DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

FOR THE

ADOBE ROAD AND MAIN STREET INTERSECTION IMPROVEMENTS PROJECT

August 2023

Prepared For:

County of Sonoma
Public Infrastructure Department
2300 County Center Drive, Suite B100
Santa Rosa, CA 95403

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1.0 INTRODUCTION & PURPOSE

1.1 Purpose and Scope of the Initial Study

This IS/MND has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section (§) 21000 et seq.) and its Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.), to evaluate the potential environmental effects associated with the construction and operation of the Adobe Road and Main Street Intersection Improvements Project (proposed project). Pursuant to Section 15367 of the State CEQA Guidelines, the County of Sonoma (County) is the lead agency for the proposed project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an IS/MND can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant, and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

1.2 Summary of Findings

Section 4.0 of this document contains the Environmental Checklist that was prepared for the proposed project pursuant to CEQA requirements. The Environmental Checklist indicates whether the proposed project would result in no impact, less than significant impacts, less than significant impacts with the implementation of mitigation measures, or potentially significant impacts. These impacts are identified and discussed within each subsequent resource area throughout this document.

Based on the environmental checklist (Section 4.0) completed for the proposed project and supporting environmental analyses, the project would primarily result in no impact or a less than significant impact to environmental issue areas identified in Section 4, Environmental Analysis. The project's impacts on the following issue areas would be less than significant with mitigation incorporated: Biological Resources, Cultural Resources, Geology and Soils, and Tribal Cultural Resources. All impacts would be less than significant after mitigation.

As set forth in the State CEQA Guidelines Section 15070 (Decision to Prepare a Negative or Mitigated Negative Declaration), a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

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

(b) The initial study identifies potentially significant effects, but:

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

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

This IS/MND contains and constitutes substantial evidence supporting the conclusion that preparation of an EIR, or other more involved environmental document is not required prior to approval of the project by the County.

1.3 Initial Study Public Review Process

A Notice of Intent (NOI) to adopt the MND based on State CEQA Guidelines § 15072, was prepared and submitted to the State Clearinghouse for filing and circulation. The document was made available for a 30-day public review period. During this time the public, interested parties, stakeholders, and any state or local agency could provide comment on the document. The IS/MND may be viewed at the County of Sonoma's website at the following link: https://permitsonoma.org/divisions/planning/planningdocumentlibrary, on the State Clearinghouse website, or at the County of Sonoma, Sonoma Public Infrastructure Department, located:

Sonoma Public Infrastructure
2300 County Center Drive,
Suite A220
Santa Rosa, CA 95403

Written comments on the IS/MND should reference the "Adobe Road and Main Street Intersection Improvements Project," and be addressed to the Lead Agency at the following address:

County of Sonoma Public Infrastructure
Attn: Hunter McLaughlin, Assistant Engineer
2300 County Center Drive,
Suite A220
Santa Rosa, CA 95403
Or,

Hunter.McLaughlin@sonoma-county.org

The County of Sonoma as the Lead Agency for this project, will consider comments received and in accordance with (State CEQA Guidelines § 15074(b)), decide whether to adopt the IS/MND prior to taking action to approve the project. If the IS/MND is adopted and the proposed project is approved, the County also will adopt the MMRP, which will detail the mitigation measures, timing of mitigation implementation, and list the responsible parties.

1.4 Report Organization

This document has been organized into the following sections:

Section 1.0 – Introduction. This section provides an introduction and overview describing the conclusions of the Initial Study.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Evaluation. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 5.0 – References. The section identifies resources used to prepare the Initial Study.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Project Overview

The proposed project would construct intersection improvements (proposed project), at the Adobe Road and Main Street intersection in the community of Penngrove in unincorporated Sonoma County. The purpose of the project is to improve intersection operations and reduce travel time delay, improve pedestrian accessibility, and enhance overall safety at the intersection.

2.2 Project Location

Regional Vicinity

The community of Penngrove is located within a southern unincorporated portion of Sonoma County between Cotati and Petaluma. Penngrove encompasses approximately 4 square miles at the foot of the western flank of Sonoma Mountain. The Northwestern Pacific Railroad (portion Navato to Santa Rosa) runs north/south though the community of Penngrove. Penngrove is bordered on the north by the incorporated City of Cotati, on the east by Sonoma Mountain, on the south by Petaluma, and on the west by U.S. Route 101, which runs north/south. Please see **Figure 2-1: Regional Map**. The project site is depicted on the Cotati quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series. See **Figure 2-2: USGS Topographic Map.**

Local Vicinity

The project site is located in the central portion of Penngrove. The project is located at the intersection of Adobe Road and Main Street in Penngrove. Adobe Road is an east-west major collector roadway with a posted speed limit of 40 mph within the intersection area. Heading north from Adobe Road is Petaluma Hill Road, a major collector roadway with a posted speed limit of 40 mph. Running south of Adobe Road is Main Street, a major collector roadway with a posted speed limit of 25 mph. The Penngrove Elementary School located in the northwest quadrant of the project intersection.

Within the intersection, three crosswalks are present on the north, south and west legs. There are two existing Sonoma County Transit bus stops located on both sides of Main Street south of the intersection. On-street parking is located on the west side of Main Street approximately 100 feet south of the existing crosswalk. An existing midblock crossing is located approximately 600 feet west of the intersection on Adobe Road. Please see **Figure 2-3: Vicinity Map.**

The project would also result in permanent right-of-way (ROW) acquisition of approximately 0.035 acres and a temporary construction easement (TCE) of approximately 0.069 acres of APN 047-191-047. The APN, address, acreage, right-of-way acquired, temporary construction easement, existing land uses, and description of the acquired property are shown in **Table 2-1: Project Parcels and Acquisition Areas** and **Figure 2-4: Project Acquisition Areas.**

Table 2-1: Project Parcels and Acquisition Areas

APN and Address	Acres	ROW/TCE/RIGHT Acquired	Existing Zoning	Existing Land Uses	Description of Acquired Property
047-191-047 8924-8930 Petaluma Hill Rd, Penngrove, CA 94951	0.98	0.035 acres (ROW) 0.069 acres (TCE)	Rural Residential (RR)	Rural Residential	Undeveloped land and creek

2.3 Environmental Setting

Regional Setting

Regionally, the community of Penngrove is located in northern California and approximately 35 miles north of San Francisco and approximately 11.5 miles west of Sonoma. Penngrove is part of the North Bay subregion of the San Francisco Bay Area. The project site is located in Planning Area 7 – Rohnert Park - Cotati and Environs and within the Penngrove Area Plan. Hydrologically, the project site is within the Petaluma River Watershed within the San Francisco Bay Region. The watershed is characterized by the Petaluma River which flows to the south to the San Pablo Bay and ultimately the Pacific Ocean.

Local Setting

The project site is located at the intersection of Adobe Road and Petaluma Hill Road/Main Street in Penngrove, a census-designated place in Sonoma County, California. Residential uses are dominate throughout Penngrove. Specifically, within the project area, land uses include urban residential, rural residential, public and limited commercial. The project site is bordered by Penngrove Elementary School to the northwest, residential development to the northeast and southwest, and commercial development to the southeast. The project site is characterized as being highly disturbed and develop and consists primarily of two major thoroughfares— Adobe Road and Petaluma Hill Road/Main Street—and their respective roadway shoulders. The project site is comprised of ruderal/developed, non-native annual grassland, and riparian woodland communities.

The project site is predominately flat and slightly slopes from northeast to southwest. Elevation on the project site ranges from 84 to 120 feet above mean sea level. Two (2) aquatic features occur on or immediately adjacent to the project site. These features consist of a roadside ditch along Adobe Road, west of the intersection with Petaluma Hill Road/Main Street, and an unnamed intermittent drainage that flows northeast to southwest beneath Adobe Road and Petaluma Hill Road/Main Street.

Existing Transportation Network

Adobe Road is an east-west major collector roadway with a posted speed limit of 40 mph within the intersection area. Heading north from Adobe Road is Petaluma Hill Road, a major collector roadway with a posted speed limit of 40 mph. Running south of Adobe Road is Main Street, a major collector roadway with a posted speed limit of 25 mph.

The existing conditions at the Adobe Road and Main Street intersection include travel time delay and queuing due to insufficient intersection capacity. In addition, the intersection does not meet the latest

Americans with Disabilities Act (ADA) requirements and lacks efficient and safe pedestrian and bicycle circulation.

Land Use Designation and Zoning

Figure 2-3: Vicinity Map, shows the project intersection and roadways on an aerial, and **Figure 2-4: Project Acquisition Areas**, shows the project site and portions of adjacent parcels that would be acquired, or have improvements made, as well as areas needed for temporary construction easements. A description of parcels included in the project is shown above in **Table 2-1: Project Parcels and Acquisition Areas**.

2.4 Proposed Project

The proposed project would make transportation intersection improvements at the Adobe Road and Main Street intersection and within portions of adjacent parcels as shown in **Table 2-1** above. The proposed project would address travel time delay and queuing due to insufficient intersection capacity, Americans with Disabilities Act (ADA) pedestrian facility requirements, and pedestrian and bicycle circulation. The proposed project would include the following intersection improvements:

- Construct a dedicated westbound to northbound right-turn lane on Adobe Road at the northeast quadrant
- Construct a dedicated northbound to westbound left-turn lane on Main Street (south leg)
- Construct pedestrian curb ramps and install signal equipment that comply with ADA
- Construct signal improvements and evaluate signal phasing and timing
- Construct dedicated class 3 bike lane

Within the intersection, three crosswalks are present on the north, south, and west legs. There are two existing Sonoma County Transit bus stops located on both sides of Main Street, south of the intersection, that would remain. The existing on-street parking on the west side of Main Street approximately 100 feet south of the existing crosswalk may be affected by this project. An existing midblock crossing located approximately 600 feet west of the intersection on Adobe Road would remain.

In order to minimize impacts to existing wetland areas and private properties, a retaining wall is proposed on the north side of Adobe Road, east of the intersection, to accommodate the roadway widening for a dedicated right-turn lane. The existing box culvert running through the intersection would be extended at the northeast corner as part of the intersection widening. Overhead utilities would be relocated to accommodate the retaining wall construction. The project would modify the existing signal, pave the intersection, and install pavement delineation and markings. Additional right-of-way would be required in the northeast corner of the intersection to accommodate the construction the proposed dedicated westbound right-turn lane and retaining wall. See **Figure 2-5: Project Improvement Plans**, provides a graphic representation and location of the proposed improvements.

Stormwater

The proposed project would include new stormwater facilities to contain stormwater flows, promote water infiltration, and reduce potential for increased downstream stormwater flows.

Utilities

The proposed project, as needed, would tie into existing utilities for electrification of the new signals, streetlights, and other roadway and railroad crossings. The project does not propose any tie into existing water, sewer, or gas facilities because the project does not include new land uses. The proposed project would realign the above ground utility lines and poles adjacent to the new roadways.

Project Construction

Project construction would occur in one phase and occur over a period of 12 months, beginning in the 2nd quarter of 2025. The project would involve grading of 610 cubic yards of soil including 610 cubic yards of import.

Some demolition, excavation, and grading would be required for this project. Equipment that may be used to accomplish project work is listed below. Some excavation to a maximum depth of 14 feet for the installation of traffic signal poles, six feet for the drainage feature, and four feet for road widening would be required only where these project elements are proposed.

- Bobcat/Skid Steer Loader
- Compactor (ground)
- Concrete Mixer Truck
- Concrete Saw
- Crane or Bucket truck
- Dozer/Grader/Excavator/Scraper
- Gradall (multi-purpose excavator)
- Jackhammer
- Pavement Scarifier/Roller
- Pneumatic Tools
- Truck (Dump/Flat Bed)

2.5 Project Approvals

The proposed project would require the following approvals:

- Improvement Plans
- Regulatory Wetlands Permit

Source: ESRI, 2023

Figure 2-1: Regional Map

Adobe Road and Main Street Intersection Improvements Project
Initial Study/Mitigated Negative Declaration

Not to scale

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Source: USDOI & USGS, 2023

Figure 2-2: USGS Topographic Map

Adobe Road and Main Street Intersection Improvements Project

Initial Study/Mitigated Negative Declaration

Not to scale

Source: ESRI, 2023

Figure 2-3: Vicinity Map

Adobe Road and Main Street Intersection Improvements Project
Initial Study/Mitigated Negative Declaration

Not to scale

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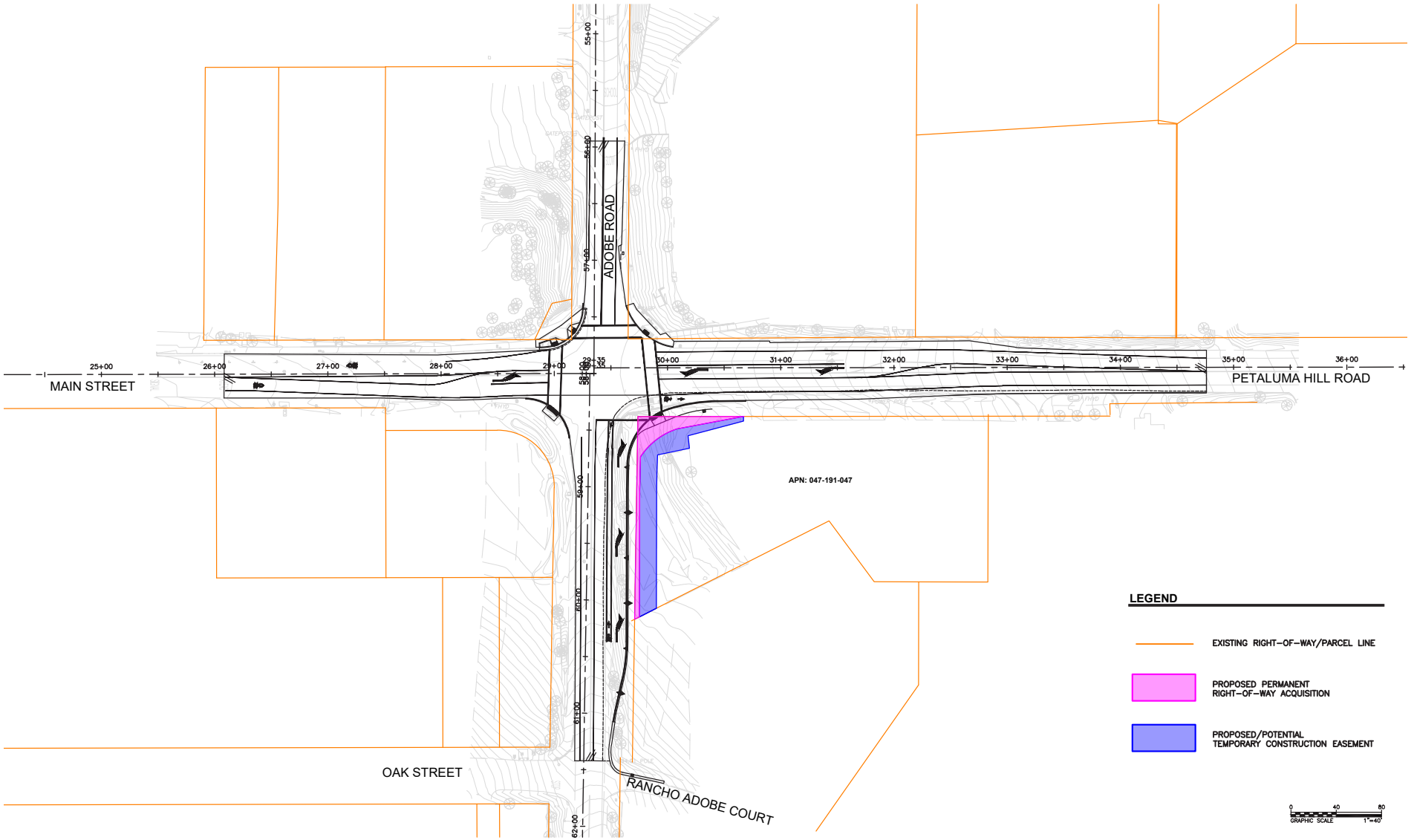

Figure 2-4: Project Acquisition Area

Adobe Road and Main Street Intersection Improvements Project
Initial Study/Mitigated Negative Declaration

