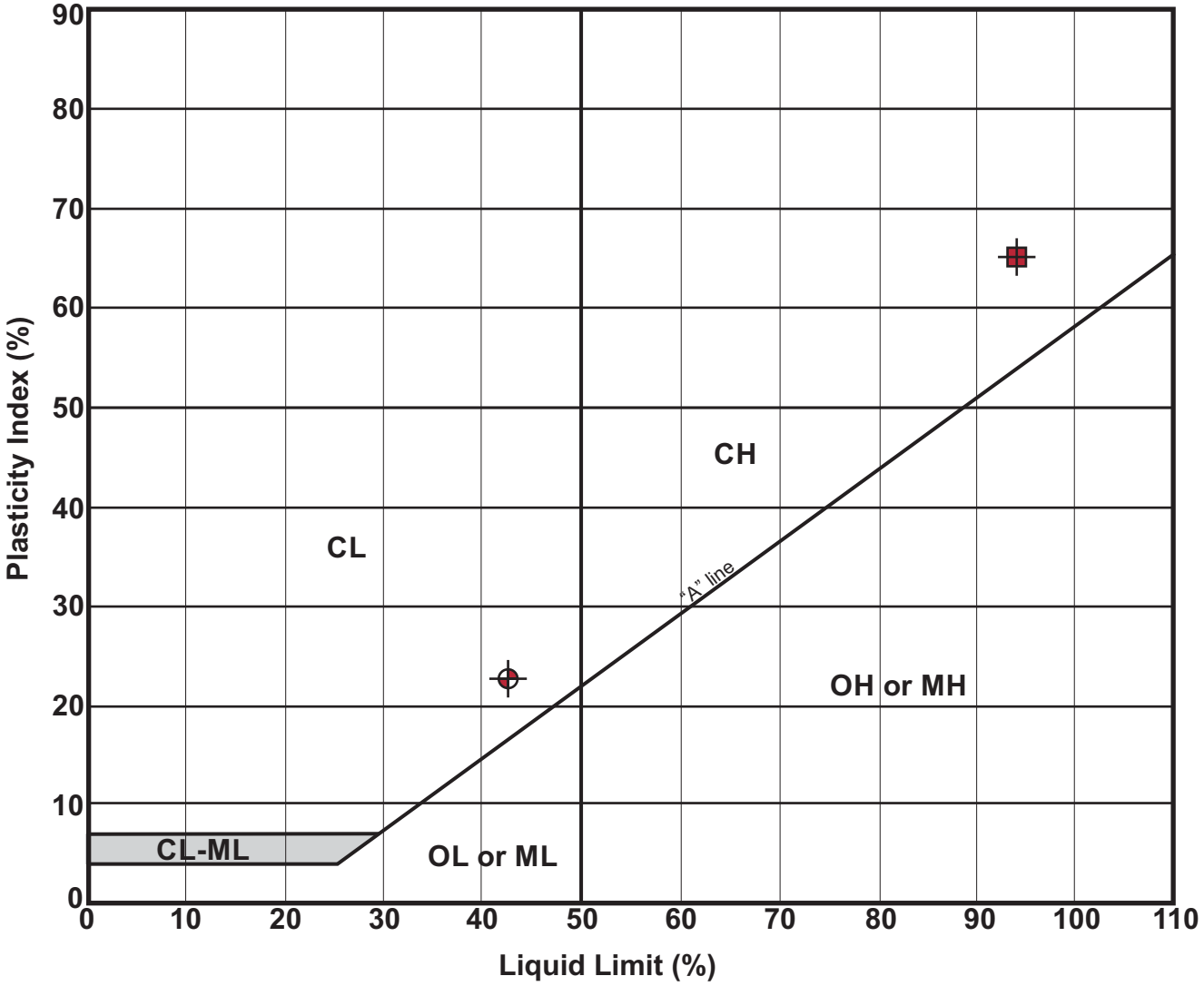
Moisture Content: The natural water content was determined (ASTM D2216) on 35 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities: In place dry density determinations (ASTM D2937) were performed on 32 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: Two Plasticity Index determinations (ASTM D4318) were performed on samples of the subsurface soils to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of these tests are shown on the boring logs at the appropriate sample depths.