Not to scale

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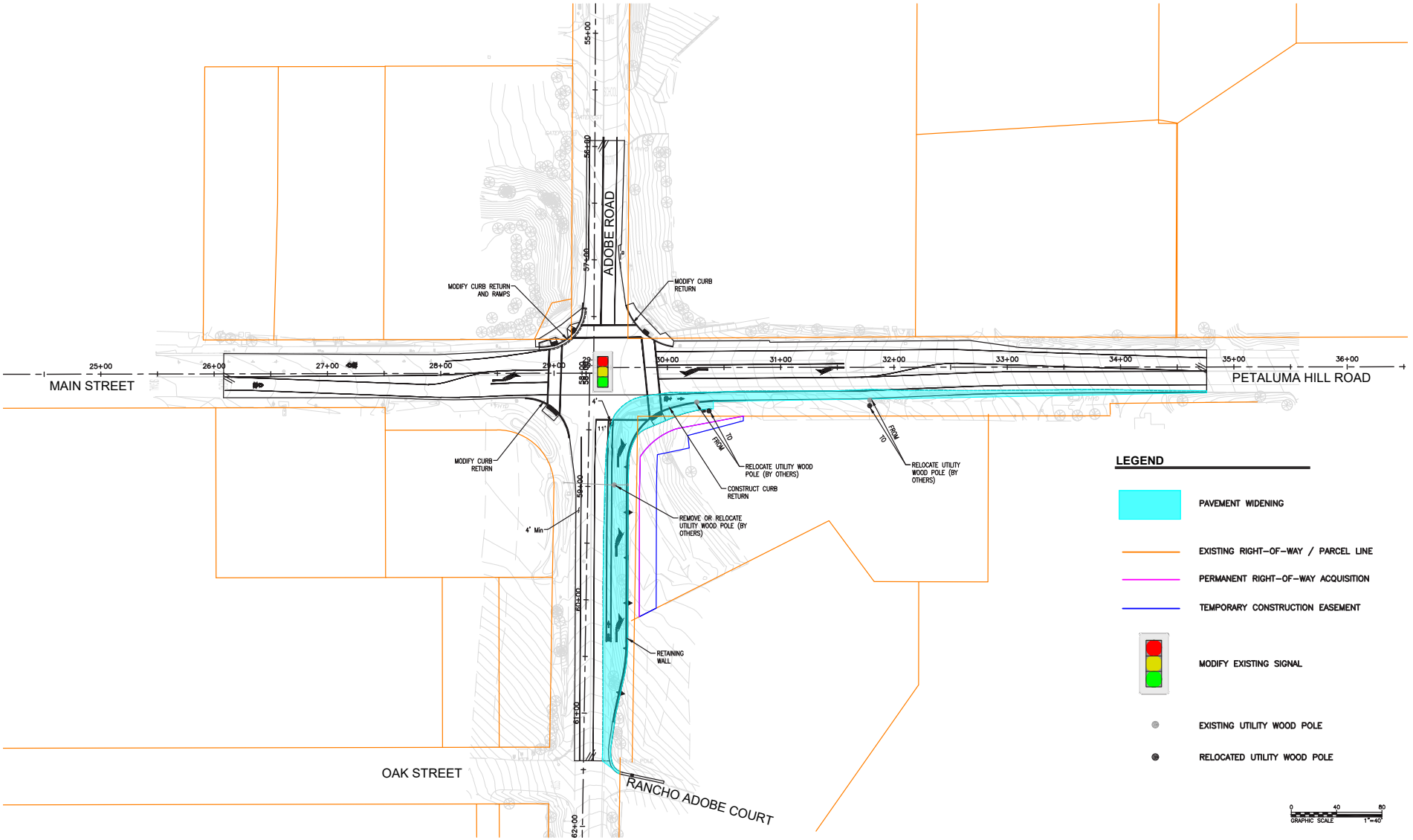

Figure 2-5: Project Improvement Plans

Adobe Road and Main Street Intersection Improvements Project
Initial Study/Mitigated Negative Declaration

Not to scale

Kimley»Horn

3.0 INITIAL STUDY CHECKLIST

NOTE: The following is a sample form that may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. **Project title:**

Adobe Road and Main Street Intersection Improvements Project

2. **Lead agency name and address:**

Sonoma County Public Infrastructure Department

3. **Contact person and phone number:**

Hunter McLaughlin, Assistant Engineer
2300 County Center Drive,
Suite A220
Santa Rosa, CA 95403
(707) 565-1757

4. **Project location:**

Adobe Rd and Main Street Intersection

5. **Project sponsor's name and address:**

Sonoma County

6. **Zoning:**

County ROW, Rural Residential (RR), Public Facilities (PF), Limited Commercial (LC)

7. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

The proposed project would construct intersection improvements (proposed project), at the Adobe Road and Main Street intersection in the community of Penngrove in unincorporated Sonoma County. The purpose of the project is to improve intersection operations and reduce travel time delay, improve pedestrian accessibility, and enhance overall safety at the intersection. See Section 2.4, Proposed Project, above for further breakdown of the proposed improvements.

8. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

The land uses surround the project intersection include an elementary school, undeveloped land, and an intermittent drainage.

9. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

United States Army Corps of Engineers (404 Clean Water Act Permit)
California Department of Fish and Wildlife (Section 1600 Lake and Streambed Alteration Agreement
Regional Water Quality Board (Section 401 Water Quality Certification)

10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On February 22, 2023 the following tribes were contacted regarding the proposed project. Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Federated Indians of Graton Rancheria, Guidiville Indian Rancheria, Lytton Rancheria, Middletown Rancheria, Middletown Rancheria of Pomo Indians, Mishewal-Wappo Tribe of Alexander Valley, Pinoleville Pomo Nation, and Robinson Rancheria of Pomo Indians. At the time of preparation of this document the Graton Rancheria Tribe has requested formal consultation.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify, and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3I contains provisions specific to confidentiality.

4.0 ENVIRONMENTAL ANALYSIS

Environmental Factors Potentially Affected by the Project

The environmental factors checked below would be potentially affected by this project, involving impacts identified “s "Less Than Significant with Mitigation Incorpora”ed" as indicated by the checklist on the following pages. No environmental factors were identified as “Potentially Significant Impact.”

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

Determination

On the basis of this initial evaluation:

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

_____ _____

Signature *Date*

4.1 Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			**X**	
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			**X**	
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?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

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

Less than Significant Impact. The Sonoma County General Plan Scenic Resources of the Open Space and Resource Conservation Element designates scenic resources within the County as Community Separators, Scenic Landscape Units, and Scenic Highway Corridors. The project site is currently designated as within a Community Separator, which does not affect underlying land use designations or allowable land uses (Sonoma County, 2020).

Under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. A vista is a view from a particular location or combination of locations and a scenic vista combines an aesthetically pleasing aspect, often natural, to the vista. Examples of scenic vistas can include mountain ranges, valleys, ridgelines, water bodies, or visually important trees, rock outcroppings, or historic buildings. While a scenic vista may be formally designated, they can be informal public views. Changes in the viewshed are typically discussed in terms of foreground, middleground, and background views. An adverse effect to a scenic vista may result from a degradation of an existing vista or the loss of access to an existing viewpoint.

Impacts to scenic resources occur when changes to a site have an effect on these resources directly or impact the availability of views to such resources. The proposed project is located within Adobe Road and Main Street at a signal-controlled intersection in an area characterized by commercial, residential, school, and utilities (e.g., overhead powerlines). Proposed improvements would widen the roadways, install ADA signal equipment, make signal improvements, make pedestrian improvements, and install a retaining wall.

The project would introduce new visual elements to the project site, but the changes to the visual environment would be consistent with existing uses and roadway infrastructure in the project area and would not be considered a substantial alteration. The proposed project would not significantly impact any scenic vista. There is potential for relocation of overhead utilities, which would be above ground level and extend upward from ground level and be visible in the skyline from closer viewing angles. These elements would not be dissimilar to the existing power poles, power lines, and streetlights.

The proposed project does not include any other elements that would be elevated and have the potential to affect any distant views or a the local viewshed. The proposed project would be consistent with the existing visual environment and is an extension of existing uses. Thus, the proposed project would not result in a substantial alteration to the existing visual character of the site or its surroundings. Impacts would be less than significant and no mitigation is required.

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

Less than Significant Impact. The project site is not located within a scenic highway. There are two officially designated scenic highway segments in the County including portions of State Route 116 (SR-116) and SR 12. The project site is not visible from these segments.

Thus, there are no trees, rock outcroppings, or historical buildings on the project site that would alter the viewshed from the perspective of viewers from the freeway. Therefore, the proposed project would not substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. Implementation of the proposed project would have a less than significant impact in this regard and mitigation is not required.

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?

Less than Significant Impact. The project site is located within an urbanized area and is surrounded by a mix of commercial, residential, and school uses in the project vicinity. Project implementation would make transportation intersection improvements at the Adobe Road and Main Street intersection to address travel time delay and queuing due to insufficient intersection capacity, Americans with Disabilities Act (ADA) pedestrian facility requirements, and pedestrian and bicycle circulation. Improvements would occur within the existing right-of-way and would not occur within adjacent parcels. The proposed project would be consistent with the type of existing development in the project area. For these reasons, the proposed project would have a less than significant impact on the visual character and quality of the site and surround area. Design and construction of

the proposed project would comply with all state and local regulations for roadway improvements. For these reasons, the project would not conflict with applicable zoning and regulations governing scenic quality. Thus, impacts would be less than significant.

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

Less than Significant Impact. There is a potential for the implementation of the proposed project to introduce new sources of light and glare into the project area during construction and operation. Contributions to light and glare impacts would be temporary and short-term during construction and only occur during this period of time. The project would include modifying an existing traffic signal by adding additional signal heads and adding new streetlights that could introduce a new light source in the area for the life of the project. The proposed project would conform Sonoma County standards for outdoor lighting that establish requirements for light illumination, the use of light shields, and lighting that is directed downward to minimize the effects of spillage, and potential for glare. Thus, the proposed project would have a less than significant impact in this regard and mitigation is not required.

Cumulative Impacts

The potential aesthetic impacts related to views, aesthetics, and light and glare are generally site-specific. As discussed above, project-related changes would be minimal and impacts to scenic vistas would be less than significant. The proposed project would not substantially change the on-site visual character because the new visual elements would not be dissimilar from the existing visual environment. The project also would not alter the balance of the surrounding areas and they would retain their existing character. New sources of lighting from the signalization and streetlights would be consistent with the existing use and would not make a substantial contribution to new light sources in the area. Similar to the proposed project, other projects would be required to use lights that are shielded and directed. Therefore, while the proposed project would make minor changes to the appearance of the site, this project, in conjunction with other past, present, and reasonably foreseeable projects in the vicinity, would follow applicable local planning and design guidelines regarding roadway design including materials, coloration, and landscaping. This would serve to minimize the effects to aesthetic resources and cumulative impacts would be less than significant.

4.2 Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
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))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
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?				**X**

3) *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)*

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?

No Impact. Based on the California Department of Conservation Important Farmland Monitoring and Mapping Program (FMMP), the project site is located on Urban and Build-Up Land. Urban and Built-Up Land is defined as land that is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, and institutional facilities. Therefore, the project would not covert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Overall, the proposed project would have no impact in this regard.

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

No Impact. The project site is located primarily within the existing roadway and hardscape. The project contains minor areas within the following zoning classifications: Limited Commercial (LC), Rural Residential (RR), Medium Density Residential (R2), and Public Facilities (PF). The project site does not conflict with existing zoning for agriculture or contain a Williamson Act Contract (County of Sonoma, 2019). Therefore, the proposed project would have no impact in this regard.

f) 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))?

g) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As identified above, the project site does not contain zoning for forest land, timberland, or timberland production. Therefore, the proposed project would have no impact in this regard.

Cumulative Impacts

The proposed project includes intersection improvements primarily within the existing roadway. Implementation of the proposed project would not induce any additional or new population growth not already identified in the General Plan or studied in the General Plan EIR. The project site does not contain zoning or land use designations for agriculture, farmland, or forestland. Thus, the proposed project would not result in new impacts related to agricultural resources, nor would the proposed project result in an increase in the severity of an impact related to agricultural resources previously disclosed in the General Plan EIR. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor a substantial increase in the severity of a cumulative impact previously disclosed.

4.3 Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district 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?			**X**	
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?			**X**	
c) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			**X**	

The Road Construction Emissions Model (RCEM) and air quality model outputs listed in Appendix A were utilized in this analysis.

Existing Setting

The proposed project is located in southern Sonoma County, which lies within two air basins. The Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area Air Basin (SFBAAB), has jurisdiction over the southern portion of the County while Northern Sonoma County Air Pollution Control District (NSCAPCD) regulates the Northern Sonoma Air Basin (NSAB). Air quality conditions in the San Francisco Bay Area have improved significantly since BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially.

Bay Area Air Quality Management District

The Air Monitoring Program of BAAQMD operates a 28-station monitoring network which provides the data required to determine whether the Bay Area is in compliance with State and federal air quality standards. Pollutant monitoring results for the years 2019 through 2021 at the Sebastopol 103 Morris Street ambient air quality monitoring station in Sonoma County are described below.

Ozone (O_3) levels, as measured by peak concentrations and the number of days over the State 8-hour standard, have remained consistent between 0.59 to 0.063 ppm and 0 days above the standard. The days

above the standard and peak concentrations have been declining since measurements were recorded as a result of the aggressive programs by BAAQMD and other regional, State, and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State standard for 1-hour and 8-hour ozone level. In addition, the Bay Area was designated as a nonattainment area for the federal 8-hour ozone level. From 2019 to 2021 the State's 8-hour standard at the Napa air monitoring station was not exceeded. In addition, there were no exceedances of the federal 8-hour standard during the 3-year period.

National and State standards have also been established for particulate matter 2.5 microns in diameter or less ($PM_{2.5}$), over 24-hour and yearly averaging periods. Fine particulate matter, because of the small size of the individual particles, can be especially harmful to human health. Fine particulate matter is emitted by common combustion sources such as cars, trucks, buses, and power plants, in addition to ground-disturbing activities. $PM_{2.5}$ levels exceeded the federal 24-hour standards 7 times in the 3-year period.

The Bay Area is a nonattainment area for the federal particulate matter 10 microns in diameter or less (PM_{10}) standard over a 24 hour period and a nonattainment area at the State level over a 24-hour period and annual arithmetic mean. There were seven exceedances of the national standard were recorded at the monitoring station from 2019 to 2020. Furthermore, no exceedances of the State or federal carbon monoxide (CO) standard have been recorded at the monitoring stations during the 3-year period. The region is required to adopt clean air plans on a triennial basis that show progress towards meeting the state ozone standard. The latest regional plan was adopted in April 2017. This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources through the expeditious implementation of all feasible measures, including transportation control measures (TMCs) and programs such as "Spare the Air"[1].

Applicable Plans, Policies, and Regulations

Ambient Air Quality Standards

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) establish ambient air quality standards for major pollutants at thresholds intended to protect public health. The standards for some pollutants are based on other values such as protection of crops or avoidance of nuisance conditions. **Table 4-1: State and Federal Ambient Air Quality Standards** summarizes the State California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS).

CARB designates all areas within the State as either attainment (having air quality better than the CAAQS) or nonattainment (having a pollution concentration that exceeds the CAAQS more than once in three years). The SFBAAB is currently designated as a nonattainment area for state and national standards for ozone and $PM_{2.5}$, and state standards for PM_{10}. NSCAPCD is currently designated as attainment for all pollutants.

[1] Spare the Air was created in 1991 by the Bay Area Air Quality Management District to alert residents when air quality is forecast to be unhealthy and to share information on ways to reduce air pollution.

Table 4-1: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]		National Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
Ozone (O_3)	8 Hour	0.070 ppm (137 µg/m³)	N[9]	0.070 ppm	N[4]
	1 Hour	0.09 ppm (180 µg/m³)	N	NA	N/A[5]
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	A	9 ppm (10 mg/m³)	A[6]
	1 Hour	20 ppm (23 mg/m³)	A	35 ppm (40 mg/m³)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m³)	A	0.100 ppm[11]	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	-	0.053 ppm (100 µg/m³)	A
Sulfur Dioxide[12] (SO_2)	24 Hour	0.04 ppm (105 µg/m³)	A	0.14 ppm (365 µg/m³)	A
	1 Hour	0.25 ppm (655 µg/m³)	A	0.075 ppm (196 µg/m³)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m³)	A
Particulate Matter (PM_{10})	24-Hour	50 µg/m³	N	150 µg/m³	-U
	Annual Arithmetic Mean	20 µg/m³	N[7]	NA	-
Fine Particulate Matter ($PM_{2.5}$) [15]	24-Hour	NA	-	35 µg/m³	U/A
	Annual Arithmetic Mean	12 µg/m³	N[7]	12 µg/m³	N
Sulfates (SO_{4-2})	24 Hour	25 µg/m³	A	NA	-
Lead (Pb)[13, 14]	30-Day Average	1.5 µg/m³	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m³	A
	Rolling 3-Month Average	NA	-	0.15 µg/m³	-
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 µg/m³)	U	NA	-
Vinyl Chloride (C_2H_3Cl)	24 Hour	0.01 ppm (26 µg/m³)	-	NA	-
Visibility Reducing Particles[8]	8 Hour (10:00 to 18:00 PST)	-	U	-	-

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; – = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matt–r - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
2. National standards shown are t“e "primary standa”ds" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m_3. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
3. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
4. National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.
5. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or

less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

6. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
7. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
8. In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.
9. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
10. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
11. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.
12. To attain this standard, the 3-year average of the [9]8th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.
13. On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.
14. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
15. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
16. In December 2012, EPA strengthened the annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter ($\mu g/m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, 2017 http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

National Ambient Air Quality Standards

As required by the Clean Air Act, the NAAQS have been established for the six primary criteria pollutants: carbon monoxide (CO), nitrogen oxides (NO_X), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), sulfur oxides, and lead. Pursuant to the California Clean Air Act, the state has also established the CAAQS, which are generally more stringent than the corresponding federal standards. BAAQMD is primarily responsible for assuring that the national and state ambient air quality standards are attained and maintained in the SFBAAB.

Southern Sonoma County, and the Bay Area as a whole, is classified as a nonattainment area for ozone, PM_{10}, and $PM_{2.5}$ under federal law. The County is either in attainment or unclassified for other pollutants.

- Ozone, often called photochemical smog, is classified as a secondary air pollutant, meaning it is not emitted directly into the air. It is created by the action of sunlight on ozone precursors, primarily reactive hydrocarbons, and NO_X. The major sources of ozone precursors include combustion sources such as factories and automobiles and evaporation of solvents and fuels. The main public health concerns associated with ground level ozone pollution are eye irritation and impairment of respiratory functions.
- PM_{10} consists of solid and liquid particles of dust, soot, aerosols, and other matter which are less than 10 microns in diameter. Major sources of PM_{10} are combustion (including automobile engines – particularly diesel, fires, and factories) and dust from paved and unpaved roads. Public

health concerns associated with PM_{10} include aggravation of chronic disease and heart/lung disease symptoms.

- $PM_{2.5}$, also known as Fine Particulate Matter, consists of the same type of matter as PM_{10}, but is less than 2.5 microns in diameter. The major source of $PM_{2.5}$ is combustion, but the particles can also be formed by chemical changes occurring in the air. $PM_{2.5}$ can cause respiratory problems and is of particular concern because the particles can penetrate deeper into the lungs.

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the EPA to establish NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide is an air pollutant covered by the CAA; however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 188 substances are listed as hazardous air pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) program. The EPA is establishing regulatory schemes for specific source categories and requires implementation of Maximum Achievable Control Technologies (MACTs) for major sources of HAPs in each source category. State law has established the framework for California's Toxic air contaminant (TAC) identification and control program, which is generally more stringent than the federal program and is aimed at HAPs that are a problem in California. The state has formally identified 244 substances as TACs and is adopting appropriate control measures for each. Once adopted at the state level, each air district will be required to adopt a measure that is equally or more stringent.

California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588)

The California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) is a state-wide program enacted in 1987. AB 2588 requires facilities that exceed recommended Office of Environmental Health Hazard Assessment (OEHHA) levels to reduce risks to acceptable levels.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by

EPA as hazardous air pollutants and by CARB as toxic air contaminants. On August 27, 1998, CARB identified particulate matter in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.

In September 2000, CARB adopted a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. As part of this plan, CARB identified Airborne Toxic Control Measures (ATCM) for mobile and stationary emissions sources. Each ATCM is codified in the California Code of Regulations, including the ATCM to limit diesel-fueled commercial motor vehicle idling, which puts limits on idling time for large diesel engines (13 CCR Chapter 10 Section 2485).

California Clean Air Act

The California Clean Air Act (CCAA) allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the California ambient air quality standards. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

In addition to standards set for the six criteria pollutants, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, in addition to primary and secondary ambient air quality standards, the State has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health.

California State Implementation Plan

The federal Clean Air Act (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the national ambient air quality standards revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the Clean Air Act. The EPA has the responsibility to review all State Implementation Plans to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards

SIP revisions to the EPA for approval and publication in the Federal Register. As discussed below, the BAAQMD Final 2017 Clean Air Plan (Clean Air Plan) is the SIP for the SFBAAB.

Senate Bill 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program

Senate Bill (SB) 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, the California Accidental Release Prevention Law (CalARP) replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as regulated substances, which if involved in an accidental release, could result in adverse offsite consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

Sonoma County Municipal Code

Chapter 19 Article IV Section 57

The board of supervisors of the County of Sonoma, State of California, does find that the county encourages people to walk and ride bicycles rather than drive motor vehicles in order to lessen traffic congestion, improve air quality and improve public health.

Chapter 18 Article VII Section 50

In an effort to reduce traffic congestion and protect our environment with particular attention to clean air and conservation of energy, the county proposes to encourage a reduction of single-occupant commuter trips by their employees within the unincorporated areas.

Penngrove General Plan

The Penngrove General Plan outlines vehicle emissions as the greatest source of air pollution and sets for the following rules:

> (1) Both point source and cumulative traffic-generated emissions should be evaluated for potential adverse air quality impacts for major developments and these developments should proceed only if air quality impacts can be mitigated.
>
> (2) Substantial air emissions sources will be regulated by a permit issued by the Air Pollution Control District in accordance with State Air Resources Board standards.
>
> (3) Individual projects involving hazardous materials shall be sent to the Project Review & Advisory Committee to consider requiring an expanded initial study to evaluate the risk of an explosion or the release of hazardous substances in the event of an accident and propose feasible mitigations.

Sensitive Receptors

BAAQMD defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and the chronically ill are likely to be located. These facilities may include residences, school playgrounds, child-care centers, retirement homes, convalescent homes, and people with illnesses.

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

Less Than Significant Impact. Air quality plans describe air pollution control strategies and measures to be implemented by a city, county, region, and/or air district. The primary purpose of an air quality plan is to bring an area that does not attain federal and State air quality standards into compliance with the requirements of the federal Clean Air Act and California Clean Air Act. In addition, air quality plans are developed to ensure that an area maintains a healthful level of air quality based on the NAAQS and the CAAQS. The Air Quality Management Plan (AQMP) applicable to the project is prepared by BAAQMD. The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards. NSCAPCD does not have an AQMP as the region is in attainment for all pollutants.

The most recently adopted plan in the SFBAAB, the Clean Air Plan, outlines how the San Francisco Bay Area will attain air quality standards, reduce population exposure, and protect public health, and reduce GHG emissions. The Clean Air Plan assumptions for projected air emissions and pollutants throughout the Basin are based on General Plan Land Use Designations. The Project is a road expansion project and would be consistent with the development assumptions for the land use. Additionally, the project would not increase the regional population growth or cause changes in vehicle traffic that would obstruct implementation of the Clean Air Plan in SFBAAB. Additionally, the proposed project would not significantly affect regional vehicle miles travelled pursuant to the CEQA Guidelines (Section 15206). Therefore, population growth from the project would be consistent with ABAG's projections for the County and with the County's General Plan.

As described below, construction and operational air quality emissions generated by the proposed project would not exceed BAAQMD's emissions thresholds. Since the proposed project will not exceed these thresholds, the proposed project would not be considered by BAAQMD to be a substantial emitter of criteria air pollutants and would not contribute to any non-attainment areas in the SFBAAB. In addition, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures. Therefore, the project is consistent with the applicable air quality plan and impacts would be less than significant.

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?

Less Than Significant Impact.

Construction Emissions

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 CO, nitrogen oxides (NO_X), reactive organic gases (ROG), Sulphur dioxide (SO_2), directly-emitted particulate matter (PM_{10} and $PM_{2.5}$), and toxic air contaminants (e.g., diesel exhaust PM).

The regional construction emissions associated with development of the proposed project were calculated using Roadway Construction Emissions Model (RCEM version 9.0). For the purposes of

the air quality analysis, site disturbance would be approximately 0.5 acres per day and the construction timeframe would be approximately nine months. Construction would include demolition, grading, repairs and maintenance, and paving. Typical construction equipment includes excavators, graders, scrapers, rollers, tractors, loaders, and air compressors. **Table 4-2: Construction Related Emissions** shows construction emission for the project.

Table 4-2: Construction Related Emissions

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2025	**4.04**	**38.43**	**1.60**	**1.42**	**5.00**	**1.04**
BAAQMD Significance Threshold [2, 3]	*54*	*54*	*82*	*54*	*BMPs*	*BMPs*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using RCEM.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017.
3. BMPs = Best Management Practices. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.

Source: Refer to the RCEM outputs provided in, *Air Quality Modeling Data*.

As shown in **Table 4-2**, construction of the proposed project would not cause exceedances for ROG, NO_x, $PM_{2.5}$, and PM_{10}. During demolition, land clearing would generate approximately 13 cubic yards of soil export per day. To be conservative, this analysis assumed 20 cubic yards of soil export per day for 20 days. The calculated emission results for ROG, NO_x, $PM_{2.5}$, and PM_{10} from RCEM demonstrate that the construction of the project would remain below BAAQMD's maximum daily thresholds. As such, the proposed project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Construction impacts would be less than significant.

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 improve existing roadways by reducing travel time delays and enhancing intersection safety. The project would maintain existing roads to serve existing pedestrians and bicyclists and would not generate growth. 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.

Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the project's construction-related emissions by themselves would not have the potential to exceed BAAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. BAAQMD recommends Basic Construction Control Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related mitigation requirements are considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. Therefore, a project that exceeds BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact. As discussed above, the project would not generate operational emissions and therefore would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Therefore, the impact would be less than significant.

c) 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. Some of the project's roadway segments would be located adjacent to the nearest residential property line. The project site is adjacent to a school property line. The nearest residential structures are approximately 50 feet from the proposed roadway and the nearest school is 25 feet. The proposed project improvements would not result in stationary emissions. The project would not include 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 BAAQMD Basic Construction Mitigation Measures.

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 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 4-2: Construction Related Emission**s, PM_{10} emissions associated with construction activities would be well below the 82 lbs./day threshold established by BAAQMD. Furthermore, the project would not generate operational emissions; therefore, no operational TAC impacts would occur. Compliance with BAAQMD 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.

Carbon Monoxide 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 for roadway improvements. Pedestrians and bicyclists and nearby residents would not be exposed to substantial pollutant concentrations and the impact would be less than significant.

d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

No Impact. Construction activities associated with the project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon project completion. As a result, impacts to existing surrounding land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The proposed project would not be a source of objectionable odors; therefore, no impact would occur.

Cumulative Impacts

Please see discussion under Threshold b, above.

4.4 Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Game or U.S. Fish and Wildlife Service?		**X**		
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 Game or US Fish and Wildlife Service?		**X**		
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		**X**		
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?		**X**		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		**X**		
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?			**X**	

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 Game or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. Special-status species includes plant and/or wildlife species that are legally protected under the Federal Endangered Species Act, the California Endangered Species Act, or other regulations, or are considered rare enough by the scientific community and trustee agencies to warrant special consideration.

Special Status-Plants

Plant communities present on the project site are routinely disturbed and suitable habitat for special-status plant species is not present. A *Biological Resources Report*, prepared by Sequoia Ecological Consulting on October 2022 stated a total of 66 special-status plants have been previously documented in the vicinity of the project site (CNPS 2022; CNDDB 2022; USFWS 2022a); however, no special-status plants have been observed or mapped on the project site.

The *Biological Resources Report* analyzed the potential for these plant species to occur, as well as species included in CNPS, CNDDB, and IPaC resource lists during the desktop review. The majority of these species require specialized habitats such as vernal pools, marshes and swamps, chaparral, forest, and/or serpentinite soils, among others, which are not found on the project site. Project activities extending beyond current infrastructure include the construction of a retaining wall and widening of Adobe Road within an area containing riparian canopy. Due to the lack of suitable habitat and/or historic occurrences within the project site footprint, no impacts to special-status plants are anticipated as a result of the proposed project. In addition, reconnaissance level plant surveys were conducted in May 2022 and no special-status plant species were observed. Accordingly, no impacts to special-status plant species are anticipated from the proposed project.

Special Status Wildlife

A total of 14 special-status animal species have been previously documented in the vicinity of the project site (CNDDB 2022; USFWS 2022a; NMFS 2022); however, no special-status animals have been observed or mapped on the project site. The Biological Resources Report analyzed the potential to occur for these animal species, as well as species included in NMFS and IPaC resource lists during the desktop review (see *Biological Resources Report*, Table 2; Figure 7). A number of these species require specialized habitats such as vernal pools, marshes, ponds, lakes, rivers, ocean, forest, and caves, among others, which are not found on the project site. Due to lack of suitable habitat and/or lack of recent occurrences in the project vicinity, 11 of these special-status animal species are not anticipated to occur and are therefore not discussed further in this analysis. Descriptions and discussion of potential for occurrence for the remaining three (3) special-status animal species—California red-legged frog, foothill yellow-legged frog, and western pond turtle—are provided in more detail below.

California Red-Legged Frog

The closest known occurrence of California red-legged frog is located approximately 2.25 miles west of the project site. This 2009 occurrence is known from a constructed pond located on Stony Point Road adjacent to rangeland and horse corrals. Due to the absence of suitable California red-legged

frog breeding or over-summering habitat on and/or adjacent to the project site and the extent of regular disturbance associated with the roadways and shoulders that make up the proposed project, it is very unlikely this species would occur on the project site. However, the unnamed intermittent drainage feature could potentially be used as migration/dispersal habitat. Potential impacts to the California red-legged frog would be reduced to less than significant with Mitigation Measure (MM) BIO 4.4-1 and MM BIO 4.4-2 incorporated. MM BIO 4.4-1 would provide environmental awareness training to personal on special status species, which includes the California red-legged frog. MM BIO 4.4-2 would require preconstruction surveys to be conducted that confirm or negate this species' presence on the project site. It should be noted that migration and dispersal of these species are temporally constrained activities that generally occur during the wet season; however, the proposed project construction would occur during dry conditions. If California red-legged frogs are identified on or immediately adjacent to the project site, MM BIO 4.4-2 would reduce potential impacts to less than significant.

Foothill Yellow-Legged Frog – Northwest/North Coast Clade

The closest known occurrence of foothill yellow-legged frog is located approximately 0.34 miles south of the project site in Lichau Creek and dates to 2018. Due to the absence of suitable foothill yellow-legged frog breeding on and/or adjacent to the project site and the extent of regular disturbance associated with the roadways and shoulders that make up the proposed project, it is very unlikely this species would occur on the project site. However, the unnamed intermittent drainage feature could potentially be used as migration/dispersal habitat. Potential impacts to the foothill yellow-legged frog would also be reduced to less than significant with MM BIO 4.4-1 and MM BIO 4.4-2 incorporated. MM BIO 4.4-1 would provide environmental awareness training to personal on special status species, which includes the foothill yellow-legged frog. MM BIO 4.4-2 would require preconstruction surveys to be conducted that confirm or negate this species' presence on the project site. It should be noted that migration and dispersal of these species are temporally constrained activities that generally occur during the wet season; however, the proposed project construction would occur during dry conditions. If foothill yellow-legged frogs are identified on or immediately adjacent to the project site, MM BIO 4.4-2 would reduce impacts to less than significant.

Western Pond Turtle

The closest known occurrence of western pond turtle is located approximately 0.20 miles south of the project site in Lichau Creek and dates to 2006. Due to the absence of suitable western pond turtle breeding and basking habitat on the project site and the extent of regular disturbance associated with the roadways and shoulders that make up the proposed project, it is very unlikely this species would occur on the project site. However, the unnamed intermittent drainage feature could potentially be used as migration/dispersal habitat for this species. Potential impacts to the western pond turtle would also be reduced to less than significant with MM BIO 4.4-1 and MM BIO 4.4-2 incorporated. MM BIO 4.4-1 would provide environmental awareness training to personal on special status species, which includes the western pond turtle. MM BIO 4.4-2 would require preconstruction surveys to be conducted that confirm or negate this species' presence on the project site. If western pond turtles are identified on or immediately adjacent to the project site, MM BIO 4.4-2 would reduce impacts to less than significant.

Nesting Birds

Common song birds (passerine birds) and raptors (birds of prey) could nest on the project site. These birds are protected under the MBTA (50 CFR 10.13), and their eggs and young are protected under CFGC Sections §3503, §3503.5. Any project-related impacts to these species would be considered a significant adverse impact. Potential impacts to these species from the proposed project could include disturbance to nesting birds and raptors and potential death of adults and/or young. MM BIO 4.4-3 would be implemented to reduce the potential impacts to less than significant. MM BIO 4.4-3 would require tree and vegetation clearing to be scheduled outside on the migratory bird nesting season. It would also require preconstruction surveys if clearing and/or construction activities occur during the migratory bird nesting season. If migratory birds or active nests are found buffers would be established to ensure no adverse impacts would occur to the migratory birds from the proposed project. With the implementation of MM BIO 4.4-3, impacts to nesting birds and raptors from development of the proposed project would be considered less than significant.