Consolidated-Undrained Triaxial Compression with Pore Pressure Measurements: The undrained shear strength was determined on six relatively undisturbed sample of soil material by consolidated undrained triaxial shear strength testing with pore pressure measurements (ASTM D4767). The results of this test are included as part of this appendix.

Plasticity Index (ASTM D4318) Testing Summary



Symbol	Boring No.	Depth (ft)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing No. 200 (%)	Group Name (USCS - ASTM D2487)
⊕	EB-4	2.0	11	43	21	22	---	Lean Clay with Sand (CL) [Fill]
⊞	EB-7	40.5	37	94	28	66	---	Fat Clay (CH)

CORNERSTONE EARTH GROUP

Plasticity Index Testing Summary

East Laurel Drive Sidewalk Improvement
Salinas, CA

Project Number: 234-36-1

Figure Number: Figure B1

Date: June 2018

Drawn By: RRN

Appendix E: Hazardous Materials Constraints Evaluation

Kimley»Horn

TECHNICAL MEMORANDUM

To: City of Salinas

From: Kimley-Horn and Associates, Inc.

Date: June 8, 2018

Subject: **East Laurel Drive Pedestrian Improvement Project Hazardous Materials Constraints Evaluation**

PROJECT UNDERSTANDING

Project Location

The proposed project is located in the City of Salinas (City), Monterey County (County), California. The proposed project extends along East Laurel Drive from North Sanborn Road to Natividad Road and on Constitution Boulevard from East Laurel Drive to 350 feet west of Twin Creek Drive.

Project Description

The proposed project would include the following improvements.

- East Laurel Drive (north side):
    - Install new sidewalk with curb and gutter with a maximum depth of 2.5 feet— width as indicated—in the following areas:
        - North Sanborn Road to St. Edwards Drive (4-foot wide sidewalk)
        - End of proposed boardwalk to existing trailhead and access driveway (a total of 40 feet) (Tapering width from 6-foot to 4-foot)
        - Ranch View Lane to Constitution Boulevard (6-foot wide sidewalk)
        - Along the east side of Constitution Boulevard extending from the Laurel Dr. intersection to the drive entrance to the soccer fields (6 feet wide sidewalk)
        - East side of Constitution Boulevard from the entrance to the soccer fields northeasterly for approximately 1,700-feet (10-foot wide meandering sidewalk)
    - Install six-foot sidewalk, beginning at St. Edwards Drive and extending roughly 2,100 feet west, with a maximum depth of 30 feet. Pending geotechnical and design analysis, the design solution could include a sidewalk supported on a traditional continuous concrete retaining wall supported on drilled pier footings at approximately 20-foot spacing, or boardwalk construction supported on drilled helical anchors at 6-foot transverse spacing and 10-foot longitudinally spacing.
    - Rehabilitate the existing trailhead and concrete sidewalk and provided ADA-compliant transition from the existing trailhead and access driveway west to Ranch View Lane.
    - Install pedestrian crosswalk and ADA-complaint ramp at Ranch View Lane
    - Drainage improvements at structure between Natividad Creek Detention Basin and existing trail.
- East side of Constitution Boulevard:

    - Install new six-foot sidewalk with curb and gutter with a maximum depth of 2.5 feet from East Laurel Drive to 350 feet west of Twin Creek Drive
- Modify the traffic signal at East Laurel Drive and Constitution Boulevard and provide ADA-compliant ramps and signal warnings. All proposed improvements would fall within the existing improvements' footprint.
    - ADA-compliant ramps would have a maximum depth of 2.5 feet
    - Traffic signal modifications would have a maximum depth of 7 feet
- Install street lighting with a foundation depth of up to 12 feet within the median, south side, or along the north side of East Laurel Drive from North Sanborn Road to Natividad Road.
- Install solar LED pedestrian scale lighting with a foundation depth of 3 feet:
    - on the trail around Natividad Creek detention basis from East Laurel Drive to the connection with Garner Avenue and Gee Street.
    - on the trail at Veterans Memorial Park from East Laurel Drive north to the Gabilan Creek pedestrian bridge.