Mitigation Measures:

MM BIO 4.4-1: **Environmental Training.** Prior to the commencement of project-related activities, a qualified biologist shall provide an environmental awareness training program to educate project personnel on relevant special-status species and their habitats, sensitive/regulated habitats, and applicable environmental laws and permits. The training shall include a description of the species and their habitats, importance of preserving species and habitats, penalties for unauthorized take, and the project limits.

MM BIO 4.4-2: **Special-Status Amphibians and Reptiles.** A qualified biologist shall conduct preconstruction surveys for special-status amphibians and reptiles (California red-legged frog, foothill yellow-legged frog, and western pond turtle) within two days of project commencement.

In the event that California red-legged frog, foothill yellow-legged frog, or western pond turtle are found on the project site, the individual(s) shall be allowed to leave the area of their own volition. Prior to resumption of project-related activities, suitable wildlife exclusion fencing shall be installed along the outside edge of project work limits along the boundary with the unnamed intermittent drainage feature to ensure that individuals are precluded from entering active work areas. The fencing shall be monitored for routine maintenance and should be permanent enough to ensure that it remains in good condition throughout the duration of the construction period at the project site. In lieu of exclusion fencing, a qualified biologist shall conduct monitoring for the duration of project-related activities at the location and in the vicinity of the previous detection.

- To prevent inadvertent entrapment of amphibian and reptile species, all steep-walled excavations or trenches shall be covered or provided with a wildlife escape ramp at the end of each working day. Before these holes or trenches are filled, they shall be thoroughly inspected for entrapped wildlife by a qualified biologist.

- To prevent inadvertent entrapment of amphibian and reptile species, no plastic monofilament netting shall be allowed on the project site.
- All trash items shall be removed from the project site to reduce the potential for attracting predators of the California red-legged frog, foothill yellow-legged frog, and western pond turtle.

MM BIO 4.4-3: **Nesting Birds and Raptors.** Tree and vegetation clearing (removal, pruning, trimming, and mowing) shall be scheduled to occur outside the migratory bird nesting season (February 1 through August 31). However, if clearing and/or construction activities will occur during the migratory bird nesting season, then preconstruction surveys to identify active migratory bird and/or raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation on the project site and within 300 feet (i.e., zone of influence) of project-related activities. The zone of influence includes areas outside the project site where birds could be disturbed by construction-related noise or earth-moving vibrations.

If active nest, roost, or burrow sites are identified within the project site, a no disturbance buffer shall be established for all active nest sites prior to commencement of any proposed project-related activities to avoid construction or access-related disturbances to migratory bird nesting activities. A no-disturbance buffer constitutes a zone in which proposed project-related activities (e.g., vegetation removal, earth moving, and construction) cannot occur. A minimum buffer size of 50 feet for passerines and 300 feet for raptors shall be implemented; sizes of the buffers shall be determined by a qualified biologist based on the species, activities proposed near the nest, and topographic and other visual barriers. Buffers shall remain in place until the young have departed the area or fledged and/or the nest is inactive, as determined by the qualified biologist. If work is required within a buffer zone of an active bird nest, work may occur under the supervision of a qualified avian biologist. The qualified avian biologist monitoring the construction work shall have the authority to stop work and adjust buffers if any disturbance to nesting activity is observed.

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 Game or US Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. The bed, bank, and channel and associated riparian vegetation of the unnamed intermittent drainage running northeast to southwest through the project site and beneath the intersection of Adobe Road and Petaluma Hill Road/Main Street is subject to CDFW jurisdiction pursuant to Section §1600 of the CFGC. In addition, areas within the riparian corridor and below top-of-bank is subject to RWQCB jurisdiction pursuant to the CWA and Porter-Cologne Act. Accordingly, prior to any impacts to the bed, bank, and/or channel and associated riparian vegetation/canopy of the intermittent drainage, authorization from CDFW/RWQCB shall be required prior to project commencement. With MM BIO 4.4-4, which would require a CDFW Section §1600 Lake or Streambed Alteration Agreement, the potential impacts would be reduced to less than significant in this regard.

Mitigation Measure

MM BIO 4.4-4: Obtain CDFW Section §1600 Lake or Streambed Alteration Agreement. If project activities impact the riparian zone subject to CDFW jurisdiction, the project proponent shall obtain a Section §1600 Lake or Streambed Alteration Standard Agreement from CDFW prior to project construction commencement. The Notification shall include a description of impacts, including quantification of impacts to bed, bank, and channel, as well as individual trees, area and linear footage of riparian vegetation, and proposed mitigation for impacts. The project shall be subject to and comply with all requirements of the permit, including but not limited to removed tree replacements and success monitoring.

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?

Less Than Significant with Mitigation Incorporated. Aquatic resources were delineated on the project site during the May 26, 2022 visit conducted by Sequoia Ecological Consulting, Inc and resulted were reported in an *Aquatic Resources Delineation Report*. One jurisdictional aquatic resource, an intermittent drainage, was found on-site. Intermittent drainages are indicated by intermittent flow during a typical year. The intermittent drainage is located in the northeastern corner of the intersection and flows through a box culvert under the intersection to a box culvert on the southwestern corner of the intersection. The road widening off Adobe Road would require grading and therefore has the potential to infringe upon the intermittent drainage and impact, due to dredge or fill, the jurisdictional water. As part of the project a retention wall would be constructed to minimize grading impacts to the drainage. In addition, MM BIO 4.4-5, would require RWQCB CWA Section 401 permit and/or Porter-Cologne Authorization or USACE CQA Section 404 permit. Therefore, with the implementation of MM BIO 4.4-5, potential impacts would be reduced to less than significant.

Mitigation Measure

MM BIO 4.4-5: **Obtain RWQCB CWA Section 401 and/or Porter-Cologne Authorization, Obtain USACE CWA Section 404.** If project-related activities encroach on areas, including the riparian zone and canopy of the unnamed intermittent drainage, and below ordinary high-water mark of the drainage and/or roadside ditch features, or other areas potentially regulated by the RWQCB/USACE, the project proponent shall obtain the appropriate CWA Section 401 Water Quality Certification and/or Porter-Cologne Waste Discharge Requirement approval from the RWQCB and/or CWA Section 404 permit from USACE prior to the discharge of any dredged or fill material within jurisdictional waters of the United States/state.

In addition, the project proponent shall develop a SWPPP that will be submitted to Sonoma County as a condition of project approval demonstrating BMPs that shall be installed/implemented prior to project commencement. Stormwater protection and treatment measures shall be implemented to ensure that the proposed project remains in compliance with the Porter-Cologne Act and that discharges of dredged or fill material do not enter waters of the state.

Mitigation compensation wetlands shall be enhanced/created for replacement of wetlands permanently impacted by the proposed project. If feasible, wetlands

shall be enhanced/created on site and shall resemble wetlands impacted by the proposed project (i.e., in-kind replacement with no net loss of habitat values and functions). If wetlands cannot be created in-kind and on site, in lieu of creating compensation wetlands, the Applicant may purchase mitigation credits from a RWQCB/USACE-approved mitigation bank—at a minimum 1:1 ratio or a higher ratio as otherwise required by the RWQCB/USACE upon issuance of permits. If wetlands can be created in-kind and on site, the project proponent would need to establish a monitoring program to monitor the wetland(s) progress toward established goals (i.e., hydrological/vegetative conditions) and provide annual monitoring reports to RWQCB, USACE, and other resource agencies that permitted the Project. To meet success criteria, mitigation wetlands would need to at a minimum:

- Exhibit comparable plant/wildlife habitat characteristics to existing wetlands.
- Remain inundated or saturated for a sufficient duration of time to support hydrophytic (i.e., wetland) vegetation.

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

Less Than Significant with Mitigation Incorporated. Wildlife corridors are habitats that provide connectivity between natural communities otherwise separated by urbanization and other development. Wildlife corridors provide access for animals to travel between these communities for seasonal migration, access to overwintering/summering habitat, breeding, etc. They also allow animals a route to move away from natural disasters and other forms of habitat loss, as well as to recolonize habitats previously extirpated. Wildlife corridors provide opportunities to breed, forage, migrate/emigrate, disperse, and forage.

The proposed project may temporarily interfere with the movement of native wildlife. The unnamed intermittent drainage that flows northeast to southwest and beneath the intersection of Adobe Road and Petaluma Hill Road/Main Street functions as a wildlife corridor. Active construction within the bed, bank, or channel of this feature may temporarily interfere with the movement of native wildlife within this corridor; however, no permanent barriers to movement along this drainage will occur as a result of the proposed project.

The trees on the project site may provide roosting and/or maternity habitat for bats. Potential impacts to bats from the proposed project include disturbance to and/or loss of maternity or roosting habitat, death of individual adult bats and/or young. In the absence of survey results, it must be concluded that impacts to bats from development of the proposed project would be considered significant pursuant to CEQA. Implementation of MM BIO 4.4-6 would reduce potential impact to bats and impacts in this regard would therefore be less than significant. Additionally, the trees on-site could be used by raptors and other migratory birds during their nesting seasons. If these trees are removed during nesting seasons for these birds, this could have a direct, adverse impact. However, as mentioned above with the implementation of MM BIO 4.4-3, impacts would be less than significant.

Mitigation Measure

MM BIO 4.4-6: **Bats.** A qualified biologist shall be hired to conduct surveys for roosting bats no more than two weeks prior to planned commencement of construction activities that have the potential to disturb bat day roosts or maternity roosts through elevated noise levels or removal of trees. If a visual survey is not sufficient to determine the presence/absence of bats, acoustic equipment (e.g., AnaBat) shall be used to determine potential occupancy type of species present.

If an active maternity roost is detected, a qualified biologist shall determine an appropriate avoidance buffer to be maintained from April 1 until young are flying (typically through August). If an active day roost is detected in a tree or structure planned for removal, or within a zone of influence (i.e., noise, vibration) that could result in roost abandonment, as determined by a qualified biologist, the bats shall be safely evicted under the guidance of a qualified biologist. Day roosts shall not be removed unless the daytime temperature is at least 50 degrees Fahrenheit and there is no precipitation. Mitigation for day roosts impacted by the Project will be achieved through the installation of bat houses on site to replace lost roosts at a 1:1 ratio. Replacement roosts will be placed at the discretion of the qualified biologist.

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

Less than Significant with Mitigation Incorporated. On May 26, 2022, an *Arborist Report* was prepared by Sequoia Ecological Consulting Inc., in which a tree inventory and assessment was performed on the project site. A total of 30 trees and five unique species of trees were identified and assessed within the survey area (Figure 2; *Arborist Report*). Tree species on the project site consists of native and non-native trees of various diameters ranging from 1.5 to 53 inches. Of the 30 trees in the survey area, one was found to be dead as a result of unknown causes and several trees were located on private property and measurements/assessments were estimated from the right-of-way using high-powered binoculars. If heritage or landmark trees would be removed or damaged as a result of the proposed project, Chapter 26D (Heritage or Landmark Tree Ordinance) would require a permit from Sonoma County. Removal of any protected trees without a tree permit from Sonoma County would be considered significant pursuant to CEQA. Implementation of MM BIO 4.4-7 would ensure the project would comply with the County's Heritage or Landmark Tree Ordinance. Therefore, potential impact would be reduced to less than significant.

Mitigation Measure

MM BIO 4.4-7: **Protected Trees.** Any proposed tree removal and work within tree drip lines would be evaluated by the County's staff pursuant to the Heritage or Landmark Tree Ordinance. Any tree permit approved for the proposed project would include conditions of approval for the restitution of any tree approved to be removed, protection of remaining trees where work may occur within the driplines of the trees, and any other protection measures prescribed by the Project's arborist. In accordance with the Heritage and Landmark Tree Ordinance, any Heritage or Landmark trees found to be on site shall be appropriately fenced

beyond the dripline if they are to remain, or clearly marked if they are to be removed.

Mitigation for the removal of any protected trees could include either the planting of native trees on the project site or planting trees at a location approved of by the County in agreement with the project Applicant. Mitigation ratios will be calculated by the DBH of removed trees, in accordance with the Sonoma County Tree Protection Ordinance. Alternatively, the Applicant may be allowed to pay an in-lieu fee to the County. This would be determined by the County at the time the Applicant applies for a permit

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?

Less than Significant Impact. The project site is not located in an area subject to a habitat conservation plan or natural community conservation plan. Therefore, impacts in this regard would be less than significant.

Cumulative Impacts

Overall, the project is previously disturbed and located next to an urban environment. The project would require only minor acquisitions and primarily located within the ROW and/or existing roadway/intersection. Additionally, the mitigation measures referenced would reduce potential biological resource impacts to less than significant. The project would comply with applicable policies, fees, and mitigation measures, and only include a minor increase of hardscape that would be compatible with the existing environment. Therefore, the development of project site would cause a cumulatively considerable impact to biological resources.

4.5 Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			**X**	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			**X**	

Existing Setting

A *Cultural Resources Assessment* was prepared for the project in May 2023 by LSA, listed in Appendix A was utilized is this analysis.

Methodology

The *Cultural Resources Assessment* included a cultural resources records search conducted on November 15, 2022 by the Northwest Information Center (NWIC) at Sonoma Statue University. This included a review of all recorded historic and prehistoric archaeological sites within 0.5 miles of the area of potential effects (APE), additional review of historic period aerial photographs and maps, a Scared Lands File (SLF) search, and a pedestrian field survey of accessible areas of the APE.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

Less than Significant with Mitigation Incorporated. Data from the NWIC indicate there have been 39 cultural resource studies previously conducted within 0.5 mile of the proposed project, 6 of which include portions of the APE (S-100, -11395, -13217, -14987, -15331, -22736; see *Cultural Resources Assessment*). Although no cultural resources are formally documented within the APE, a portion of one (SON-HRI-179, a historic built environment district) was informally recorded within the APE for which a finding of No Adverse Impact was made regarding the project, (Wendt 2023; see *Cultural Resources Assessment*). Historic-period resources within 0.5 mile of the project site include archaeological sites (49-004992 and 49-00503, both refuse deposits) a building complex (49-001613/ Ronsheimer, Antone and Mary Ranch) and a railroad alignment (49-002834/CA-SON-002322H; Northwestern Pacific Railroad). Prehistoric resources include habitation sites (49-001079

and 49-002301) and two isolated artifacts (49-001733 and 49-001734), the closest (49-002301) is 0.37 mile/600 meters to the northwest. Despite severe disturbance by road construction, development and a drainage, the APE has some potential for both surface and subsurface resources. Therefore, implementation of Mitigation Measure MM CUL-1 through MM 4.5-3 would be implemented to reduce potential impacts to less than significant. MM 4.5-1 would require construction worker awareness training, MM 4.5-2 would require archaeological and Native American monitoring during initial grading, and MM 4.5-3 would require a subsurface cultural resources treatment plan if cultural resources are discovered during construction. With implementation of MM 4.5-1 through MM 4.5-3 impacts would be less than significant.

Mitigation Measures:

MM CUL 4.5-1: Construction Worker Awareness Training: Prior to the start of ground disturbance, all construction personnel involved with earth-moving activities should be informed that artifacts protected by law could be discovered during excavating. The training should include the appearance of common artifacts and proper notification procedures should artifacts be discovered. This worker training should be prepared and presented by a qualified archaeological professional.

MM CUL 4.5-2: Subsurface Cultural Resources: The Improvement Plans shall include the following statement: Prior to any ground disturbance the contractor shall demonstrate that a qualified archaeological monitor and a Native American monitor have been retained to perform onsite construction monitoring during the initial grading, which includes the first ground disturbance of soil within the project area, and excavation phase of the project. If any archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone are uncovered during any on-site construction activities, all work shall be stopped immediately within a 50-foot radius of the find and the qualified archaeologist and Native American Monitor shall evaluate the deposit. The archaeologist and Native American monitor shall 1) evaluate the find(s) to determine if they meet the definition of a historical, archaeological, or cultural resource; and (2) make appropriate recommendations regarding the disposition of such finds prior to any ground disturbance. The qualified archaeologist and Native American monitor shall have authority to halt construction activities temporarily in the immediate vicinity of an unanticipated find. If, for any reasons, the qualified archaeologist or Native American monitor is not present, but construction crews encounter a cultural resource, all work shall stop temporarily within 50 feet of the find until a qualified archaeologist and Native American monitor has been contacted to determine the proper course of action. If the finds do not meet the definition of a historical, archaeological, and cultural resources, no further study or protection is necessary prior to project implementation. If the find(s) does meet the definition of a historical, archaeological, or cultural resource, the find and the area around the find shall be avoided by project activities and a Cultural Resources Treatment Plan as described in MM 4.5-3 shall be implemented.

MM CUL 4.5-3: **Subsurface Cultural Resources Treatment Plan:** If grading activities reveal the presence of cultural resources, the qualified archeologist shall prepare an archaeological resources treatment plan prior to resuming work within 100 feet of the area where the cultural resources are discovered. The treatment plan shall utilize data recovery methods to reduce impacts on subsurface resources. The treatment plan shall contain, at a minimum:

- Identification of the scope of work and range of subsurface effects (including location map and development plan), including requirements for preliminary field investigations.
- Description of the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found).
- Development of research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information).
- Detailed field strategy, including reasonable and good faith efforts to consult with Native American representatives regarding the most appropriate method to record, recover, or avoid the finds and address research goals.
- Analytical methods.
- Report structure and outline of document contents.
- Disposition of the artifacts.
- Appendices: all site records, correspondence, and consultation with Native Americans, etc.

The treatment plan shall be prepared and submitted to the Supervising Environmental Planner for review and approval prior to resuming work.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact. On April 7, 2023, a LSA Archaeological Technician completed an intensive pedestrian survey of the unpaved/accessible areas of the APE using systematic, parallel transects spaced by approximately 2 meters (approximately 6.5 feet) where possible. Parcel 047-181-001 and the northern portion of parcel 047-191-047 (totaling 37 percent of the APE) were not accessible (Figure 2 in *Cultural Resources Assessment*). Special attention was paid to areas of exposed soil for surface artifacts and features and rodent aprons for evidence of archaeosols. The pedestrian survey noted obstruction by impenetrable vegetation and poor surface visibility at approximately 20%. The survey ultimately concluded modern refuse within the APE but no cultural resources were identified.

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

Less than Significant Impact. No human remains are known to be present within the project site. If human remains are found, those remains would require proper treatment in accordance with

applicable laws, including Health and Safety Code (HSC) §§ 7050.5-7055 and PRC § 5097.98 and § 5097.99. HSC §§ 7050.5-7055 describe the general provisions for treatment of human remains. Specifically, HSC § 7050.5 prescribes the requirements for the treatment of any human remains that are accidentally discovered during excavation of a site. HSC § 7050.5 also requires that all activities cease immediately, and a qualified archaeologist and Native American monitor be contacted immediately. As required by state law, the procedures set forth in PRC § 5097.98 would be implemented, including evaluation by the County Coroner and notification of the NAHC. The NAHC would then designate the "Most Likely Descendent" of the unearthed human remains. If human remains are found during excavation, excavation would be halted in the vicinity of the discovery and any area that is reasonably suspected to overlay adjacent remains shall remain undisturbed until the County Coroner has investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Compliance with the established regulatory framework (i.e., HSC § 7050.5-7055 and PRC §§ 5097.98 and 5097.99) would ensure potential project impacts concerning human remains are reduced to less than significant.

Cumulative Impacts

Overall, the project would not cause a considerable impact to historical cultural resources, archaeological cultural resources, or human remains. Due to the project location and previously disturbed project site ground, and the addition of the above listed mitigation measures the proposed project would not cause a cumulatively considerable impact to occur.

4.6 Energy

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			**X**	
e) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				**X**

Existing Setting

Pacific Gas and Electric Company (PG&E) is Sonoma County's energy utility provider, furnishing both natural gas and electricity for residential, commercial, industrial, and municipal uses. PG&E generates or buys electricity from hydroelectric, nuclear, and renewable facilities. In 2021, PG&E's electricity base-plan for retail customers was provided by nuclear plants (39 percent), hydroelectric operations (4 percent), renewable energy facilities including solar, geothermal, and biomass (48 percent).[2] Sonoma Clean Power is a community-owned electricity provider for Sonoma County that distributes low-carbon electricity via PG&E utility lines.

Applicable Plans, Policies, and Regulations

Renewable Energy Standards

In 2002, California established its Renewable Portfolio Standard program[3] with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (*Public Utilities Code* Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In

[2] PG&E 2021 Power Mix. Available at: https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2022/1022-Power-Content-Label.pdf. (Accessed August 7, 2023).

[3] The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 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.

California 2007 Energy Action Plan Update

The 2007 Energy Action Plan II is the State's principal energy planning and policy document. The plan describes a coordinated implementation strategy to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the state and its electricity providers would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply to meet its energy needs.

California Utility Efficiency Programs (Senate Bill 1037 and Assembly Bill 2021)

Senate Bill 1037 (SB 1037) and Assemble Bill 2021 (AB 2021) require electric utilities to meet their resource needs first with energy efficiency. California Utility Efficiency Programs have also set new targets for statewide annual energy demand reductions.

Sonoma County Permit Sonoma General Plan: Housing Element[4]

1.11 Goal 6: Improve Conservation of Energy and Natural Resources

Policy HE-6d: Support project applicants in incorporating cost-effective energy efficiency that exceeds State standards.

Policy HE-6e: Promote the use of straw bale, rammed-earth, and other energy-efficient types of construction methods. Encourage use of the County's Alternative Building Materials review process by publishing educational and promotional materials.

Sonoma County Permit Sonoma General Plan: Open Space and Resource Conservation Element[5]

Policy OSRC-14a: Continue to support education programs that promote energy conservation; energy efficiency; and solid waste reduction, reuse, and recycling opportunities for County operations, residents and businesses, and local utilities.

[4] Sonoma County Permit Sonoma General Plan Housing Element. Adopted December 2, 2014. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Archive/Department%20Information/Cannabis%20Program/_Documents/Genearl-Plan-Housing-Element.pdf (Accessed July 14, 2023).

[5] Sonoma County Permit Sonoma General Plan Open Space and Resource Conservation Element. 2020. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Archive/_Documents/General-Plan-Open-Space-and-Resource-Conservation-Element.pdf (Accessed July 14, 2023).

Policy OSRC-14c: Continue to purchase and utilize hybrid, electric, or other alternative fuel vehicles for the County vehicle fleet; and encourage County residents and businesses to do the same.

Policy OSRC-15b: Encourage and promote the development of renewable energy and distributed energy generation systems and facilities for County operations.

Policy OSRC-15c: Encourage and promote the use of renewable energy and distributed energy generation systems and facilities that are integral to and contained within existing and new development (e.g., solar thermal installations to provide space and water heating or solar electric installations for small commercial buildings or residences in rural areas, small wind energy systems to provide electricity to agricultural accessory structures, etc.).

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Construction

As discussed above, PG&E provides electricity and natural gas service to the project area. The proposed project would include roadway improvements. The project would result in a nominal increase in electricity and natural gas demand. This nominal increase represents an insignificant percent increase compared to overall demand in PG&E's service area. Therefore, projected electrical and natural gas demand would not significantly impact PG&E's level of service.

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 demolition and grading would be gas-powered or diesel-powered, and the later construction phases would require electricity-powered equipment. 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.

Operational

During operations, energy consumption associated with the roadway improvements would be nominal. The project would increase travel lanes by adding a designated right-hand turn lane. However, vehicle trips would not increase and the project improvements would reduce idling time. Furthermore, the project site and surrounding areas include existing gasoline fuel facilities. Consequently, fuel consumption associated with vehicle trips generated by the proposed project would not be considered inefficient, wasteful, or unnecessary. Also, 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. The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, impacts are considered less than significant, and no mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed project would be required to comply with existing regulations, including applicable measures and regulations that would directly reduce energy use. This would include conformance with statewide regulations related to the use of low carbon fuel standards and increasingly stringent Renewable Portfolio Standards. Additionally, the project would be required to comply with Sonoma County Ordinance 7D1-2, which pertains to Chapter 7 of the Sonoma County Code for energy efficiency. As such, the project would not conflict with any other state-level regulations pertaining to energy or result in a wasteful, inefficient, or unnecessary use of energy due to the project. Thus, the proposed project would comply with existing State energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts in this regard would be less than significant and mitigation is not required.

Cumulative Impacts

As discussed above, the use of fuel consumption during construction of the proposed project would not be inefficient, wasteful, or unnecessary. The proposed project would use an incrementally small volume of fuels and would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Therefore, the project's cumulative contribution of energy use would be less than significant, and the project's cumulative energy impacts would also be less than cumulatively considerable.

4.7 Geology and Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
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?				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. Fault rupture can occur along or immediately adjacent to faults during an earthquake. Fault rupture is characterized by ground cracks and displacement which would endanger life and property. Damage is typically limited to areas close to the moving fault. While the project site is located in an area that would be susceptible to very strong ground shaking, no known active faults cross the project site, and the project site is not located within an Alquist-Priolo Earthquake Fault Zone (CDOC, 2023).

The nearest earthquake fault to the project site that is zoned as active by the State of California Geological survey and mapped by the CDOC is the Rodgers Creek Fault, located approximately 3.3 miles northeast of the project site. The nearest quaternary fault line to the project site is located approximately 0.25-mile to the west.

The proposed project does not propose the construction of any habitable structures and proposed uses would be consistent with existing roadway development on the project site. Although, the project is not anticipated to be substantially affected by seismic activity, the project would comply with General Plan Safety Element Policy Objective PS-1 which requires site specific, design-level, geotechnical investigations be undertaken for any development in areas where potentially serious geologic risks exist.

Compliance with General Plan policies and plan check criteria, and other applicable sections of the California Building Code (CBC), would ensure all needed structural designs and other measures would be incorporated to the proposed project prior to the issuance a building permit. Conformance with all applicable building standards as listed and conformance to the design and review process would ensure impacts associated with ground shaking would be less than significant. No mitigation would be required.

ii. Strong seismic ground shaking?

Less than Significant Impact. Based on the discussion above, the project site is not expected to experience significant seismically related ground shaking. Because the project site is in a seismically active region, it may experience strong ground shaking. The proposed improvements would be constructed in accordance with applicable County codes and the CBC. All construction plans and related geotechnical plans and studies would be reviewed by County further ensuring compliance with all building standards. Impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction generally occurs as a "quicksand" type of ground failure caused by strong ground shaking. The primary factors influencing liquefaction potential include groundwater, soil type, relative density of the sandy soils, confining pressure, and the intensity and duration of ground shaking. The project site is not located in a State seismic hazard zone specific to liquefaction (CDOC, 2023). Therefore, there would be no impact.

iv. Landslides?

No Impact. Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. The project site is relatively flat and is not located in an area mapped as an earthquake-induced landslide hazard area (CDOC, 2023). Therefore, there would be no impact.

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

Less than Significant Impact. The proposed project would be constructed in a manner that minimizes soils erosion and loss of topsoil. To minimize erosion during construction, the project contractor would be required to implement a SWPPP to comply with the NPDES General Permit administered by the State Water Resources Control Board (SWRCB). The SWPPP would identify structural and non-structural best management practices (BMPs) to control erosion and would include a spill prevention and control plan to ensure transport, storage, and handling of hazardous materials required for construction is consistent with all relevant regulation and guidelines. In addition, the proposed project would comply with all the City's construction standard specification, design standards, and would have to submit required standard plans. Following construction, the project site would be fully paved, similar to existing conditions. Therefore, a less than significant impact would occur.

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?

Or,

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?

Less than Significant Impact. The project site is not in a sensitive geological area. However, foundations and roadway may be damaged depending on soil characteristics such as shrink-swell potential, permeability, and low strength; foundations and roadways could fail, especially if located on soils of differing properties and improperly mixed and compacted. The proposed project would comply with all County grading and construction standards to reduce impacts related to soils including any landslide potential, lateral spreading, subsidence, liquefaction, collapse, or expansive soils. In addition, the County would ensure that the design specifications of all site-specific geotechnical reports prepared for the proposed project are incorporated to project design and implemented during construction. Therefore, the impacts are less than significant and no mitigation is required.

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?

No Impact. No wastewater systems or septic tanks are proposed as part of the project. Therefore, no impacts on soils related to the use of septic tanks would occur. No mitigation is required.

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

Less than Significant with Mitigation Incorporated. Paleontological resources are typically found in geologic strata that was deposited during the Pleistocene Epoch which includes the time between 2.6 million years ago until approximately 11,700 years ago. The Holocene Epoch began about 11,700 years ago and consists of younger sedimentary deposits and fossils that are considered less likely to be found. Because the project site has been previously developed with roadway infrastructure and depth of excavation would be consistent with previous site improvements, it is unlikely that grading and excavation would inadvertently unearth unknown paleontological resources.

Nonetheless, there is a possibility that future ground-disturbing activities could uncover and cause damage to, or the destruction of, previously undiscovered paleontological resources or unique geologic features. Implementation of MM GEO 4.7-1 would reduce potential impacts to a less-than significant level. MM GEO 4.7-1 would require notification of a qualified paleontologist if during initial site disturbance and excavation activities paleontological resources are uncovered. As part of the mitigation, a resource recovery plan would be implemented, and this would reduce impacts to less-than-significant.

Mitigation Measure

MM GEO 4.7-1: If any paleontological resources are encountered during ground-disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and

fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and County are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular on-sites soil characteristics, proximity to faults, topography, and proposed land uses. Development projects are analyzed on an individual basis and must comply with established requirements of the applicable jurisdiction's development standards and the CBC as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Cumulative effects related to geology resulting from the implementation of future development of the proposed project as well as surrounding areas could expose more persons and property to potential impacts due to seismic activity. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. Implementation of other cumulative projects would incrementally increase the number of people and structures subject to a seismic event. Seismic and geologic significance is considered on a project-by-project basis through the preparation of design-level geotechnical studies. The potential for any project to be affected by or any project to exacerbate and existing geotechnical hazard would be minimized or not occur through strict engineering guidelines as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Development the proposed project as well as all past, present, and future projects would be required to be constructed in accordance with the latest edition of the CBC and to adhere to all current earthquake construction standards, including those relating to soil characteristics set forth by the County. Therefore, no elements of the proposed would contribute to any cumulatively considerable geologic and/or soils impacts. Therefore, cumulative effects of increased seismic risk would be less than significant

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

The greenhouse gas emissions modeling listed in Appendix A was utilized in this analysis..

Existing Setting

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases (GHGs) that contribute to global climate change have a broader global impact. Global climate change is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back into space.

BAAQMD CEQA Guidelines, recommend that all GHG emissions from a project be estimated, including a project's direct and indirect GHG emissions from operations. Because the proposed project is a public utility project and would not generate any vehicle trips, the proposed project is not expected to generate GHG emissions and would not conflict with any plan related to the reduction of GHG emissions.

The BAQQMD does not have an adopted Threshold of Significance for construction-related GHG emissions. However, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction and make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. The Lead Agency is encouraged to incorporate best management practices, such as recycling at least 50 percent of construction waste or demolition materials, to reduce GHG emissions during construction, as applicable.

The primary existing sources of human-caused GHGs in the project area are vehicle emissions from existing roadways.

Applicable Plans, Policies, and Regulations

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it was found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year

2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.[6]

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.)[7] The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration repealed SAFE Rule Part One, effective January 28, 2022, and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a rigorous assessment of current and future technologies. The updated standards will result in avoiding more than three billion tons of GHG emissions through 2050.[8]

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2e in the world and produced 369 million gross metric tons (MMT) of CO_2e in 2020.[9] The

6 U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2,* 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. (Accessed July 14, 2023).

7 U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program*, September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. (Accessed July 14, 2023).

8 U.S. EPA, *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026,* 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. (Accessed July 14, 2023).

9 California Air Resources Board, *Current California GHG Emissions Inventory Data, 2000-2020 GHG inventory (2022 Edition)*. Available at: https://ww2.arb.ca.gov/ghg-inventory-data. (Accessed July 14, 2023).

transportation sector is the State's largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

Assembly Bill (AB) 32 – The California Global Warming Solutions Act of 2006

California AB 32 was signed into law in September 2006. The bill requires statewide reductions of GHG emissions to 1990 levels by 2020 and the adoption of rules and regulations to achieve the most technologically feasible and cost-effective GHG emissions reductions.

Senate Bill 32

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan (CARB, 2017b). The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

CARB Scoping Plan

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and

trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects. CARB specifically states that Appendix D does not address other land uses (e.g., industrial). However, CARB plans to explore new approaches for other land use types in the future.

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet AB 32's GHG reduction goals. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies. The applicable sustainable community strategy in the Bay Area is Plan Bay Area 2040.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards passenger vehicle and light duty truck model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078, SB 107, and SBX1-2 (Renewable Electricity Standards)

SB 1078 (2002) required California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 (2006) changed the due date to 2010 instead of 2017. On November 17, 2008, Executive Order S-14-08 established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SB X1-2 codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements Executive Order B-30-15's goals. The SB 350 objectives are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

AB 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. The bill requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

AB 1279 (The California Climate Crisis Act)

AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage technologies.

SB 1020 (100 Percent Clean Electric Grid)

Signed on September 16, 2022, SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

SB 905 (Carbon Sequestration Program)

Signed on September 16, 2022, SB 905 establishes regulatory framework and policies that involve carbon removal, carbon capture, utilization, and sequestration. It also prohibits the injecting of concentrated carbon dioxide fluid into a Class II injection well for the purpose of enhanced oil recovery.

AB 1757 (Nature-Based Solutions)

Signed on September 16, 2022, AB 1757 requires State agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the state's tone and guide the actions of state agencies.