Existing Conditions

East Laurel Drive is classified as a "Major Arterial" within the City's General Plan Circulation Element. East Laurel Drive traverses a range of land uses including residential, agricultural, recreation, commercial, and medical. The north side of East Laurel Drive, between North Sanborn Road and Saint Edwards Drive, contains a gas station and residential land uses. From approximately Saint Edwards Drive to Constitution Boulevard, the Natividad Creek detention pond, an existing unpaved trail, County property which includes a pump station approximately 90 feet north of the proposed project boundary, Veterans Memorial Park, and the Constitution Soccer Complex. Between Constitution Boulevard and Natividad Road, the north side of East Laurel Drive is adjacent to the Natividad Medical Center. The south side of East Laurel Drive, between North Sanborn Road and Saint Edwards Drive, contains an automotive shop, a church, and residential land uses. Agricultural land is located to the south of East Laurel Drive between the residential land uses and Natividad Road. Natividad Creek crosses under East Laurel Drive and enters the Natividad Creek detention pond, while Gabilan Creek crosses under East Laurel Drive between Veterans Memorial Park and the Constitution Soccer Complex.

From North Sanborn Road to Constitution Boulevard, on the northern side of East Laurel Drive, are wooden utility poles with overhead utility lines; there are approximately five transformers. At Constitution Boulevard the overhead utilities transition to underground. A review of aerials and Google earth street view did not reveal any markers for underground petroleum or natural gas pipelines.

Constitution Boulevard is classified as a "Minor Arterial" within the City's General Plan Circulation Element. The proposed project extends along the east side of Constitution Boulevard from East Laurel Drive to 350 feet west of Twin Creek Drive. The west side of Constitution Boulevard contains the Natividad Medical Center, the Monterey County Jail, and residential land uses. The east side of Constitution Boulevard contains the Constitution Soccer Complex and undeveloped land. A church is located at the end of the proposed project boundary.

PROJECT CONSIDERATIONS AND PURPOSE

The purpose of this memo is to assess the likelihood of the presence of hazardous substances, such as petroleum products and agricultural residues on the project site under conditions indicative of an

existing release, past release, or a material threat of a release that could affect the project site. In addition, this memorandum is intended to identify any nearby land uses that may constrain the East Laurel Drive pedestrian improvements. If needed, this memorandum will propose additional studies to be used to determine the best course to ameliorate any known issues or recognized environmental conditions (RECs). To prepare this memorandum, Kimley-Horn used an Environmental Data Resources Inc. (EDR) database search, review of public records, a site visit, and review of aerial photographs, to identify possible areas of concern.

This assessment is ***not consistent*** with the American Society for Testing and Materials (ASTM) Standard Method E 1527-13 and should be used for planning purposes only. The information obtained, as well as recommendations for future planning actions are described in further detail below.

ENVIRONMENTAL DATABASE SEARCH

As part of this assessment, an EDR environmental database search was performed on May 24, 2018. This EDR database search included a review of numerous regulatory databases. A partial list of the databases is provided below. For a complete listing, refer to **Attachment A.**

Databases searched:

- U.S. Environmental Protection Agency's National Priorities List,
- Comprehensive Environmental Response Compensation, and Liability Information System,
- Resource Conservation and Recovery Information System (several databases) including information on treatment, storage, and disposal facilities for hazardous materials and wastes, and
- Emergency Response Notification System (ERNS),
- Leaking Underground Storage Tank Incident Report (LUST).

Database searches were performed on a radius from the center of the alignment of East Laurel Drive and Constitution Boulevard for the length of the proposed project.

RECORD SEARCH SUMMARY

The EDR report identified a total of 60 records within the one-mile prescribed radii. The EDR report did not show the overhead utility lines along East Laurel Drive and did not indicate a power transmission line that crosses East Laurel Drive approximately 600 feet east of Ranch View Lane. No underground pipelines or buried utility lines were identified.

There are 20 records pertaining to 11 sites that are adjacent to the project site. Any sites that have experienced a hazardous materials spill or site that uses or handles hazardous materials were outside the project boundaries. These sites were evaluated for their potential to affect the construction and operation of the proposed project. Of these sites, one was found to represent a REC in that there had been a spill and because of the spill there is the potential for contamination of the project site from a past release. One site, 705 Sanborn Road, is located adjacent to the northeast project boundary and is included below. The remaining locations were found not to pose a risk to human health and safety either during construction or during operation of the proposed project. The location, name, EDR Map

Identification, and risk to the proposed project, of these sites are identified and discussed in additional detail below.

Adjacent Sites

705 Sanborn Road Shell Gas Station (Records D14, D15, D16, D17, D18, D19, D20, D21**)** - This site is identified by the EDR report in the LUST, HIST UST, UST, HAZNET, CAL FID UST, EDR Hist Auto, Resource Conservation and Recovery Act Small Quantity Generator (RCRA-SQG), SWEEPS UST, FINDS, Enforcement & Compliance History Information (ECHO), and CUPA databases. The location is shown in the lists as typical of those indicating a gas station that stores, dispenses, and handles hazardous fuels, solvents, and oils as part of daily operations, and is shown as an active small quantity generator of hazardous materials. These uses and associated listings are common for gas station facilities. The site has a record of a leaking underground gasoline storage tank. The leak was reported in 1998 and remediation using exaction was begun in 2002 and the site was monitored through 2010 when it was listed as Open – Site Assessment. An Open Site Assessment can include but is not limited to 1) identification of the contaminants and the investigation of their potential impacts; 2) determination of the threats/impacts to water quality; 3) evaluation of the risk to humans and ecology; 4) delineation of the nature and extent of contamination; 5) delineation of the contaminant plume(s); and 6) development of the Site Conceptual Model (SWRCB, 2010). Other than the listed leak, there are no other violations listed. The easternmost portion of the proposed project is adjacent to the gas station is approximately one foot lower in elevation. Construction activities of the proposed project, however, only include eight-foot sidewalk improvements and substantial excavation will not be needed. However, the potential existing that contaminated soil may be uncovered and disturbed during construction. Because of the proximity to the proposed project and because the gas station site has not been fully remediated, this is considered a REC and the potential risk is considered moderate (SWRCB, 2018). Prior to ground disturbing activities for the sidewalk improvements within the easternmost portion of project area, it is recommended that soils be tested within the area of disturbance and a mitigation plan be developed if needed.

867 East Laurel Drive – Verizon Wireless Natividad (Record: A1, and A5) - This site is identified by the EDR report in the Certified Unified Protection Agency (CUPA) list and Facility Index System (FINDS) database from 2015. This listing does not identify any violations and appears to be related to Site A5. There are no associated violations and there is no risk to the proposed project.

867 East Laurel Drive – Located in Fenced Yard at Salinas High School ROP (Record A2) - This site is identified by the EDR report in the Facility Index System (FINDS) database from 2006. This identified a site within a fenced yard and indicates the presence of a United States Environmental Protection Agency (ES EPA) air quality monitoring system. There are no associated violations and there is no risk to the proposed project.

867 East Laurel Drive – Salinas Union High School District (SUHSD) Mission Trails (Record A3) - This site is identified by the EDR in the Hazardous Waste Information System (HAZNET) database from 1994. This school district facility is located approximately 500 feet north of the project site and refers to the handling of photo chemicals and photo processing waste. There are no associated violations and there is no risk to the proposed project.

867 East Laurel Drive – Mission Trails ROP Center (Record A4) - This site is identified by the EDR report in the Facility Index System (FINDS) database from October 2015. There are no associated violations, and there is no risk to the proposed project.

867 East Laurel Drive – Mission Trails ROP Center (Record A5) - This site is identified by the EDR report in the Facility Index System (FINDS) database. There are no associated violations, and there is no risk to the proposed project.

867 East Laurel Drive –Mission Trails ROP (Record A6) - This listing is identified by the EDR report in the Hazardous Waste Information System (HAZNET) database from 2007. This school district facility is located approximately 500 feet north of the project site and refers to the handling of waste oil, mixed oil, and unspecified oil-containing waste and asbestos containing waste. This appears to be in reference to the presence of a school related auto shop. There are no associated violations and there is no risk to the proposed project.

967 East Laurel Drive – Mission Trails ROP Center (Record B7) - This site is identified by the EDR report in the CUPA listing from March 2017. This listing appears to be related to A6 above, and refers to payment of fees for the disposal of waste oil. There are no associated violations and there is no risk to the proposed project.