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07

Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009

Executive Order S-13-08

Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08

Issued on November 17, 2008, Executive Order S-14-08 expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09

Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO_2e ($MMTCO_2e$). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the state's climate adaptation plan to be updated every three years and for the state to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18

Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20

Issued on September 23, 2020, Executive Order N-79-20 established a goal to end the sales of new internal combustion engine vehicles in the state as soon as possible, and no later than 2035, and continue to phaseout fossil-fueled cars and trucks. By setting a course to end sales of internal combustion passenger vehicles by 2035, the Governor's Executive Order establishes a target for the transportation sector that helps put the state on a path to carbon neutrality by 2045. It is important to note that the Executive Order focuses on new vehicle sales for automakers, and therefore does not require Californians to give up the existing cars and trucks they already own.

Bay Area Air Quality Management District Thresholds

BAAQMD is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including the City of San José. BAAQMD also recommends methods for analyzing project-related GHGs in CEQA analyses as well as multiple GHG reduction measures for land use development projects. BAAQMD released its *Justification Report CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (BAAQMD Justification Report) in April 2022. BAAQMD Justification Report presents updates to the CEQA GHG thresholds from the 2017 CEQA Guidelines, which were not consistent with the statewide GHG target established by SB 32. The GHG thresholds of significance were updated to consider newer state reduction targets (e.g., SB 32) and plans for eventual carbon neutrality by 2045 (e.g., Executive Order B-55-18 and SB 1279), as well as evolving case law. The BAAQMD Justification Report (and thus the GHG thresholds) was adopted by the Board of Directors on April 20, 2022. In summary, the updated thresholds emphasize:

- Avoiding wasting electricity and developing fossil fuel infrastructure (i.e., natural gas plumbing or appliances) in new buildings that will be in place for decades and thus conflict with carbon neutrality by 2045.
- Compliance with California Green Building Standards Code (CALGreen) Tier 2 EV requirements and per capita VMT reductions consistent with SB 743.
- Consistency with a qualified GHG reduction strategy (also known as a Climate Action Plan).

Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM10 standard). The 2017 Clean Air Plan: Spare the Air, Cool the Climate was adopted on April 19, 2019, by BAAQMD.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how BAAQMD will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Sonoma County Regional Climate Action Plan 2016

In 2016, Sonoma County adopted the Climate Action 2020 and Beyond Regional Climate Action Plan (CAP) which establishes the County GHG reduction goals below 1990 levels: 25% by 2020, 40% by 2030, and 80% by 2050, consistent with the state requirements. The CAP outlines the reduction efforts in six major GHG source areas, including building energy, transportation and land use, solid waste, water and wastewater, livestock and fertilizer, and advanced climate initiatives. Notably, based on projections from the 2010 GHG inventory, Sonoma County is not expected to meet the 2015 goal of 25% below 1990 levels. Furthermore, the County's population is projected to increase by 5% between 2010 and 2020, and employment is projected to increase by 13% over the same period. The two main factors which influence the growth of GHG emissions in the County are from population and economic growth.

Sonoma County Permit Sonoma General Plan: Open Space and Resource Conservation Element[10]

Policy OSRC-14g: Develop a Greenhouse Gas Emissions Reduction Program, as a high priority, to include the following:

(1) A methodology to measure baseline and future VMT and greenhouse gas emissions

(2) Targets for various sectors including existing development and potential future development of commercial, industrial, residential, transportation, and utility sources

(3) Collaboration with local, regional, and State agencies and other community groups to identify effective greenhouse gas reduction policies and programs in compliance with new State and Federal standards

(4) Adoption of development policies or standards that substantially reduce emissions for new development

(5) Creation of a task force of key department and agency staff to develop action plans, including identified capital improvements and other programs to reduce greenhouse gases and a funding mechanism for implementation

[10] Sonoma County Permit Sonoma General Plan Open Space and Resource Conservation Element. 2020. Available at: https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Archive/_Documents/General-Plan-Open-Space-and-Resource-Conservation-Element.pdf. (Accessed July 14, 2023).

(6) Monitoring and annual reporting of progress in meeting emission reduction targets

Policy OSRC-14i: Manage timberlands for their value both in timber production and offsetting greenhouse gas emissions

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

Less than Significant.

Short-Term Construction Greenhouse Gas Emissions

Construction GHG emissions were estimated using the RCEM. RCEM is a data-entry spreadsheet that utilizes various sources to estimate construction emissions, including OFFROAD and EMFAC2017 emissions factors. RCEM is recommended by Caltrans and BAAQMD as it is specifically developed to estimate emissions associated with roadway construction projects since the default equipment, activities, and typical phasing are different than those of land use development projects and building construction projects. For the purpose of this environmental analysis, project construction is expected to occur over an approximately nine-month period. Construction activities would include demolition, grading, paving, and architectural coating for striping and signage.

Construction of the project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site. BAAQMD and NSCAPCD do not have a threshold for construction GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. However, BAAQMD advises that construction GHG should be disclosed and a determination on the significance of construction GHG emissions in relation to meeting AB 32 GHG reduction goals should be made. Total GHG emissions generated during all phases of construction were combined and are presented in **Table 4-3: Construction Greenhouse Gas Emissions**. The RCEM outputs are contained within the, Air Quality and Greenhouse Gas Emissions Models output data listed in Appendix A.

Table 4-3: Construction Greenhouse Gas Emissions

Year	$MTCO_2e$[1]
2025	590
Amortized	39.5
$MTCO_2e$ = metric tons of carbon dioxide equivalent. 1. Due to Rounding, Total $MTCO_2e$ may be marginally different from RCEM output.	
Source: RCEM version 9.0.0. Refer to Appendix A for model outputs.	

As shown in **Table 4-3**, project construction-related activities would generate approximately 590 $MTCO_2e$ of GHG emissions over the course of construction. One-time, short-term construction GHG emissions are typically summed and amortized over the project's lifetime (assumed to be 15 years). It is reasonable to look at a 15-year time frame for roadway projects since this is a typical interval before new full depth reclamation is required. This is a conservative time frame and emissions

would be below thresholds. The amortized project emissions would be approximately 39.5 $MTCO_2e$ per year. Once construction is complete, the generation of construction-related GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of the proposed project. Generally, GHG emissions would result from direct emissions such as project generated vehicular traffic, and operation of any landscaping equipment. The project would not include any structures which would provide energy, waste, water, or wastewater emissions. Additionally, no vehicle trips are associated with the project. Therefore, no GHG emissions are expected to be generated from operation of the proposed project and impacts are less than significant.

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

Less Than Significant. The proposed project would comply with all BAAQMD and NSCAPCD applicable rules and regulations during construction 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.

Cumulative Impacts

It is generally the case that an individual project of the project's size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. Thus, the project would not conflict with any GHG reduction plan. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.

4.9 Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
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?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
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?				**X**
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?				**X**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			**X**	

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

Less than Significant Impact. 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 during construction. 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 U.S. EPA, the California Department of Toxic Substances Control, the California Department of Transportation (Caltrans), the California Occupational Safety and Health Administration, the Resource Conservation and Recovery Act, and the County's Hazardous Materials Management Ordinance (HMMO).

During project operations, 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. Compliance with applicable federal, local, and state requirements would ensure no significant hazard to the public or the environment are created through the routine transport, use, or disposal of hazardous materials. Thus, impacts would be less than significant.

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

Less than Significant Impact. The project is not anticipated to result in a release of hazardous materials into the environment. Potential hazards resulting from the handling or storage of hazardous materials on-site during construction would be minimized by the adherence to the BMPs identified in the SWPPP produced for the proposed project. The BMPs include proper material use, waste disposal, and training of employees and subcontractors. Once it is constructed, the project is not anticipated to result in releases of hazardous materials into the environment.

In addition, Kimley-Horn and Associates, Inc. reviewed information from Department of Toxic Substances Control (DTSC)'s Envirostor website (http://www.envirostor.dtsc.ca.gov/public/ accessed April 13, 2023) and the State Water Resources Control Board's Geotracker website (http://geotracker.waterboards.ca.gov/ accessed April 13, 2023) to obtain an understanding of any releases of regulated substances or petroleum products that occurred on or near the project site. The searches did not identify any open hazardous release sites within areas of project improvements that would have an adverse environmental impact.[11] The closest is a completed and closed LUST Cleanup site at 365 Adobe Rd. This Cleanup site has been closed as of 2004 and therefor would not result in the release of a hazardous material due to the project. Project operations would not require use of hazardous materials. Therefore, project implementation would not create significant hazard through upset or accident conditions involving release of hazardous materials and impacts would be less than significant.

c) 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 closest school, Penngrove Elementary School located at 365 Adobe Road is immediately adjacent to the project in the northwest quadrant of the project intersection. As discussed above, the project is not associated with the routine transport or use of hazardous materials. Project construction would result in limited dust and emissions from equipment operations, however, would not be of the scale to impact surrounding schools. Therefore, the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of a school and a less than significant impact would occur.

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?

No Impact. Government Code Section 65962.5 refers to the Hazardous Waste and Substances Site List, commonly known as the Cortese List. 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 (USTs) 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. The project site is not included on the hazardous sites list compiled pursuant to California Government Code Section 65962.5.[12] Therefore, the project would have no impact.

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?

[11] California, State of, State Water Resources Control Board. Available at: http://geotracker.waterboards.ca.gov/ California, State of, Department of Toxic Substances Control, DTSC's Envirostor Tool. Available at: http://www.envirostor.dtsc.ca.gov/public/ Accessed: April 12, 2023.

[12] California Department of Toxic Substances Control. (2022). DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). Retrieved from https://dtsc.ca.gov/dtscs-cortese-list/. Accessed April 12, 2023.

No Impact. The project site is not located within two miles of a public airport or private airstrip. The project site is located approximately 4.0 miles northwest of Petaluma Municipal Airport, the closest airport. The project site is not located within the safety zones for the airport as shown in the Sonoma County Comprehensive Airport Land Use Plans. Further, the proposed project would not construct structures that would be occupied by residents or workers. Therefore, the proposed project would not result in a safety hazard or excessive noise for people in the project area, no impacts would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Implementation of the project would not impair or physically interfere with an adopted emergency response or evacuation plan. The Sonoma County Emergency Operations Plan (EOP) was prepared by the Sonoma County Fire and Emergency Services Department to outline policies and procedures and assign responsibilities to ensure the effective management of emergency operations. The EOP outlines the overall organizational and operational concepts in relation to response and recovery and includes the roles and responsibilities of the various committees and agencies during an emergency, and the activation and execution procedures of the emergency response system.

No revisions to the EOP would be required as a result of the proposed project. Primary access to all major roads would be maintained during construction of the proposed project. During construction of the project, there would be a need for temporary lane closures along project roadways. However, traffic lanes in each direction would remain open and if necessary, detours would be provided to maintain vehicular access. Therefore, impacts associated with emergency response or evacuation plans would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. CAL FIRE identifies Fire Hazard Severity Zones (FHSZ) and designates State or Local Responsibility Areas (SRA/LRA) within the state of California. New developments located in Very High Fire Hazard Severity Zones (VHFHSZ) are required to comply with exterior wildfire design and construction codes as well as vegetation clearance and other wildland fire safety practices for structures. The project site is mapped as a non-VHFHSZ.[13] The project site is not located within or adjacent to a VHFHSZ.

The proposed project would improve an existing intersection located in the unincorporated area of Sonoma County. The proposed project would not include structures that would expose residents or workers to hazards associated with wildland fires. Further, the proposed project is not located in a VHFHSZ. Therefore, a less than significant impact would occur.

Cumulative Impacts

As noted above, the proposed project would not result in significant impacts related to hazards or hazardous materials. Impacts associated with hazardous materials are often site-specific and localized.

[13] California Department of Forestry and Fire Protection. (2008). Sonoma County Very High Fire Hazard Severity Zones in LRA. Retrieved from https://osfm.fire.ca.gov/media/6820/fhszl_map49.pdf, Accessed October 12, 2022.

The database searches performed through Envirostor and Geotracker document the findings of various governmental database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons and serves as the basis for defining the cumulative impacts study area. Although some of the cumulative projects and other future projects associated with buildout of the surrounding communities could have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are typically site specific.

Projects are required to address any issues related to hazardous materials or waste. Projects must adhere to applicable regulations for the use, transport, and disposal of hazardous materials and implement mitigation in compliance with Federal, State, and local regulations to protect against site contamination by hazardous materials. Compliance with all applicable Federal, State, and local regulations related to hazardous materials would ensure that the routine transport, use, or disposal of hazardous materials would not result in adverse impacts. Any demolition activities associated with projects that effect asbestos or lead based paint would also occur in compliance with SCAQMD Rule 1403 and the CalOSHA Construction Safety Orders, which would ensure that hazardous materials impacts would be less than significant. Additionally, site-specific investigations would be conducted at sites where contaminated soil or groundwater could occur to minimize the exposure of workers and the public to hazardous substances.

4.10 Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			**X**	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			**X**	
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?			**X**	
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?				**X**
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?			**X**	
iv. Impede or redirect flood flows?				**X**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				**X**

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			**X**	

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The project site falls within the Petaluma Valley Groundwater Basin. Penngrove Creek, also known as Owens Creek, is a blue-line creek located within the Petaluma River Watershed and flows through the project site via an underground drainage conduit. The "Total Maximum Daily Load" (TMDLs) regulations for bacteria and nutrients within this watershed were established in 2021. The most sensitive beneficial uses supported by the Petaluma River includes uses associated with the remaining natural tidal brackish marsh, supporting primarily pickleweed, cordgrass, alkali bulrush, and saltgrass.

The project will require construction activities within the banks of Penngrove Creek. During the project grading activities, trenching for utilities, and other standard ground-disturbing activities topsoil would be exposed. After grading and prior to overlaying the ground surface with the new roadway and impervious surfaces, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants. If not properly controlled, this has the potential to violate water quality standards or waste discharge requirements.

In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, BMPs would be implemented. BMPs would be used to reduce the potential for pollutants in stormwater runoff from leaving the site. BMPs could include, but are not limited to, tracking controls, perimeter sediment controls, drain inlet protection, wind erosion/dust controls, and waste management control. The BMP's would be implemented in accordance with a site-specific Storm Water Pollution Prevention Plan (SWPPP), which would be developed to comply with the National Pollution Discharge Elimination System (NPDES).

Following compliance with and completion of NPEDS permit, SWPPP, BMPs, and conformance to applicable Federal, State, and Local regulations, the proposed project would have a less than significant impact related to water quality and water discharge requirements with conformance to the listed regulations. Additional mitigation would not be required.

b) 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. The proposed project consists of roadway improvements and does not include uses such as residential, commercial, or industrial, that would result in an increased

demand for groundwater. During construction, a minimal amount of water would be used for construction and would be needed for activities such as watering bare ground for erosion control. Water use would cease following construction. In addition, the proposed improvements would be located within existing roadways with impervious surfaces. Accordingly, project implementation would not introduce new impervious surfaces that could reduce the potential for groundwater infiltration. Thus, impacts from project implementation and operation would be less than significant in this regard.

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?

Less than Significant Impact. Implementation of the proposed project would potentially cause minor alterations to Penngrove Creek. The existing roadway is an impervious surface and water drains to roadside drop inlets. The project improvements would increase impervious surfaces and incrementally increase the volume of stormwater runoff.

The County grading ordinance design requirements, adopted County grading standards and best management practices (such as silt fencing, straw wattles, construction entrances to control soil discharges, primary and secondary containment areas for petroleum products, paints, lime and other materials of concern, etc.), mandated limitations on work in wet weather, and standard County grading inspection requirements, are specifically designed to maintain potential water quality impacts at a less than significant level during project construction. Therefore, construction activities associated with the proposed project are not anticipated to alter the existing drainage pattern of the site or area in a way that would result in downstream erosion and/or sedimentation. All construction activities are required to adhere to Sonoma County Code Sections 11-14-040 requiring that BMPs be incorporated in project activity to control surface water runoff.

In addition, as discussed in a), above. The proposed project would comply with the NPDES permit and implement a SWPPP with BMPs that would reduce the potential for substantial siltation and erosion. Thus, impacts from project implementation and operation would be less than significant in this regard.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

No Impact. The project site is not in the 100-year flood zone based on the online Sonoma County GIS tool. As depicted on the FEMA Flood Insurance Rate Map (FIRM) #06097C0891F, the project is located within Flood Zone 'X' defined as an area of minimal flood hazard (FEMA, 2014). Further, the project site is not within a Special Flood Hazard Area (SFHA), which is an "area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year." No impact would occur and no mitigation is required.

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?

Less than Significant Impact. The area surrounding the project site is comprised of gentle or flat slopes, where drainages flow into Penngrove Creek or the existing drop inlets. To further reduce the potential for effect related to flooding and water runoff, the project would include a SWPPP with BMPs to reduce the potential for pollutants carried by stormwater from leaving the site and adversely affect downstream receiving water. The BMPs would reduce the volumes of disturbed soils, erosion, sediment, and pollutants from roadways to the extent feasible, to make their way into downstream waters. A less than significant impact would occur.

iv. Impede or redirect flood flows?