1441 Constitution Boulevard Natividad Medical Center (Records C8, C9, C11, C12, and C13) - This site is identified by the EDR report in the California Hazardous Materials Incident Reporting System (CHMIRS), HAZNET, and CUPA databases. These incidents refer to the current use, storage, and transfer of waste oil, unspecified oil-containing waste, nonchlorinated safety solvents, incineration of laboratory waste chemicals, associated with hospital operations and a 2011 incident in which a blockage in the main sewer line led to a release of sewage from a manhole into the storm drain. The release was contained and recovered from the storm drain. There are no other listed violations and there is no risk to the proposed project.

855 East Laurel Drive (Record 10) - This site is identified by the EDR report in the California Integrated Waste Quality System Project (CIWQS) database. This listing refers to an industrial terminal and service facility for motor vehicle passenger transport. The listing shows that the site is regulated under un INDSTW and that it was terminated on November 14, 2016. Prior to that time, it appears there were two violations and two enforcement actions in five years. The nature of the violations is not listed and is not expected to be a risk to the proposed project.

855 East Laurel Drive (Record I41, I42, I43, I44, I45, I46) - This site is identified by the EDR report in the Underground Storage Tank (UST) list, Hazardous Substances Storage Container Database (HIST UST), Waste Discharge System (WDS), Leaking Underground Storage Tank (LUST), above ground storage tank (AST), CUPA listing, registered waste tire haulers listing (HAULERS), statewide environmental evaluation and planning system (SWEEPS) UST, and California Facility Inventory Database (CA FID) UST. This site is actively used as a Monterey County fleet management site, for vehicle storage, and fueling and maintenance for vehicles. These listings reflect that the site uses and generates materials that would are potentially hazardous such as oils, and solvents, waste oils, fuels, cleaners, etc. The listings also indicate that the site contains an underground storage tank installed in

1975. This tank is shown as posing a minor threat to water quality. The site also contains two above ground storage tanks, one is 1,750-gallons, and the other is 20,000-gallons. There are no known spills from these tanks and they are monitored by the Monterey CUPA. In July 1998, there was a leak of gasoline discovered from one of the on-site underground storage tanks. In February 1999 remediation by excavation began. Since that time the case remains open and the area continues to be monitored. As of January 2013, this case is listed as "Open – Verification Monitoring". Based on the State Water Resources Control Board "Open – Verification Monitoring" applies to a site in which remediation phases are essentially complete and a monitoring/sampling program is occurring to conform successful completion of the clean-up efforts (SWRCB, 2013; and SWRCB, 2018). Based on the nature of the site and status of the known spill, the risk to the proposed project is considered low.

Nearby Sites

In addition to the above listed sites, there are two other locations within 0.25 miles of the proposed project that have a history of hazardous materials spills or use hazardous materials that may affect the project site.

920 Acosta Place - Carlin's Fire Extinguisher (Record F31, F32, F33) - This site is identified by the EDR report on the LUST, HIST UST, CUPA listing, HIST Cortese, SWEEPS UST, CA FID UST. The case was opened in 1988 and consistent of a leaking underground storage tank. The case was closed in 12/22/1989. This site is located approximately 250 feet northeast of the proposed project and is located in a residential neighborhood. Based on the approximately 18 years since the leak and because the case was closed there does not appear to be a risk to the proposed project.

745 N Sanborn Road - American Bakeries Company (Records H38 and H39) - This site is identified by the EDR report on the HIST UST and LUST Cleanup Site. The is listing for the American Bakeries Company but the business at the location is the Bread Box Recreation Center. The records show that the site is shown to have an underground storage tank and there is a record of a LUST listed as Open Inactive as of August 18, 2015. An Open-Inactive listing designates a site in which no regulatory oversight activities are being conducted by the Lead Agency (SWRCB, 2018). This site is located approximately 525 feet northeast of the easternmost project area. Based on the listing and lack of current oversight the risk to the proposed project is considered low. Soil testing and development of a mitigation plan, as discussed above, would reduce all potential risks from this site.