No Impact. The proposed project would not alter the course of a stream or river and is classified as Flood Zone 'X', outside the 100-year flood zone. Project improvements would occur within the existing right-of-way and would not introduce new infrastructure or development with the potential to effect stormwater flows in the project vicinity. No impact would occur, and no mitigation is required.

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

Less than Significant Impact. The proposed project would be located within Flood Zone "X" which is an area of minimal flood hazard. There are no above ground structures or facilities that would be developed as part of the project and the project does not have the potential to redirect and flood flows. The proposed project is not located near an ocean and is not at risk of tsunami. It is not near an enclosed body of water such as a lake or inland sea and would not be susceptible to seiche. Impacts would be less than significant in this regard, and mitigation is not required.

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

Less than Significant Impact. The proposed project would not use groundwater for construction or operations and would not directly deplete groundwater supplies in this regard. Due to the deep groundwater table, groundwater would not be encountered during excavation and temporary dewatering and direct groundwater impacts are not anticipated for the proposed project. Further, the proposed project would occur within an existing roadway with impervious surface. The proposed project would not increase impervious surfaces on the project site and would not result in reduced groundwater infiltration from conversion of pervious surfaces. Impacts would be less than significant in this regard, and mitigation is not required.

Cumulative Impacts

Cumulative impacts to hydrology and water quality could occur as new development, redevelopment, and existing uses occur within the watershed. Although growth in Penngrove has been slow and has not added to substantial urbanization, new development and redevelopment projects would result in some increases

in impervious surfaces. This could generate increased runoff and reduce infiltration capacity from the affected project sites. Future developments in the watershed would be required to comply with the SWRCB and CVRWQB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits, develop Water Quality Control Plan as needed, prepare and implement SWPPPS, and implement BMPs, including LID BMPs to minimize runoff, erosion, and storm water pollution such as the project would implement. For projects outside Penngrove but within the basin, they would also be required to comply with applicable County and City codes of those jurisdictions. As part of these requirements, projects would be anticipated to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. As discussed above, the proposed project would not result in impacts to hydrology and water quality and would reduce the demand for potable water. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project would not result in substantial increases in storm water pollution, increased potential for flooding or subsequent effects, substantially alter any drainage patters, or deplete ground water. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.11 Land Use and Planning

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?			**X**	
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?			**X**	

a) Physically divide an established community?

Less Than Significant Impact. The proposed project would make transportation intersection improvements at two existing roadways in the community of Penngrove, Adobe Road and Main Street. The proposed project would construct a dedicated westbound to northbound right-turn lane on Adobe Road and a dedicated northbound to westbound left-turn lane on Main Street, as well as construct pedestrian curb ramps, ADA signal equipment, and signal improvements. Physical divisions of established communities, while they may be associated with roadway projects, typically occur when a new use is developed between two areas and severs or reduces a connection between the two. Projects that make travel between the areas more difficult can be considered to physically divide a community. The proposed project is surrounding by existing development including residential, commercial, and a school. The proposed project would increase the viability and ease of travel between these and other outlying areas by increasing the improved roadway capacity and improving the Level of Service (LOS). Thus, the proposed project would not physically divide any surrounding communities and impacts would be less than significant. No mitigation is required.

A new retaining wall would be installed on the north side of Adobe Road, east of the intersection, to accommodate the roadway widening for a dedicated right-turn lane. The existing box culvert running through the intersection would be extended at the northeast corner as part of the intersection widening. Overhead utilities would be relocated to accommodate the retaining wall construction. Additional right-of-way would be required in the northeast corner of the intersection to accommodate the construction the proposed dedicated westbound right-turn lane and retaining wall. Construction of the retaining wall would not impair mobility within the established community and thus impacts would be less than significant.

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?

Less Than Significant Impact. The key planning documents that are directly related to, or that establish a framework for the development of the proposed project include the Sonoma County General Plan and Zoning Ordinance. The proposed project site is currently within the public right-of-way (ROW) of the Penngrove Main Street (PNG) Local Guidelines (LG) combining zone. The proposed project would comply with the guidelines of this zone which implement General Plan Land Use Element policies in unincorporated areas. As a result, the proposed project would not result in any conflicts with existing land use policies adopted for the purpose of avoiding or mitigation an environmental effect. Therefore, potential impacts are considered less than significant.

Cumulative Impacts

Implementation of the proposed project would not create a significant cumulative impact to the surrounding region since its surrounding area is planned for uses that are consistent with the widening of the roadway, curb ramps, and other intersection improvements to improve existing traffic conditions and serve future planned uses. As a result, no cumulative impacts related to land use and planning would occur

4.12 Mineral Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			**X**	
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?			**X**	

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?

Less than Significant Impact. The project site is not located within a known mineral resource deposit area (Sonoma County Aggregate Resources Management Plan, as amended 2010). Sonoma County has adopted the Aggregate Resources Management Plan that identifies aggregate resources of statewide or regional significance (areas classified as MRZ-2 by the State Geologist). Consult California Geologic Survey Special Report 205, Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production-consumption region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California (California Geological Survey, 2013). Therefore, impacts would be less than significant.

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?

Less than Significant Impact. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into MRZs according to the known or inferred mineral potential of the area. Under SMARA, areas are categorized into MRZs as follows:

MRZ-1 Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.

MRZ-2 Areas where the available geologic information indicates that there are significant mineral deposits or that there is a likelihood of significant mineral deposits. However, the significance of the deposit is undetermined.

MRZ-3 Areas where the available geologic information indicates that mineral deposits are inferred to exist; however, the significance of the deposit is undetermined.

MRZ-4 Areas where there is not enough information available to determine the presence or absence of mineral deposits.

In 2013, the California Geological Survey (CGS) published an updated Mineral Lands Classification Maps within the County that covered the project site. Within the maps the project site is designated as MRZ-1, areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources. Therefore, the proposed project would not result in the loss of availability of a locally-important mineral resource recovery site. Impacts would be less than significant.

Cumulative Impacts

The proposed project would not, make a substantial contribution to the loss of a mineral resource. The proposed project would not preclude any area from use as mineral extraction and it is not feasible to use the project site for mineral resources. Thus, the proposed project would not in conjunction with any other past present or reasonably foreseeable project result in a cumulative significant impact. As a result, no cumulative impacts related to mineral resources would occur and mitigation is not required.

4.13 Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?			**X**	
b) Generation of excessive groundborne vibration or groundborne noise levels?			**X**	
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?				**X**

The noise modeling listed in Appendix A was utilized in this analysis.

Existing Setting

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 p.m. to 7:00 a.m. 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 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

The primary existing noise source in the project area is vehicle traffic, including cars, trucks, buses, and motorcycles on roadways near or in the project vicinity. The level of vehicular noise generally varies with the volume of traffic, the number of trucks or buses, the speed of traffic, and the distance from the roadway. According to the Sonoma County General Plan, the project roadway segments are near noise impacted road segments. The closest residential property line is located approximately 50 feet from the proposed construction area and the closest school is approximately 25 feet.

Applicable Plans, Policies, and Regulations

Local Regulations

The Noise Element of the Sonoma County General Plan establishes goals, objectives and policies including performance standards to regulate noise affecting residential and other sensitive receptors. The general plan sets separate standards for transportation noise and for noise from non-transportation land uses.

Section § 9.56.040 of the Sonoma County Municipal Code Public Property Noise Limits. No person shall produce, suffer or allow to be produced by any machine, animal or device, or by any other means, a noise level, when measured on any public property, that is greater than the most restrictive noise standard applicable under this chapter to any private property adjoining the receiving public property. Furthermore, the Municipal Code outlines construction hours, which can be found in **Table 4-4: Construction Hours** below.

Table 4-4: Construction Hours

Day of Week	Construction Hours
Monday-Friday	8:00 a.m. to 6:00 p.m.
Saturday	9:00 a.m. to 6:00 p.m.
Sunday/City Designated Holidays	10:00 a.m. to 6:00 p.m.
Source: Sonoma County Municipal Code, Public Property Noise Limits, Section § 9.56.040, https://www.codepublishing.com/CA/Sonoma/html/Sonoma09/Sonoma0956.html. (Accessed August 7, 2023).	

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?

Less Than Significant Impact.

Construction

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. Construction activities associated with development of the project would include demolition, minor grading, paving, retaining wall construction, and architectural coating. Construction activities typically require the use of excavators, backhoes, pavers, and paving equipment. Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, and scrapers. 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 noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute.

Some of the roadway segments are adjacent to residential uses. Noise impacts for mobile construction equipment are typically assessed as emanating from the center of the equipment activity or construction site. For the proposed project, this center point would be approximately 50 feet or more from the nearest sensitive receptor structure. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery. **Table 4-5: Typical Construction Noise Levels** shows the typical construction noise levels.

Table 4-5: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source[1]
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80

Equipment	Typical Noise Level (dBA) at 50 feet from Source[1]
Paver	85
Pump	77
Roller	85
Saw	76
Shovel	82
Truck	84

1. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1+20Log(d_1/d_2)$

Where: $QWdBA_2$ = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. (Accessed August 8, 2023).

Project construction would occur approximately 50 feet from the nearest sensitive receptor to the northeast along Petaluma Hills Road, a single-family residence. Further, Penngrove Elementary School is located 25 feet to the northwest. These sensitive uses may be exposed to elevated noise levels during Project construction. The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to calculate noise levels during construction activities. RCNM is a computer program used to assess construction noise impacts and allows for user-defined construction equipment and user-defined noise limit criteria. Noise levels were calculated for each construction phase and are based on the equipment used, distance to the nearest property/receptor, and acoustical use factor for equipment.

The noise levels calculated in show estimated exterior construction noise at the closest sensitive receptors. Based on the calculations using the Road Construction Noise Model (RCNM), construction noise levels from the center of the project would range from approximately 67.3 dBA L_{eq} and 76.4 dBA L_{eq} at the nearest sensitive and commercial receptors, refer to **Table 4-6: Project Construction Noise Levels by Phase**.

Table 4-6: Project Construction Noise Levels by Phase

Construction Phase	Receptor Location			Modeled Exterior Noise Level (dBA L_{eq}) [2,3]	Noise Threshold (dBA L_{eq}) [4]	Exceeded?
	Land Use	Direction	Distance (feet) [1]			
Demolition	Residential	Southwest	200	69.8	80	No
	Residential	Northeast	220	70.0	80	No
	School	Northwest	300	67.3	80	No
Grading	Residential	Southwest	200	76.2	80	No
	Residential	Northeast	220	76.4	80	No
	School	Northwest	300	73.7	80	No
	Residential	Southwest	200	73.8	80	No

Building Construction	Residential	Northeast	220	74.0	80	No
	School	Northwest	300	71.3	80	No
Paving	Residential	Southwest	200	71.9	80	No
	Residential	Northeast	220	72.1	80	No
	School	Northwest	300	69.4	80	No

Notes:
1. Distance is from the nearest receptor to the main construction activity area on the Project site. Not all equipment would operate at the closest distance to the receptor.
2. Modeled noise levels conservatively assume the simultaneous operation of all pieces of equipment.
3. The FTA Noise and Vibration Manual establishes construction noise standards of 80 dBA $L_{eq(8\text{-}hour)}$ for residential uses and 90 dBA $L_{eq(8\text{-}hour)}$ for commercial and industrial uses.

Source: Federal Highway Administration, *Roadway Construction Noise Model,* 2006. Noise Modeling results are listed in Appendix A.

Construction activities would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. Further, construction would not take place directly adjacent to any building structures. Overall, this noise increase would be of short duration and would likely occur primarily during daytime hours. Because of the nature, time, and duration of construction activities near sensitive receptors noise impacts from construction activities would cease upon project completion. Therefore, implementation of the proposed project would have a less than significant impact relative to this topic.

Operations

The proposed project would not introduce any new uses that would result in an increase of noise levels. The project would improve existing roadways. The project would not directly increase vehicular trips in the study area. Additionally, the project does not include any stationary noise sources. Therefore, no long-term noise impacts would result with implementation of the proposed project. Operational noise impacts would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Construction

Increases in groundborne vibration levels attributable to the project would be primarily associated with construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). 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, depending on the building category of the nearest buildings adjacent to the potential pile driving area, the potential construction vibration damage criteria vary. For example, for a building constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 inch per second (in/sec) peak particle velocity (PPV) is considered safe and would not result in any construction vibration damage. In general, the FTA architectural damage criterion for continuous vibrations (i.e. 0.2 in/sec) appears to be conservative. The types of construction vibration impacts 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. Ordinary buildings that are not particularly fragile would not experience cosmetic damage (e.g. plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on soil composition and underground geological layer between vibration source and receiver.

Table 4-7: Typical Construction Equipment Vibration Levels*,* lists vibration levels at 25 feet and 50 feet for typical construction equipment.

Table 4-7: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity At 25 feet (in/sec)	Peak Particle Velocity At 50 feet (in/sec)
Large Bulldozer	0.089	0.032
Loaded Trucks	0.076	0.027
Rock Breaker	0.059	0.021
Jackhammer	0.035	0.012
Small Bulldozer/Tractors	0.003	0.001
Vibratory compactor/roller	0.210	0.074
1. Calculated using the following formula: PPVequip = PPVref x (25/D)1.5, where: PPVequip = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPVref = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, 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. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. (Accessed August 8, 2023).		

Groundborne vibration decreases rapidly with distance. As indicated in **Table 4-7**, 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 0.21 inches per second peak particle velocity at approximately 25 feet from the source of activity. The closest sensitive receptors property line in the project area is approximately 25 feet away from active construction zones. However, the nearest sensitive receptor structures are approximately 50 feet or more from the project site. Vibration from construction activities experienced at the nearest sensitive residential structures would range between 0.001 to 0.074 inches per second PPV, which is below the 0.20 inch-per-second PPV significance threshold. Therefore, a less than significant impact would occur.

Operations

Operational use of the project would not generate vibrational impacts. Use of the sidewalks and roadways 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. Impacts would be less than significant.

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 site is not within an airport land use plan as designated by Sonoma County. The project would not result in a permanent increase in ambient noise levels, because it would not increase traffic, or expose individuals to permanent noise impacts. The closest airport is Sonoma Valley Airport, approximately 15 miles away from the site. Therefore, implementation of the proposed project would have a less than significant impact relative to this topic.

Cumulative Impacts

Cumulative Construction Noise

The project's construction activities would not result in a substantial temporary increase in ambient noise levels. The County limits construction to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday. The project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the project's construction-related noise impacts would be less than significant following compliance with local regulations.

Construction activities at other planned and approved projects would be required to take place during daytime hours, and the County and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Each project would be required to comply with the applicable Sonoma County guidelines on allowable hours of construction. Therefore, project construction would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

Cumulative Operational Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the buildout to of the area. As discussed above, the project would not directly result in an increase in operations at the intersection of Adobe Road and Main Street. Therefore, no impact would occur.

4.14 Population and Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?			**X**	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			**X**	

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)?

Less Than Significant Impact. The proposed project does not include any residential uses that would directly generate new residents and increase the population within Penngrove or the County. The proposed project also would not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan, or that would require new employees or uses that would increase demand for permanent employees.

The proposed improvements at the Adobe Road and Main Street intersection include constructing a dedicated westbound to northbound right-right lane on Adobe Road, constructing a dedicated northbound to westbound left-turn lane on Main Street, curb ramps, etc. The associated improvements are to address existing inefficient operations at the intersection and would not lead to any unplanned population growth. The improvements would not directly or indirectly result in substantial unplanned population growth. Therefore, impacts in this regard would be less than significant.

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

Less Than Significant Impact. The proposed project would impact primarily the Penngrove ROW areas and would be within the existing roadway/intersection. Any improvements beyond that, within project acquisition areas, as identified in the project description, would not displace existing housing along the associated roadways. Therefore, the project would not displace any existing

people or housing, causing the construction of replacement housing. Impacts in this regard would be less than significant.

Cumulative Impacts

Overall, the proposed project would serve the demand from the existing population within the local vicinity and regional travelers. The proposed project is consistent with the planned land uses in the County's General Plan and the population and employment projections for the County and the region as a whole. While the proposed project result in minor takings, the project would not, in conjunction with other past, present, or reasonably foreseeable projects, make a substantial impact to cumulative growth. The proposed project and other projects that have been, will be developed, or that are in the planning process are considered in the context of their consistency with local and regional planning efforts to include population growth and the need for housing. Therefore, the proposed project would not cause a cumulatively considerable impact on population and housing and no mitigation is required.

4.15 Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?			**X**	
ii) Police protection?			**X**	
iii) Schools?			**X**	
iv) Parks?			**X**	
v) Other public facilities?			**X**	

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?