Other Sites

There are 11 other sites within 0.25 miles of the eastern boundary of the proposed project; these sites are either sufficiently distanced from the project site or the violations are such that the risk to the proposed project does not exist or is remote. These sites are mostly associated with auto repair and tire services or gasoline fueling stations. None of the automobile related sites are listed with any violations. There are two sites shown to have a history of agricultural use; one is listed as having no violations and the other is shown in a listing from 1999 as inactive but needing evaluation. A Walgreens store is listed but no violations are shown.

Other Land Use Considerations

Salinas Municipal Airport

The Salinas Municipal Airport (Airport) is located in the southeastern portion of the City and is a general aviation airport serving single and twin-engine aircraft as well as helicopters (City of Salinas, 2002). The proposed project is located approximately two miles northwest of the Airport. As discussed in the Salinas Municipal Airport Land Use Plan (SMALUP), the Airport was built during World War II (WWII) but was eventually phased out and deeded to the City. The Airport is open to public use and operates two asphalt runways, runway 8/26 which is oriented east to west away from the project proposed, and runway 13/31 is oriented northwest to southeast and in the direction of the proposed project (Airnav, 2018).

In 1973 the Airport Land Use Commission (ALUC), in a cooperative effort with the City of Salinas Community Development Department (SCDD), developed the Airport Area of Influence (AAI), which defines the boundaries of the jurisdiction of the ALUC. The AAI includes land and structures which could affect or be affected by airport activities and considers, airport building restrictions and zone(s), imaginary aircraft approach surfaces, local flight patterns, aircraft noise, natural features, airport-related accessible land, and airport peripheral roads (SCDD, 1982).

In addition to the SMALUP, the 2006 City of Salinas General Plan discusses the AAI and defines the boundaries. The AAI is reflected on the City of Salinas zoning map and is called out as an Airport Overlay District. The AAI and Overlay District is irregularly shaped and covers undeveloped agricultural lands to the south and east, largely residential areas to north, a portion of the project site to the northwest, and industrial uses to the southwest. Within the AAI, there are more restrictive zones that define height limits on structures. In these zones the structures are not permitted to exceed a certain height or, "imaginary surface." These zones include the Primary Surface Building Restriction Zone, Other Imaginary Surface Zones including the horizontal surface, conical surface, approach surface, and transitional surface. The Clear Zones are located at the end of each runway and no structure of any kind is allowed in these areas. Lastly, the VORTAC Building Restriction Area is part of the airports Air Navigation system and is located on the east side of the runway (SCDD, 1982).

In relation to the proposed project, the AAI includes the southeastern end of the proposed project at the Sanborn Road intersection with East Laurel Drive. The AAI then extends northwest to St. Edwards Drive, covering approximate 0.25 miles of the project site. The remainder of the approximate one mile of improvements are outside the AAI. Although the proposed project is located within the AAI, it is not located in a building restriction area or other zone defined by an imaginary surface. The corner of Sanborn Road and East Laurel Drive is approximately 0.7 miles northeast of the closest airport runway protection zone.

The proposed project consists of pedestrian and lighting improvements and would not include the construction of any buildings. The proposed project would not violate any height restrictions associated with the AAI or other imaginary surface restriction. Although the proposed project may induce some people to utilize the sidewalk improvements within the AIA, the potential for health and safety impacts

from any associated airport operation to these users is considered remote and would not be any different from the existing conditions.

Conclusion

This assessment identified potential environmental concerns adjacent or in close proximity to the proposed project. Only one site, the existing Shell gas station at 705 Sanborn Road, would be considered an REC of concern to the proposed project. The other sites identified above are at a substantial distance, have no violations associated with the property, or remediation was completed or at a level that the potential to affect the project is low or very low and those parcels are not considered environmental concerns for the proposed improvements.

For the site at 705 Sanborn Road, it is recommended that if construction would occur to a depth that encounters native soils, soil sampling shall be conducted to determine if hazardous materials are in the area to be excavated. If, during construction activity, regardless of depth, discolored soils or unusual odors are encountered, work shall stop immediately and an evaluation of the soils shall be made to determine if any hazardous materials are present in the subsurface soils. If materials are located, it is recommended that a mitigation plan be developed in order to address the potential areas of concern.

Attachments:

Attachment A – Environmental Data Resources Database Report

Attachment A
Environmental Data Resources Database Report
(on file at the City of Salinas)