Less than Significant Impact. The project site is currently under the jurisdiction of the Rancho Adobe Fire Protection District. There would be no increased need for fire protection resulting from the improvements to the roads and the project would not require the provision of new or physically altered police protection facilities. The proposed project would not include additional residential units, or people within the County.

The proposed improvements would not result in an intensification of land use, or the addition of structures or uses that would differ from the current use or that would increase the number of residents that could increase demand for emergency services. Accordingly, the proposed

project would not require the expansion or development of a new fire station or any other fire infrastructure, the construction of which could result in impacts to the environment. Therefore, impacts are considered less than significant.

ii. Police protection?

Less than Significant Impact. The project site is currently under the jurisdiction of the Sonoma County Sheriff's Office. The proposed project would not include additional residential units, or people to the County. The proposed project includes the widening of Adobe Road and Main Street to incorporate designated turning lanes within the intersection. These improvements would not result in intensification of land use, or the addition of structures or uses that would differ from the current use or that would increase the number of residents that could increase demand for law enforcement services. Accordingly, the proposed project would not require the expansion or development of a new police station, or any other police related infrastructure, the construction of which could result in impacts to the environment. In addition, should emergency services be required, because the County boundaries would not change, the service areas for each department would not change. Thus, impacts would be less than significant, and no mitigation is required.

iii. Schools?

Less than Significant Impact. The proposed project would not include additional residential units, or people to Sonoma County. The proposed project would not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan or that would increase the number of residents that could increase demand for school services. Accordingly, the proposed project would not require the expansion or development of a school or any other education related infrastructure, the construction of which could result in impacts to the environment. Thus, Impacts would be less than significant, and no mitigation is required.

iv. Parks?

Less than Significant Impact. Construction of the project would not involve substantial adverse physical impacts associated with parks. The project would not alter or impede any existing or future park plans, as the project would not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan or that would increase the number of residents that could increase demand for parks. Accordingly, the proposed project would not require the expansion or development of any park, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

v. Other public facilities?

Less than Significant Impact. Other public facilities in the area such as health care, production, commercial, retail, residential, etc. would not be adversely impacted. The proposed project would not include additional residential units, or people within the County. The proposed project would not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan or that would increase the number of residents that could increase demand for or use of other public services. Accordingly, the

proposed project would not require the expansion or development of any of these resources, the construction of which could result in impacts to the environment. Thus, Impacts would be less than significant, and no mitigation is required.

Cumulative Impacts

The proposed project would not include additional residential units, or people to Sonoma County. The proposed project would not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan or that would increase the number of residents that could increase demand for or use of public services within the region. The proposed project also would not combine with past, present, and reasonably foreseeable project such that a cumulative impact would result. Lastly, the proposed project would not result in substantial incremental effects to public services or facilities that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable projects. The project alone would not result in cumulatively considerable impacts to public services or facilities.

4.16 Recreation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?			**X**	
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?			**X**	

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?

Less Than Significant Impact. The proposed project does not include any residential units or any other type of use that would increase the population, or park and recreation facility demand in the area, or include any other type of use that would directly increase the use of park and recreation facilities. The proposed project would not result in an intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. Therefore, the proposed project would not result in a substantial increase on the demand for existing recreational resources such that substantial physical deterioration would occur or be accelerated. Thus, impacts of the proposed project would be less than significant in this regard and mitigation is not required.

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?

Less Than Significant Impact. The proposed project consists of intersection improvements and does not include any new recreational resources that could result in impacts on the environment beyond those already evaluated as part of this document. Thus, the proposed project would not have a significant adverse physical effect on the environment, impacts would be less than significant, and no mitigation is required.

Cumulative Impacts

Development of the proposed project would not create a significant cumulative increase of recreational facilities. In addition, the proposed project would not combine with other past, present, or reasonably

foreseeable projects and result in significant cumulative impacts. The project would not impact any existing recreation facilities and would not create a substantial population increase to impact existing recreational facilities. Therefore, no cumulative impacts on recreational facilities would occur.

4.17 Transportation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			**X**	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			**X**	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
d) Result in inadequate emergency access?			**X**	

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. No new structures, uses, or visitor serving areas are included in the project. The proposed project does not result in an overall increase in vehicle trips but would serve existing deficiencies along Adobe Road and Main Street. The proposed project does not include any trip generating uses that would result in additional vehicle miles travelled or a reduction of LOS. The proposed project also would include sidewalks and curb ramps along the widened roadway that would provide residents and users in the area with access to alternative transportation uses. Further, the project would be required by County Transportation and Public Works to ensure that the sightlines, road material, and width for both the existing and proposed driveways meet American Association of State Highway and Transportation Officials (AASHTO) and County design standards. Impacts in this regard would be less than significant, and no mitigation is required.

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

Less than Significant Impact. CEQA Guidelines Section 15064.3 states that "vehicle miles traveled" (VMT) is the preferred metric evaluating transportation impacts, rather than LOS. VMT measures the total miles traveled by vehicles generated by a project. While LOS focuses on motor vehicle traffic, VMT accounts for the total environmental impact of a project on transportation, including

use of travel modes such as buses or bicycles. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric.

As discussed in a) above, the proposed project does not include any new uses or structures, or visitor serving areas and it would not result in an overall increase in vehicle trips or vehicle miles travelled. The proposed project would serve existing uses and improve the level of service and functionality of the intersection and roadways. Thus, impacts related to increased VMT are less than significant.

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

Less than Significant Impact. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that could impede emergency vehicles or emergency access. The project does not include any design features or incompatible uses that pose a significant safety risk. The project would create no adverse impacts to emergency vehicle access or circulation. Therefore, project implementation would have a less than significant impact in this regard.

d) Result in inadequate emergency access?

Less than Significant Impact. Construction activities may result in traffic delays possibly slowing emergency response vehicles or restricting access to residences or nearby businesses. This is a short term construction related impact that will cease upon project completion. Emergency vehicle access would be maintained at all times throughout construction activities, in accordance with the County routine/standard construction specifications as applicable. Detour routes are available, with access to the surrounding areas being provided by Woodward Avenue, Oak Street, and Old Redwood Highway.

No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that would impede emergency access to any local roadways or surrounding properties or result in a safety risk. All driveways and roads would be constructed to accommodate all emergency vehicles and would be required to ensure compliance with the California Fire Code, as adopted and amended by Sonoma County Code. Project compliance with County Fire Safe Standards involving access and circulation provisions (Sonoma County Code Chapter 13) and Fire Department approval of project compliance, would help ensure adequate emergency access. Therefore, implementation of the proposed project would have a less than significant impact in this regard.

Cumulative Impacts

The proposed project would improve LOS at the intersection with the widening of the roadways to tie into existing and on-going roadway improvements and increase the functionality of travel in the area. The proposed project is intended to serve existing and planned uses and does not include any uses, combined with other past, present, and reasonably foreseeable projects that would contribute to an increase in VMT. Although other future uses in the vicinity including new residential uses may generate new vehicle trips, the proposed project would not generate new trips and would only serve to accommodate travel between existing and planned uses. Therefore, the proposed project would not result in incremental effects to transportation that could be compounded or increased when considered together with similar

effects from other past, present, and reasonably foreseeable probable future projects. Potential impacts are not cumulatively considerable and less than significant.

4.18 Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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				
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)?		**X**		
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?		**X**		

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:

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)?

And,

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?

Less Than Significant with Mitigation Incorporated. On November 19, 2022, a records search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed and results were negative. The NAHC provided twelve (12) Native American Contacts to be contacted regarding known and recorded cultural resources sites. On February 22, the following tribes were contacted regarding the proposed project. Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Federated Indians of Graton Rancheria, Guidiville Indian Rancheria, Lytton Rancheria, Middletown Rancheria, Middletown Rancheria of Pomo Indians, Mishewal-Wappo Tribe of Alexander Valley, Pinoleville Pomo Nation, and Robinson Rancheria of Pomo Indians. At the time of preparation of this document only the Graton Rancheria Tribe has requested formal consultation.

Due to the possible presence of unknown tribal cultural resources within the project site, construction related impacts on tribal cultural resources would be potentially significant. Though the circumstances would present a low possibility, the following mitigation measure would reduce impacts in the unanticipated discovery of cultural resources during construction. With the implementation of MM 4.5-1 through MM 4.5-3 above in Section 4.5 *Cultural Resources*, impacts would be less than significant.

Cumulative Impacts

The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the local area would be required to comply with all applicable State, federal, and County and local regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required mitigation. Similar to the proposed project, these projects also would be required to implement and conform to mitigation measures, which would be likely to reduce impacts to less than significant. Although in the process of roadway improvements, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. In addition, implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 would reduce project-specific impacts to a less than significant level. Therefore, the project's contribution to cumulative impacts would be less than significant.

4.19 Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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?			**X**	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			**X**	
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?			**X**	
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?			**X**	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			**X**	

a) 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?

Less than Significant Impact. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. The proposed

project would not include additional residential units, or people to the County such that new or expanded utilities would be required. No additional demand for water, wastewater, storm water drainage, electric power, natural gas, or telecommunications facilities will be created by the project.

The proposed project would construct a dedicated westbound to northbound right-turn lane on Adobe Road and a dedicated northbound to westbound left-turn lane on Main Street, as well as construct pedestrian curb ramps, ADA signal equipment, signal improvements, and a retaining wall. These improvements would involve the existing box culvert running through the intersection to be extended at the northeast corner as part of the intersection widening, as well as overhead utilities to be relocated to accommodate the retaining wall construction. These improvements are part of a planned effort to improve intersection operations and safety within the project area. Accordingly, the proposed project would not require the expansion or development of new utilities that, the construction of which could result in impacts to the environment. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. The proposed project would not include additional residential units, or people to the County such that new demand for water would occur, or such that new or expanded water infrastructure would be required. The proposed project would construct a dedicated westbound to northbound right-turn lane on Adobe Road and a dedicated northbound to westbound left-turn lane on Main Street, as well as construct pedestrian curb ramps, ADA signal equipment, signal improvements, and a retaining wall.

It should be noted that limited volumes of water would be necessary during construction related activities for watering of soils for dust control, washing vehicles, mixing materials, etc. This use, however, would be temporary in nature for construction related activities only, and would not be in substantial volumes. Thus, the proposed project would not result in substantial use of water from the existing supplies during normal, dry, or multiple dry years. The project water demand would be served through existing entitlements and resources. Impacts would be less than significant in this regard and mitigation is not required.

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?

Less than Significant Impact. As previously stated, the proposed project would not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. No additional demand for wastewater treatment, or other water treatment facilities would be needed or are proposed as part of the project. The proposed project could relocate some utilities within the project site to facilitate the transportation improvements such as electrical connections and horizontal movement of other lines (e.g., water, gas, etc.). The proposed project would not increase the service capacity of these lines and the relocation would not be made with the intent to serve undeveloped areas. Thus, the proposed project would not result in any new

wastewater generators, nor does it propose any improvements that would result in increased treatment demand by wastewater treatment provider that new capacity would be needed. Impacts would be less than significant, and mitigation is not required.

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?

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. The proposed project would generate solid waste as a result of removing existing roadway materials, vegetation, and some utility infrastructure. These materials would be disposed of or recycled by Recology Sonoma Marin. The proposed project would conform to the Sonoma County Code of Ordinances, Chapter 22 – Waste, Recycles, and Organics Regulations to meet a minimum 65 percent reduction as required by the California Green Building Standards Code. To meet the reduction requirements, the proposed project would use the Central Disposal Site, CalRecyle Solid Waste Information System Facility 49-AA-0001 (CalRecycle, 2023). The Central Disposal Site processes recyclables collected from the residential and commercial sectors of Sonoma County, construction and demolition debris, and commercial mixed waste. The Central Disposal Site has a remaining capacity of approximately 9.1 million tons with an estimated future closure date of June 2043. Accordingly, the facility would be available to accommodate C&D waste from the proposed project. The proposed project also would be required to meet all local, State, and federal requirements related to solid waste disposal. Therefore, these impacts are less than significant and no mitigation is required.

Thus, the proposed project would not interfere with regulations related to solid waste or generate waste in excess of the capacity of local infrastructure. The proposed project would have a less than significant impact in this regard.

Cumulative Impacts

Utilities are generally provided or delivered on a local level but often originate from sources outside local areas as most areas are served through the regional distribution system. As discussed above, the proposed project does not include any uses that would require long term utilities services within the exception of a minimal increase in electricity demand for ADA improvements. Taken in conjunction with past, present, and reasonably foreseeable projects the overall increased demand for utilities would be incrementally small and the project would not make a substantial cumulative contribution. Therefore, implementation of the project would not result in a cumulatively considerable contribution to impacts on water supply and wastewater, stormwater, or solid waste generation.

4.20 Wildfire

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			**X**	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			**X**	
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?			**X**	
d) 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?			**X**	

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. There is no adopted emergency response or evacuation plan for this area. As mentioned in Public Services Sub-section 15.a.i, the proposed project includes access improvements that comply with County-adopted Fire Regulations to ensure safe access for emergency vehicles concurrently with civilian evacuation, and unobstructed traffic circulation in the event of a wildfire emergency.

The proposed project could, during construction, require short term lane closures, and intermittent reductions in travel volumes and speeds due to the presence of equipment and personnel, but these interruptions would be temporary. After construction, the project would increase efficiency and safety at the intersection and improve the LOS within the roadways and intersections. This would improve the viability of the roadways for emergency access as well as evacuations. The proposed

improvements would intermittently require roadway maintenance; but such work is inherent to roadway operations and would not substantially hinder emergency access or evacuation. Therefore, impacts from project implementation would be considered less than significant in this regard.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant Impact. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project would not result in development of structures or housing which would subject residents, visitors, or workers to long-term wildfire danger. Improvements associated with the intersection are primarily within the existing roadway/intersection and would require only minor acquisition areas. These improvements would not increase risk of wildfire and do not include any structures. Therefore, impacts from project implementation would be considered less than significant in this regard.

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?

Less than Significant Impact. The proposed project includes standard infrastructure improvements associated with dedicated turn lanes and pedestrian and bicycle improvements. The project site is located in a Local Responsibility Area and is not located in a very high or high wildfire hazard severity zone and is predominantly surrounded by residential and commercial uses that are not prone to wildfire. The proposed project does not include the need for construction of use of roadways, fuel breaks, or water sources that could exacerbate wildfire hazards. The project would realign the above ground utility lines and poles adjacent to the new roadways, but the relocation would not be in any area prone to wildfire, and it would not result in temporary or long-term impacts in this regard. Impacts would be less than significant, and no mitigation is required.

d) 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?

Less than Significant Impact. The proposed project site is not in a VHFHSZ nor located near steep slopes or hillsides. The proposed project would implement efficient landscape maintenance practices and design measures to decrease the release of stormwater running off the site; therefore, the proposed project site would not expose people to downstream flooding or landslides as a result of runoff. Impacts would be less than significant.

Cumulative Impacts

The proposed project area is not subject to natural wildfire areas. Consequently, implementation of the proposed project would not create a significant cumulative impact that would exacerbate wildfires. Impacts would be less than significant.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the project:				
a) Have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) Have the potential to substantially 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, substantially 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?

Less than Significant with Mitigation Incorporated. This document analyses the potential for the proposed project to substantially 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.

Though the project occurs primarily within the existing roadway and ROW, Section 4.4, Biological Resources, identified potential impacts to special status species. With the implementation of mitigation MM 4.4-1 through MM 4.4-7 would be required to reduce potential impacts to less than significant.

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)?

Less than Significant with Mitigation Incorporated. The analysis in this Initial Study includes an evaluation of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, utilities and service systems, and wildfire. The analysis covers a broad spectrum of topics relative to the potential for the proposed project to have environmental impacts. It was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the project's contribution to cumulative impacts. There are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed project after the implementation of all mitigation measures.

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

Less than Significant. Potential adverse project effects on human beings were discussed in Section, Air Quality; Section, Geology and Soils (seismic hazards); Section, Hazards and Hazardous Materials; Section, Hydrology and Water Quality (flooding); Section, Transportation (traffic hazards); and Section, Wildfire. No potential adverse effects on human beings were identified. Potential adverse effects that were identified would be reduced to levels considered less than significant through compliance with applicable laws, regulations, and City ordinances and standards, along with mitigation measures where necessary.

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Appendix A

List of Technical of Studies Used in This Document

The following technical studies were used in the preparation of this document:

1. Air Quality and Greenhouse Gas Analysis Modeling Data Printout, prepared by Kimley-Horn and Associates, July 2023.
2. Biological Resources Report, Prepared by Sequoia Ecological Consulting, Inc., August 2023
3. Aquatic Delineation Report, Prepared by Sequoia Ecological Consulting, Inc., August 2023
4. Arborist Report, Sequoia Ecological Consulting, Inc., August 2023
5. Cultural Resources Assessment, Prepared by LSA, July 2023
6. Noise Modeling Data Printout, prepared by Kimley-Horn and Associates, July 2023